

Assessment of COVID-19 Awareness among University Students During Lockdown Period

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during Lockdown

Autif Hussain Mangi¹, Ghazala Shahzad³ and Ayaz Ahmed²

ABSTRACT

Objective: The COVID-19 pandemic first appeared in Wuhan, China, and then spread rapidly throughout the world. Many people still lack proper knowledge and information about COVID-19. It was essential to assess the awareness ratio among the local community particularly university students during the lockdown period.

Study Design: Cross-sectional descriptive study

Place and Duration of Study: This study was conducted at the University of Sindh from December 2020 to February 2021 during a period of smart lockdown all over Pakistan.

Materials and Methods: There were a total of 150 randomly selected male and female university students during the research work. There was an equal number of control group (undergraduate + intermediate) also selected for comparison. The data was statistically calculated in percent and frequencies by using SPSS software version 21. The statistical difference was determined by applying a t-test and the P- value of < 0.05 was set as significant.

Results: The results showed that the majority (90%) of university students were unaware of the Standard Operating Procedures (SOPs) related to COVID-19 prevention. Only 11-22% of university students had an awareness regarding social distancing and mask-wearing. 47% of female students at the university had an awareness about washing hands frequently with soap. A very low percentage (26-27%) of both male and female university students had awareness about the important use of hand sanitizers routinely. Most of the students (50%) belonging to the faculty of Natural sciences were aware of dealing with COVID patients in hospitals.

Conclusion: The university students were less aware of the COVID-19 precautions and preventive measures compared to undergraduate and intermediate-level students during a lockdown period in 2020-2021 in Hyderabad Sindh Pakistan. Compared to the students from other faculties, the Natural science students were a little bit aware of the COVID-19 SOPs. The female students were more frequent in washing their hands compared to males but the males were more proper in spending time washing hands. The males and females were equally aware of the important use of hand sanitizers. There is a necessity for proper training and awareness campaigns at the university level prior to the next wave of the COVID-19 pandemic in the future.

Key Words: COVID-19, Awareness, University student, and lockdown.

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INTRODUCTION

The coronavirus pandemic (COVID-19 pandemic) has hit the whole world, including Pakistan. In the beginning, a city named Wuhan in China first reported a rapid and huge number of strange cases of contagious disease with flu-like symptoms that lead to severe pneumonia¹.

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Later, it was identified as an infection caused by a virus known as SARS-COV2 that caused coronavirus disease or COVID-19². The COVID-19 spread all around the world later on due to its capability of generating new mutant strains. The first case of SARS-COV2 infection appeared in Pakistan on the 26th of February, 2020³ and the infected person was a male with a history of traveling back from Iran. The word corona was taken from the word crown as its crown-like appearance was quite visible under the microscope. The coronavirus was declared as a pandemic by World Health Organization (WHO) on March 11, 2020, because of its quick outbreaks and fast spread in the whole world⁴. The SARS-COV2 infection spread by touching, coughing, sneezing, and close contact. SARS stands for Severe Acute Respiratory Syndrome and SARS-COV2 likely originated from the bat and or from pangolins. Its Incubation period to exposure was from 5 to 6 days and ranged from 1 to 14 days⁵. The symptoms appeared mild to severe but sometimes it remained

asymptomatic. WHO announced precautionary tips and suggested all the countries and their governments follow those health tips which included wearing a face mask up to the nose, washing hands, avoiding close contact, staying home, avoiding shaking hands, use of sanitizers before and after touching any surface, keep a distance of about 6 feet of 1-meter distance etc⁶. Currently, there are many FDA-approved COVID-19 vaccines commercially available for prevention around the world⁷. The main health alert of COVID-19 is to stay at home and not to rush to public spots. The health alert of staying home and saving lives has put too much stress on school-going children, college and university students⁸. The government also imposes a lockdown in some areas where the infection cases seem to be increasing with each passing day⁹. Physical confinement and a ban on outdoor activities may cause depression in some people¹⁰. The mode of learning and working from physical to online may also disturb the efficiency and productivity of individuals. Since the government imposed an emergency lockdown in 2020-21 in Pakistan to contain the coronavirus¹¹ and the Physical methods of academic learning were shifted from Physical to online mode. At that time there was a dire need of teaching students about how to deal with the COVID situation during lockdown. The first step before teaching and training about COVID SOPs was to assess COVID-19 awareness during a lockdown period. So This kind of research work was significantly very important to first judge the attitude, practice, and awareness of University students towards following SOPs and then initiate an awareness campaign to properly train and prepare the university students for the next wave of COVID-19 infections in the future.

MATERIALS AND METHODS

This cross-sectional descriptive study was conducted during a period of emergency lockdown in Hyderabad Sindh Pakistan from December 2020 to February 2021. The questionnaire was distributed among students of the University of Sindh. The University students were informed about the study's nature and had the right to refuse to participate in the study without any consequences. Those interested in participation had to grant permission for the data generated from their entries, and only then could they fill out the questionnaire. The study protocol was matched and compared with already approved protocols by various Research and Ethics Committees of educational institutes. The informed consent was signed before the start of the study. The questionnaire was prepared based on the available information from the European and American Centers for Disease Control (ECDC and CDC, respectively) and the WHO. The questionnaire included multiple-choice questions intended to assess the participants' 1) sociodemographic characteristics, 2) knowledge, 3) attitudes, and 4) practices. About 50

students responded and the questionnaire had some sections like demographics & determination of awareness of the participants. The demographic section considered gender, age, faculty wise, upper & lower Sindh, and marital status. The second section assessed the participant's knowledge and awareness of COVID-19 by asking questions about the etiology, transmission, symptoms, risk groups & control, etc. The answers were yes or No & many additional options & the questions the preventive awareness about self-hygiene, wearing face masks, and keeping distance. The questionnaire responses were collected and saved in an Excel sheet as raw data. The demographic section and awareness knowledge section was separated in another Excel sheet manually. The data was further filtered by excluding the participants' details, and then the refined version of the data was selected for data interpretation. The selected data was entered in the pivot table to calculate the count and frequency. The average (mean), standard deviation, and percent count were measured. To calculate the comparison between the two groups, the paired t-test was applied, and for more than two groups, ANOVA single factor was done where the significance level was set to (<0.05).

RESULTS

Our research results have shown that the only 11% of Graduate students were keeping themselves distant (10 feet away) from the COVID-19 patients or the people with COVID-19 symptoms (Figure 1).

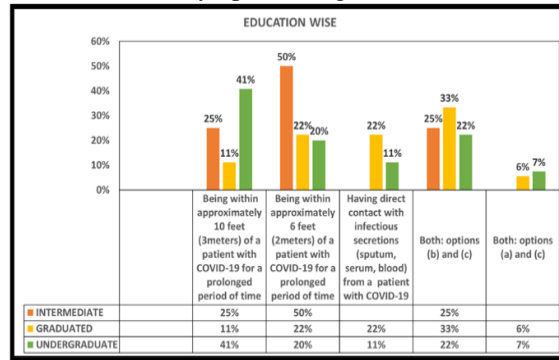


Figure No.1: Awareness regarding social distancing

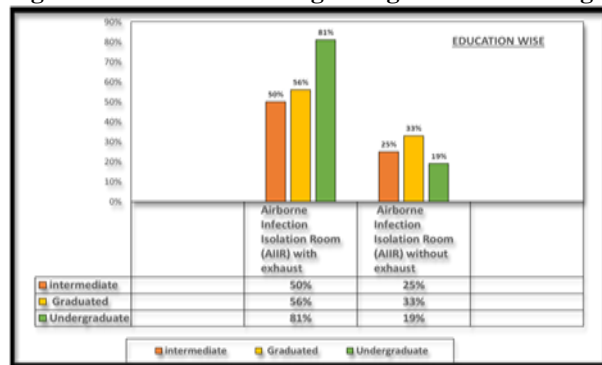


Figure No.2: Awareness regarding indoor-outdoor activities during COVID-19

22% of graduate students had the knowledge of keeping their selves at least 6 feet away from other people. 22% of Graduate students were having direct contact with infectious secretions, blood, serum, etc. For comparison, we assessed the awareness level of intermediate students and we found that 50% of them were keeping their selves 6 feet away from other people (Figure 1).

Our research results showed that 56% of University students frequently spent their time in isolated rooms (indoors) with air exhaust or ventilation (Figure 2). Whereas 33% of University students remained in isolated rooms without proper air ventilation. Comparatively 81% of undergraduate students were using air exhausting systems in isolated rooms (Figure 2).

The results from our research study have shown that 50% of university students belonging to the natural science faculty were well aware of the way to deal with COVID patients inside hospitals. Whereas only 3%, 11%, and 6% of university students affiliated with the faculty of Pharmacy, Faculty of business administration, and faculty of arts respectively were aware of dealing with the COVID patients.

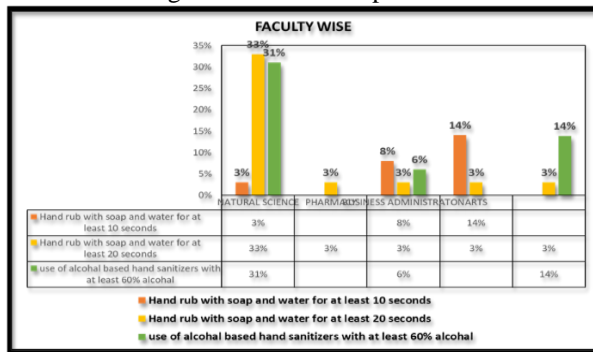


Figure No.3: Faculty-wise Awareness regarding hand washing.

The data results showed that 33% of university students from the faculty of natural science had a piece of good knowledge and practice about washing hands with soap for at least 20 seconds (Figure 3). Whereas 31% of natural science students were found using alcoholic sanitizer for hand rubbing (Figure 3). We compared the students from natural science with other students from different faculties and found that no other faculty students had sufficient knowledge about the effectiveness of handwashing during the COVID-19 period. Only 3 % of students from the pharmacy faculty, 3% from the faculty of business administration, and 3% from the faculty of arts were found washing their hands with soaps on a regular basis(Figure 3). The results showed that about 26% of female university students had proper knowledge about standard operating protocols and they knew how to deal with themselves after physically touching a COVID patient intentionally as well as unintentionally (Figure 4).

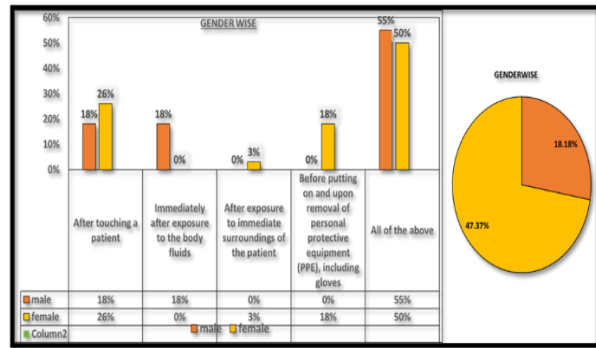


Figure No.4: Gender-wise Awareness regarding interaction with COVID patients

We could not gather any response from female university students regarding other aspects like immediately after exposure to body fluids, after exposure to a huge number of patients immediately, etc. On the contrary, Only 18% of male university students were found to be well-informed about protective and preventive measures for getting COVID after physically touching a COVID patient (Figure 4). The data results showed that 47% of female university students had good knowledge and practice about washing hands with soap for at least 10 seconds (Figure 5).

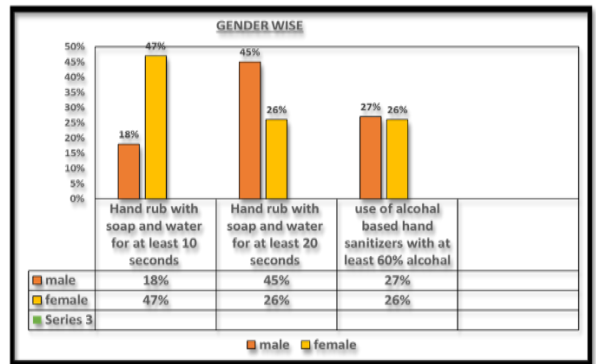


Figure No.5: Gender-wise Awareness regarding hand washing.

Whereas only 18% of male university students were interested in washing their hands for just 10 seconds during a COVID-19 period. However, our research data results also showed that only 26% of female university students were washing their hands for 20 seconds compared to 45% of male university students (Figure 5). The results showed that male university students were properly following the standard guidelines regarding washing hands. As far as the use of alcoholic sanitizers was concerned, it was observed that the male and female university students were equally aware of the role of sanitizers in killing Sarscov-2 from surfaces. There were 27% of males and 26% of females used hand sanitizers regularly (Figure 5).

DISCUSSION

We conducted this research study to assess the COVID-19 awareness level in university students during a period of lockdown and we found that the majority of students were unaware of the standard operating protocols during COVID-19 lockdown. A similar kind of study was also reported elsewhere¹². We found that the majority of University students were unaware of the fact that the chances of COVID-19 spread increase with isolated indoor gatherings possibly because they could not get an information source at home. Our study results are consistent to some extent with other researches¹³. We found that the majority of University students belonging to the faculty of natural science were aware of the standard operating protocols to deal with COVID patients compared to the university students from other faculties. The main cause of awareness in the majority of natural science students may be due to their background knowledge and field of study. Most of the departments under the Natural science faculty teach their students about lab safety, precautions, and preventive measures. It has been observed from our research conducted on University students that most of the students from the faculty of natural science had a good awareness of washing hands during the COVID-19 period. This may also be attributed to the affiliation of those students with their field of study. It was understood that female university students were better in terms of following SOPs than male university students. The main reason behind more awareness in female students compared to male students may be their source of knowledge and communication. As we have observed in other studies that during a lockdown period, females preferred to remain at homes¹⁴ whereas males were not following the SOPs properly and they were frequently found outdoors without masks. From our research, it was found that the majority of females were washing their hands with soap very quickly and they were not spending 20 seconds on washing hands. The reason may be the excessive workload of females at home during the lockdown period. The females prefer to wash their hands frequently at home during work and because of their less exposure to the outer environment, they wash their hands quickly. As far as the male university students were concerned, their washing hands frequency was smaller but their time spent on washing hands was ideal. We found that most of the male university students preferred to wash their hands with soap for at least 20 seconds. The reason may be due to their realization of being outside for more time than usual. However, the frequency of using hand sanitizer in both male and female university students was similar because of the easy access to sanitizers. Hand sanitizer bottles are usually smaller in shape and size and can be easily stored in pockets, bags, and purses so their use

seemed to be common in both male and female university students during a lockdown in COVID-19 period.

CONCLUSION

We concluded that the University students were less aware of the COVID-19 precautions and preventive measures during a lockdown imposed by the government after the surge in COVID-19 infection cases during 2020-2021 in Pakistan. The university students from the faculty of natural science were more aware of the COVID-19 precautions. The female students were more frequent in washing their hands compared to males but the males were more proper in spending time washing hands. The males and females were equally aware of the use of hand sanitizers. From this research work it is also concluded that there is a need for proper training and awareness campaigns at university levels so that the maximum number of university students should get exact knowledge and awareness about the containment of COVID-19 prior to its launch and spread and also training sessions teach university students about how to deal or behave in a lockdown situation owing to COVID-19.

Author's Contribution:

Concept & Design of Study: Autif Hussain Mangi, Ayaz Ahmed
Drafting: Ghazala Shahzad, autif Hussain
Data Analysis: Autif Hussain Mangi
Revisiting Critically: Ayaz Ahmed
Final Approval of version: Autif Hussain Mangi, Ghazala Shahzad

Conflict of Interest: The study has no conflict of interest to declare by any author.

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