How College Students Experienced the Coronavirus Lockdown: Challenges and Opportunities from a Qualitative Study

Roghayeh Ezati Rad¹, PhD; Teamur Aghamolaei², PhD; Zahra Hosseini³, PhD; Nahid Shahabi⁴, PhD; Atefeh Homayuni⁵, PhD; Hossein Montazer Ghaem², MD

¹Fertility and Infertility Research Center, Hormozgan University of Medical Sciences, Bandar Abbas, Iran ²Cardiovascular Research Center, Hormozgan University of Medical Sciences, Bandar Abbas, Iran ³Tobacco and Health Research Center. Hormozgan University of Medical Sciences, Bandar Abbas, Iran ⁴Social Determinants in Health Promotion Research Center, Hormozgan Health Institute, Hormozgan University of Medical Sciences, Bandar Abbas, Iran ⁵Isfahan University of Medical Sciences, Isfahan, Iran

Correspondence: Zahra Hosseini, PhD; Tobacco and Health Research Center, School of Health, Jomhuri Eslami Boulevard, Postal Code: 79199-15519, Bandar Abbas, Iran Email: hosseinishirin@ymail.com Received: 19 July 2024 Revised: 20 August 2024 Accepted: 14 September 2024

Abstract

Background: Lockdown due to COVID-19changed the educational life of students from traditional to virtual learning; It posed many challenges to students' success and has had psychological and social implications for them. The present study aimed to investigate the students' experiences of living in lockdown during the COVID-19 pandemic. Identifying and obtaining this information can prepare policymakers to better plan for future pandemics.

Methods: In this qualitative study, 20 students from 6 faculties of the University of Medical Sciences were selected by purposeful and snowball sampling method considering the maximum diversity in gender, educational level, school of study, marital status, and age. Data were collected through in-depth individual interviews and data collection continued until saturation. Data were analyzed using the conventional content analysis approach and a continuous comparison method. MAXQDA10 software was used for data management.

Results: The present findings led to the identification of 4 main categories (educational challenges, media impact, multidimensional problems, and coping) and 17 sub-categories. **Conclusion:** According to the results, planning for and resolving the educational challenges, increasing students' media and electronic literacy, identifying and solving students' problems, and encouraging students to use appropriate coping strategies will help overcome this crisis.

Please cite this article as: Ezati Rad R, Aghamolaei T, Hosseini Z, Shahabi N, Homayuni A, Montazer Ghaem H. How College Students Experienced the Coronavirus Lockdown: Challenges and Opportunities from a Qualitative Study. J Health Sci Surveillance Sys. 2024;12(4):461-470.

Keywords: Qualitative research, COVID-19, Lockdown, Students

Introduction

COVID-19 disease is a highly contagious and dangerous respiratory disease that is currently the most important hazard with which humans are faced. The disease affects a large percentage of the world population and has led to a large number of deaths worldwide.¹

Although lockdown is intended to protect people from infectious diseases, it is widely regarded as an unpleasant experience that can lead to a variety of mental problems, including depression, anxiety, fear, loneliness, dissatisfaction, and dizziness.² In 177 countries, schools and universities were closed nationally or locally, affecting approximately 1.27 billion students worldwide (72.4%). These measures have made the pandemic an additional source of stress for students, especially at the university level. University students had to cope with changes resulting from distance learning, limited access to information resources, and distance education. Some were deprived of the opportunity to earn money, while many were forced to return home.³

The COVID-19 pandemic has caused stress, anxiety, depression, unresolved grief, and

Copyright: © Journal of Health Sciences and Surveillance System. This work is licensed under a Creative Commons Attribution 4.0 International License.

post-traumatic stress disorder for all, specifically young people; in some cases, it led to the onset or increase of smoking.⁴⁻⁶

It also increased the students' level of stress and adversely affected their socioeconomic status, family relations, and quality of life.⁷ Some research on students' mental health revealed four common health concerns during the pandemic. The first and most common was depression followed by fear, anxiety, stress, and sleep disorder.⁸

Most of the literature published to date focused on students' experience of e-learning in a particular faculty or field of study. ^{9, 10}Peart et al.¹¹ explored Australian occupational therapy educators' experience of supervising students in the workplace. Plummer et al.¹² and Tajane et al.¹³ examined the experiences of a multinational and Indian physiotherapy faculty, respectively. All three studies highlighted challenges associated with expectations, limitations of online learning media, and the need to adapt to realtime while simultaneously mastering educational technologies.

As mentioned above, it is necessary to explore the effect of quarantine on different aspects of student life to offer effective solutions to deal with their problems. Although researchers have pinpointed some of these factors in a body of research,^{14, 15} some aspects of life in quarantine may remain unknown. Given the social and psychological consequences after the pandemic for students, the knowledge of these factors helps offer solutions to reduce the damage in future pandemics. Therefore, it is necessary to explore their experiences. Gaining insights into medical students' experiences of this situation can help policymakers make informed decisions about educational transformation so that we face fewer educational problems in future pandemics. This research aimed to investigate the quarantine experiences of students in Hormozgan University of Medical Sciences during the COVID-19 pandemic.

Methods

Study Design

This is a qualitative study of the contractual content analysis type for investigating the experiences of living in lockdown among students of Hormozgan University of Medical Sciences.

Participants

The study population included students of Hormozgan University of Medical Sciences. 20 students were selected using purposeful and snowball sampling with maximum diversity in gender, level of education, faculty, marital status, and age after consultation with the students' representative in each faculty to identify interested and information-rich students. Inclusion criteria were lack of hearing and speech problems and ability to speak Persian, lockdown experience and willingness to participate voluntarily. The exclusion criterion was unwillingness to participate in the study. Because, during the interview, we found out that some students used to smoke due to their mental conditions, and it was difficult to identify smoking students, the snowball method was used to identify the smokers.

Data Collection

This study lasted from November 2021 to March 2022. To collect data, we used semi-structured interviews with open questions. The objective of the study was explained at the beginning of the study and the interviewers introduced themselves. Interviews were conducted in a place where participants felt comfortable.

The main question asked was: What problems did you face during the lockdown? What comes to your mind when I use the word lockdown? What is lockdown like? Tell me about living in lockdown. How is life in lockdown? And How does lockdown affect your life and education?" Exploratory questions were used when necessary: "Please explain more about this. What do you mean? Can you give me an example of your feeling so that I can better understand it?" (Table 1)

They were recorded by the AD Sound Recorder. The interviews were listened to in the shortest time possible and were transcribed line by line in Microsoft office word software. The interviews lasted between 24 to 62 minutes.

Data Analysis

Graneheim and Lundman content analysis method was used to analyze the data.^{14, 15} First, the recorded interviews were analyzed using the MAXQDA software. The transcriptions were read several times, and the semantic units and primary codes were determined. Similar codes were classified into more general categories. The underlying contents were derived from the data.

Rigor

Guba & Lincoln's proposed criteria were used to increase the trustworthiness of the results.¹⁶ To ensure credibility, researchers were involved in the study process and dealt with qualitative data for a relatively long time. Attempts were made to have participants review the codes, subcategories, and data analysis impressions so that their opinions could be used. To increase the dependability of the data, purposeful sampling with maximum diversity and expert opinions were used. Also, to increase the confirmability, we used expert opinions of the professors in qualitative research, and the documents were utilized throughout the study.

Opening questions	Probing questions
What problems did you face during the lockdown? What comes to your mind when I use the word lockdown? What is lockdown like? Tell me about living with lockdown. How is life in lockdown? How does lockdown affect your life and education?	 How was your interaction with your teachers and classmates? How did you deal with problems? What educational challenges did you experience during this time? How do you spend your leisure time? What did you experience in terms of social activities? Tell me about your emotions during lockdown. What experience do you have in taking exams? What opportunities did you get during this time? What problems did you have?

 Table 2: Demographic variables of participating students

Variable		Number (percentage)	
Age group	20-24	12 (60)	
	25-29	5 (25)	
	$30 \leq$	3 (15)	
Gender	Female	11 (55)	
	Male	9 (45)	
University faculties	Public Health	4 (20)	
	Nursing	3(15)	
	Paramedical	3(15)	
	Medical	4(20)	
	Dentistry	3(15)	
	Pharmacy	3(15)	
Educational degree	Undergraduate	5 (25)	
	Masters	3 (15)	
	Professional Doctorate	10 (50)	
	PhD	2 (10)	

To increase transferability, researchers sought to provide a comprehensive description of the study process and its analysis process.

Ethical Consideration

This study was approved by the ethics committee of Hormozgan University of Medical Sciences with the code of IR.HUMS.REC.1399.440. Informed consent was obtained by telephone calls and in written form. Due to the prevalence of coronavirus and the lack of access to many students, interviews were conducted by telephone; for individuals who had no problem with face-to-face interviews, they were conducted following health protocols. The time and place of the interviews were coordinated with the participants.

Results

Of the twenty students who participated in this study, two were smokers. The mean age of the participants was 25.6 years. The demographic variables are listed in Table 2.

Four main categories and 17 sub-categories were extracted. The main categories included educational challenges, media influences, multidimensional problems caused by Corona, and coping. The subcategories are listed in Table 3.

1- Educational Challenges

Higher education systems, as the most prominent

manifestation of manpower investment, play a key role in the training and supply of efficient manpower. One of the most important concerns and experiences of the participants was the educational challenges. Students' access to quality educational facilities and good education is one of the most basic rights of students who faced many challenges in this period.

Lack of Access to Educational Facilitators

"Lack of access to educational facilitators" was one of the sub-categories of educational challenges extracted from the data. Items such as lack of access to professors and required resources, lack of access to other students, and lack of access to uploaded course files were among the facilitators.

"I do not know what stage my friends are going through their dissertation. For example, when I get stuck somewhere down the road, I don't have access to my friends to ask my questions." (P2)

"Some sites are not available because some of the references that could be used with the university IP cannot be used now and it has become very problematic for us." (P8)

Reduce Social Interactions

The university world is a world of interactions, and communication and interaction give the students an identity. According to all participants, interactions have reached a minimum level during this period.

Main categories	Subcategories	
Educational challenges	Lack of access to educational facilitators	
	Reduce social interactions	
	Inadequate educational infrastructure	
	Poor quality of teaching	
	Evaluation methods	
Media influences	Emotional News	
	Trusted media	
	Knowledge-based media	
Multidimensional problems	Reduced social activities	
	Physical problems	
	Smoking	
	Mental pressure	
	Financial problems	
	Dormitory problems	
Coping	Entertainment	
	Take advantage of opportunities	
	Problem-solving skills	

 Table 3: Experiences of students of Hormozgan University of Medical Sciences in living in lockdown during the COVID-19 pandemic

Lack of communication with classmates and new entrants were some of the experiences described by the participants.

"My interaction with my mates has become much weaker than before. Now, we could only send text messages. I do not have any special interaction with the professors. I may see one of my professors only because of my dissertation. We don't have the required interaction, unfortunately." (P 20)

"I'm not in the mood to chat with my friends at all. My social interactions have dumped this year." (P18)

Inadequate Educational Infrastructure

One of the necessary conditions for optimal education is the provision of the necessary facilities for communication and networks for the development of virtual education. The educational limitations experienced by the students were inadequate equipment, hardware, and software infrastructure, including what students described as an unappealing platform, inadequate system, difficulty in downloading assignments, network problems, lack of permanent access to Navid system, problems connecting to the online classroom.

"The students have been working with the software for a year; it has become boring for him. The software itself cannot be customized, i.e. in terms of appearance, even the position of the images, texts of the slides, or color." (P 12)

"The file-uploading-system was completely broken for a while, that is, we had an exam, but we did not have access to the files, and it was distressing in this respect" (P 18).

Unsatisfactory Educational Quality

One of the main duties of professors is teaching

the students, the quality of which has a great effect on promoting motivation, vitality, innovation, and increasing student efficiency. Poor teaching quality causes a waste of human and monetary capital and the inability to compete in the future world.

"None of the classes was held online. We were offline throughout. The professor uploaded a lesson. We later went on the site to get it. We were not given a specific homework to do." (P 2)

"The professor did not teach anything at all. We had to ask the professor over and over to upload a file for us so that we could be ready for the exam." (p 13)

Evaluation Method

Evaluation was another sub-category of educational challenges that was extracted from the data. Most of the participants were dissatisfied with their experience of the exams and evaluation methods. Among the problems that were pointed out, lack of understanding the students' conditions by the officials during exams and the related problems, network problems, dissatisfaction with the type of exam, difficulty uploading exam sheets, the impossibility of proper evaluation of practical courses, and decreased score due to platform problems.

"In terms of uploading the exam sheet in the system, I always wondered whether the image I sent was actually sent. That is, I was so stressed that those five minutes lasted ten years for me." (P 9) Also, as to the problems of the examination system: "I checked all choices in one of the exams; there is no reason not to check all of the questions, but the system was telling me that I had missed two questions. Clearly, there was a problem in the system." (P 13)

2- Media Influence

Students had different experiences of various

media used to acquire information.

Emotional News

The "Emotional News " was a subcategory of the media influence extracted from the data. To attract public attention, increase followers on social media, and sell the product more, the producers of emotional content resort to controversial news and transient and emotive subjects, which is known as emotional media. They try to attract more audiences using popular methods, without worrying about information correctness, public interests, balance and neutrality, and its social and moral benefits and harms.

Many participants commented on their experiences using emotional media. They stated that they preferred to receive news and information from the emotional media, such as Twitter, Instagram, Telegram, and WhatsApp.

"Some of these media outlets published news and information with such excitement and fascination that we had no choice but to go toward them and believe them." (P6)

"Social networks published all sorts of things, both right and wrong. we had to trust them because we were using this cyberspace and that's where we got our information." (P8)

Trusted Media

The "trusted media" was another subcategory of media influence extracted from the data. Trusted media are those that students had confidence in their published content. Many of them stated that they trusted some of the media outlets they used.

"I followed the Instagram page of the reputable people who were faculty members in connection with the Corona virus." (P 14)

"I follow more reputable sites; for example, one of them is the website of the Ministry of Health." (P12)

Knowledge-based Media

The "knowledge-based media" was another subcategory of media influences that was extracted from the data. Knowledge-based media are those whose information and content are based on scientific research and reputable sources, such as the WHO website, website of the Ministry of Health, website of the University of Medical Sciences, scientific articles, professors' pages.

"I prefer to read about COVID-19 from the WHO website. I also used this site to read about the protocols because they had the highest validity". (P 3)

"I got the basic information about the Coronavirus from our books."(P 18)

3- Multidimensional Problems

The third major theme extracted from students' experiences during this period was "multidimensional problems". Corona outbreak is one of the phenomena of the third millennium that affects different aspects of students' lives, and its negative effects can be seen in different areas.

Reduced Social Activities

Participants experienced different social concerns. "The first difficulty for the students was to stay away from the dynamic atmosphere of the university. We used to participate in various face-to-face activities. We had various group activities, but this was no longer an opportunity for us because of Corona." (P4)

"For example, I liked to go to the beach or shopping two or three times a week. After all, we were trying to have a pastime for ourselves, or even going to a restaurant was a pleasure for us, and we lost all that." (P1)

Physical Problems

The "physical problems" was another subcategory derived from the theme of multidimensional problems, which includes the physical ailments perceived by students during this period. The physical problems that the students had due to the lockdown included overweight, fatigue, weakness and lethargy, respiratory problems, dental problems, vomiting, nausea, and premature satiety.

"I remember I was at home for about forty days. Around the thirtieth day, I remember that I couldn't eat more than four tablespoons of food; I had premature satiety. I felt nauseous. I often could not digest the food and vomited. The truth is that I was like this for a week. I asked many of my friends; they had this as well." (P14)

"I do not go to the dentist for the fear of Coronavirus. My teeth are painful as hell; I have tooth decay and dental plaque, and I don't go to the dentist." (P16)

Smoking

"Smoking" was another subcategory derived from the theme of multidimensional problems. Smoking is a known risk factor for many respiratory infections which increases the severity of respiratory illnesses. Instead of dealing with anxiety, smokers turn to nicotine to be psychologically isolated from the stressful environment, while nicotine dependence exacerbates stress.

"I was very stressed because I have asthma, and I smoke. Smoking is a risk factor. I wanted to smoke less, but I couldn't because it reduced my stress." (P 17)

"I used to smoke very rarely, but since the

coronavirus outbreak, unfortunately, it has increased. When I smoke, my stress is reduced." (P19)

Mental Pressure

One of the most stressful experiences of the participants was fear. Fear is an unpleasant yet natural emotion in response to real dangers. Fear of transmitting the disease to others, fear of losing loved ones, fear of getting physically close to others, fear of death, and fear of illness were all experienced by students.

"We were under a lot of stress during this period. We were afraid of everything, most of all we were afraid of getting the Coronavirus or transmitting it to our family." (P 10)

"Because I had to go home, I experienced a state of depression and could not find anything to do. I was even out of mood for studying." (P 13)

Economic Problems

The coronavirus affected economic and business conditions and contributed to problems such as high prices, high Internet usage, food shortages, and lack of masks and essentials.

"It affected me a lot economically. In terms of basic commodities, everything is getting more expensive day by day, for example, how much is an egg or chicken now? In general, it affected my work and income a lot." (P4)

"Since the Corona outbreak, people have been under a lot of financial pressure. From the beginning of Corona outbreak until this year, every time I planned and decided to purchase something, a thousand different problems arose; that is, it was completely unimaginable. We thought it would get better, but now it only got worse."(P 17)

Problems of Dormitory Accommodation

Due to the high prevalence of the virus in gatherings and fear of infection, students were always faced with this problem. Among the problems the students experienced during this period were the high number of students in a dormitory room, fear of transmitting the disease to roommates, closure of the dormitory café, and lack of group games.

"At first, I was very stressed when we were told to come to the dormitory, but they said that there were a few students in each room and there was no danger. However, when we arrived, it was not like that. There were more than a few students in each room, and we were stressed every day," said one female student. (P 15)

"Because we were in contact with Corona patients in the hospital every day, we all had the worry and stress of being a carrier and transmitting the disease to our roommates," said one male student who lived in the dormitory (P19).

4- Coping

Coping is a psychological process according to which a person confronts or controls the tendencies and challenges of daily life.¹⁷ All students shared their experiences with strategies for coping with the conditions.

Entertainment

Students used the entertainment strategy to cope with these conditions. Their hobbies included reading about COVID-19, drawing, producing content, learninglanguage, doing exercise, working, using social networks, listening to music, searching scientific websites, cooking, studying, reading books, talking to each other, watching movies, teaching the English language, singing, playing piano, guitar, and doing computer games.

"The best thing one can do for oneself is to keep one's morals high. I entertain myself with energetic music and the work of art that I was interested in, i.e. photography." (P 6)

"I installed a lot of different apps on my phone, especially for language learning, to entertain myself with them." (P 10)

Taking Advantage of Opportunities

Although the outbreak of Corona has caused great harm to the student community in various dimensions, in some cases it has created opportunities.

"I was able to improve my skills in these conditions. I participated in workshops in other cities. Meanwhile, before the lockdown, all these workshops were held in a face-to-face manner; now we can participate in workshops in cities such as Yasuj, Birjand, Tehran, and Mashhad to enhance our knowledge and skills." (P6)

"The best opportunity I faced was starting an Internet business although I'm still learning about it." (P 7)

Problem-solving Skills

Problem-solving skills are defined as active perspective in searching and identifying problems using logic and skills in gathering and analyzing information, searching and creating solutions, comparing different solutions, and choosing the best way to deal with a problem.¹⁸

"This situation made me develop a series of my skills to improve my problem-solving skills because I almost had to solve my problems myself, and the fact that I was just at the beginning of the road somehow made me more skillful. In some classes, we had problems; for example, many students had problems working with computers, systems and networks, but due to the online classes and Corona conditions, they were forced to accept this change and improve themselves in this regard." (P8)

"I was a little different from the others. An opportunity arose during this period so that I could experience several other aspects of my life aside from studying. I was able to strengthen the skills in myself to accept the problems that arose and seek to solve them in the best way possible, i.e. the same problemsolving skills."(P17)

Discussion

Using conventional content analysis approach, this qualitative study examined the experiences of students of Hormozgan University of Medical Sciences during the COVID-19 lockdown period in Bandar Abbas city. The four main categories extracted from student experiences included educational challenges, media experiences, multidimensional problems due to corona, and coping.

Educational challenges were one of the most important experiences of the participants during the Corona pandemic. Lack of access to educational facilitators, reduced social interactions with other students, inadequate educational infrastructure, and poor education and evaluation quality were the educational challenges. This sudden shift in teaching and learning from face-to-face to online classes posed many challenges for students. Many of the problems students reported, such as lack of access to technology, problems working with the Internet, and system issues, were consistent with other studies. Some studies show that these challenges are largely related to the unavailability of resources, technical glitches, privacy issues, and specialized manpower.^{19, 20}

Not all students have the same level of technical and Internet facilities. Hence, the rate of success in education is questionable.²¹ This is not just a shortterm condition but can have long-term consequences for students with less access and may increase inequality.²²

Students spoke about their experiences of being influenced by the media. They reported that when they received news of the virus outbreak and mortality rate from the emotional media, they experienced stress and fear, which is consistent with other studies.²³

COVID-19 is the first pandemic in the age of social media. However, research suggests that social media and shocking reports of the outbreak may cause panic and mistrust in the general public, as has been reported in other epidemics.^{24, 25} Timely and accurate information is essential for the prevention

and treatment of coronavirus both for the general public and for the scientific community.²⁶ Currently, a lot of information has been published in the media, especially on social networks, about the prevention and treatment of COVID-19. This information may sometimes be inaccurate and lack a sound scientific basis,^{27, 28} so the use of knowledge-based media is important in pandemic control. E-health literacy skills are a prerequisite for achieving accurate and quality information about healthcare in the information explosion of the digital age.²⁹

On the other hand, social media has become a useful tool for people to communicate with friends and family during lockdown to minimize the negative effects of isolation associated with anxiety, stress, and fear.³⁰ Some students admitted that they had tried to avoid emotional news and its obsessive scrutiny.³¹ Decreased social activity, physical problems, smoking, stress, financial problems, and dormitory issues were some of the problems experienced by the participants.

One of the main problems for students was the decrease in social activities. When participants found themselves in lockdown, their relationships with others changed at different levels. Social isolation and limited daily activities exacerbated frustration and boredom.¹⁹

Stress was one of the problems that all students experienced. Problems that arose included anxiety, depressive symptoms, anxiety, loneliness and fear, which were consistent with other studies that investigated the stress level during lockdown.³¹⁻³⁵ Negative interaction with parents, fear of one's and family's health, low self-efficacy, and unemployment are associated with mental health of lockdown students.³⁶ The youth, who are usually more socially active, are more prone to the negative psychological experience of social distancing and lockdown measures.³¹

Another experience reported by the students due to the unexpected change in the living environment was the feeling of insecurity and anxiety about the future, which was consistent with other studies.³⁷ Factors such as lower physical activity, longer use of electronic devices, irregular sleep pattern and poor diet, stress, fear of illness, monotony, frustration, and lack of face-to-face contact with classmates, friends and professors have had devastating effects on students' mental health.³⁸ The results of the Hinderaker's study showed that counseling sessions helped students to reduce their anxiety and fear as well as stress.³⁹ Holding online counseling sessions for students can create a favorable atmosphere for them.⁴⁰

This study showed that lockdown provided a good opportunity to spend time with family. Watching movies, sleeping, cooking, and playing online games were the activities that students performed during lockdown, which were consistent with other studies.²⁰ The results of a study showed that during the lockdown period, some students were engaged in hobbies such as drawing, gardening, reading novels, and others were engaged in learning handicrafts and cooking in online classes.⁴¹

Under normal circumstances, students were in constant contact with professors, colleagues, and friends, which were all called off during lockdown. To cope with this situation, students used apps to communicate with friends and acquaintances in audiovisual manners. These apps have acted as a savior and a powerful tool to combat loneliness. Before lockdown, one of the best pastimes for many students was regular exercise, and the closure of gyms did not prevent this pleasure. Some students had exercise programs such as walking, simple yoga, and aerobics at home. They believed that engaging in these activities would help them overcome stress and anxiety. According to the participants, spending time with parents strengthened their relationship. Other studies showed that students considered this period as an opportunity to make life more meaningful and productive by participating in social services, helping parents with their work, and helping mothers with their daily chores.19

Conclusion

Based on the concepts extracted from the data, planning to reduce the educational problems, raising students' media- and e-literacy, identifying the students' problems and planning to address them, and encouraging students to use appropriate coping strategies help them to be less harmed in future crises. Due to the time of this specific study, participants were highly motivated and found it useful to participate in the study. They wanted to be heard and to share their experiences.

Recommendation

We recommend that more research should be done in the future regarding the problems that have various educational, social, and psychological aspects of students during the COVID-19 pandemic and its effects in the present time. Another suggestion of our study is to focus more on educational components and provide educational programs to solve the problems in the postcorona period.

Acknowledgement

The authors thank the participants for sharing their experiences.

Conflict of Interest: None declared.

References

- Khot WY, Nadkar MY. The 2019 Novel Coronavirus Outbreak - A Global Threat. The Journal of the Association of Physicians of India. 2020;68(3):67-71. PMID: 32138488.
- 2 Greyling T, Rossouw S, Adhikari T. Happiness-lost: Did Governments make the right decisions to combat Covid-19? GLO Discussion Paper; 2020.
- 3 Tumwesige J. COVID-19 Educational Disruption and Response: Rethinking e-Learning in Uganda. University of Cambridge. 2020.
- 4 Xiao C. A Novel Approach of Consultation on 2019 Novel Coronavirus (COVID-19)-Related Psychological and Mental Problems: Structured Letter Therapy. Psychiatry Investig [Internet]. 2020 Feb 25 [cited 2020 Apr 12]; 17 (2): 175–6. 2020. PMID: 32093461. PMCID: PMC7047000. doi: 10.30773/pi.2020.0047.
- 5 Stanton R, To QG, Khalesi S, Williams SL, Alley SJ, Thwaite TL, et al. Depression, anxiety and stress during COVID-19: associations with changes in physical activity, sleep, tobacco and alcohol use in Australian adults. International journal of environmental research and public health. 2020;17(11):4065. PMID: 32517294. PMCID: PMC7312903. doi: 10.3390/ijerph17114065.
- 6 Hopkins DB, Al-Hamdani M. Young Canadian e-cigarette users and the COVID-19 pandemic: examining vaping behaviors by pandemic onset and gender. Frontiers in Public Health. 2021;8:1083. PMCID: PMC7874134. PMID: 33585389. doi: 10.3389/ fpubh.2020.620748.
- 7 Gallego-Gómez JI, Campillo-Cano M, Carrión-Martínez A, Balanza S, Rodríguez-González-Moro MT, Simonelli-Muñoz AJ, et al. The COVID-19 pandemic and its impact on homebound nursing students. International Journal of Environmental Research and Public Health. 2020;17(20):7383. PMCID: PMC7600682. PMID: 33050435. doi: 10.3390/ ijerph17207383.
- 8 Cygan H, Bejster M, Tribbia C, Vondracek H. Impact of COVID-19 on public health nursing student learning outcomes. Public Health Nursing. 2022;39(2):481-7. PMID: 34614222. PMCID: PMC8662227. doi: 10.1111/ phn.12978.
- 9 Chidzonga MM, Haruzivishe C, Chikwasha V, Rukweza J. Health professions faculty's perceptions of online teaching and learning during the COVID-19 pandemic. PloS one. 2022;17(11): e0276170. MID: 36395167. PMCID: PMC9671340. doi: 10.1371/ journal.pone.0276170.
- 10 Ng L, Seow KC, MacDonald L, Correia C, Reubenson A, Gardner P, et al. eLearning in Physical Therapy: Lessons Learned from Transitioning a Professional Education Program to Full eLearning During the COVID-19 Pandemic. Phys Ther. 2021;101(4). PMID: 33751113. PMCID: PMC7989157. doi: 10.1093/ptj/pzab082.
- 11 Peart A, Wells N, Yu ML, Brown T. 'It became

quite a complex dynamic': The experiences of occupational therapy practice educators' move to digital platforms during the COVID-19 pandemic. Aust Occup Ther J. 2022;69(1):38-49. PMID: 34490904. PMCID: PMC8652557. doi: 10.1111/1440-1630.12767.

- 12 Plummer L, Belgen Kaygısız B, Pessoa Kuehner C, Gore S, Mercuro R, Chatiwala N, et al. Teaching online during the COVID-19 pandemic: a phenomenological study of physical therapist faculty in Brazil, Cyprus, and The United States. Education Sciences. 2021;11(3):130. doi: 10.3390/educsci11030130.
- Tajane I. Online Learning What Lessons do We Take to Guide the Future of Physiotherapy Education? A Cross-Sectional Survey from Teachers' Perspectives. J Health Commun. 2021;6(10). doi: 10.13140/ RG.2.2.16304.28165.
- 14 Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse education today. 2004;24(2):105-12. PMID: 14769454. doi: 10.1016/j.nedt.2003.10.001.
- 15 Thyme KE, Wiberg B, Lundman B, Graneheim UH. Qualitative content analysis in art psychotherapy research: Concepts, procedures, and measures to reveal the latent meaning in pictures and the words attached to the pictures. The Arts in Psychotherapy. 2013;40(1):101-7. doi: 10.1016/j.aip.2012.11.007.
- 16 Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: Advancing the humanistic imperative: Lippincott Williams & Wilkins; 2011.
- 17 Compas BE, Jaser SS, Bettis AH, Watson KH, Gruhn MA, Dunbar JP, et al. Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. Psychol Bull. 2017;143(9):939-91. Compas BE, Jaser SS, Bettis AH, Watson KH, Gruhn MA, Dunbar JP, et al. Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. Psychol Bull. 2017;143(9):939-91 .PMID: 28616996. PMCID: PMC7310319. doi: 10.1037/ bul0000110.
- 18 Bartley JE, Boeving ER, Riedel MC, Bottenhorn KL, Salo T, Eickhoff SB, et al. Meta-analytic evidence for a core problem solving network across multiple representational domains. Neurosci Biobehav Rev. 2018;92:318-37. doi: 10.1016/j.neubiorev.2018.06.009. PMCID: PMC6425494. PMID: 29944961.
- 19 George G, Thomas MR. Quarantined effects and strategies of college students-COVID-19. Asian Education and Development Studies. 2020. doi:10.1108/ AEDS-04-2020-0054.
- 20 Khattar A, Jain PR, Quadri S, editors. Effects of the disastrous pandemic COVID 19 on learning styles, activities and mental health of young Indian students-a machine learning approach. 2020 4th International Conference on Intelligent Computing and Control Systems (ICICCS); 2020: IEEE. doi: 10.1109/ ICICCS48265.2020.9120955.

- 21 Oreopoulos P, Von Wachter T, Heisz A. The short-and long-term career effects of graduating in a recession. American Economic Journal: Applied Economics. 2012;4(1):1-29. doi: 10.1257/app.4.1.1.
- 22 Burgess S, Sievertsen HH. Schools, skills, and learning: The impact of COVID-19 on education. 2020.
- 23 Missel M, Bernild C, Christensen SW, Dagyaran I, Berg SK. It's not just a virus! Lived experiences of people diagnosed with COVID-19 infection in Denmark. Qualitative health research. 2021;31(5):822-34. PMID: 33554742. doi: 10.1177/1049732321990360.
- Dubey S, Biswas P, Ghosh R, Chatterjee S, Dubey MJ, Chatterjee S, et al. Psychosocial impact of COVID-19. Diabetes Metab Syndr. 2020; 14(5):779-788. doi: 10.1016/j.dsx.2020.05.035. PMID: 32526627; PMCID: PMC7255207.
- 25 Glowacki EM, Taylor MA. Health hyperbolism: a study in health crisis rhetoric. Qualitative health research. 2020;30(12):1953-64. PMID: 32449475. doi: 10.1177/1049732320916466.
- 26 Hua J, Shaw R. Corona virus (Covid-19)"infodemic" and emerging issues through a data lens: The case of china. International journal of environmental research and public health. 2020;17(7):2309. PMID: 32235433. PMCID: PMC7177854. doi: 10.3390/ijerph17072309.
- 27 Bastani P, Bahrami MA. COVID-19 Related Misinformation on Social Media: A Qualitative Study from Iran. Journal of medical Internet research. 2020. PMID: 32250961. doi: 10.2196/18932.
- 28 Hernández-García I, Giménez-Júlvez T. Assessment of health information about COVID-19 prevention on the internet: infodemiological study. JMIR public health and surveillance. 2020;6(2): e18717. PMID: 32217507. PMCID: PMC7117090. doi: 10.2196/18717.
- 29 Dastani M. E-Health Literacy: A Skill Needed in the Coronavirus Outbreak Crisis. Health Technology Assessment in Action. 2020;4(1). doi: 10.18502/htaa. v4i1.5861.
- 30 González-Padilla DA, Tortolero-Blanco L. Social media influence in the COVID-19 pandemic. International braz j urol. 2020;46:120-4. PMID: 32550706. PMCID: PMC7719982. doi: 10.1590/S1677-5538. IBJU.2020.S121.
- 31 Kamin T, Perger N, Debevec L, Tivadar B. Alone in a Time of Pandemic: Solo-Living Women Coping With Physical Isolation. Qualitative health research. 2021;31(2):203-17. PMID: 33213283. doi: 10.1177/1049732320971603.
- 32 Blendon RJ, Benson JM, DesRoches CM, Raleigh E, Taylor-Clark K. The public's response to severe acute respiratory syndrome in Toronto and the United States. Clinical infectious diseases. 2004;38(7):925-31. PMID: 15034821. doi: 10.1086/382355.
- 33 Cava MA, Fay KE, Beanlands HJ, McCay EA, Wignall R. The experience of quarantine for individuals affected by SARS in Toronto. Public

Health Nursing. 2005;22(5):398-406. PMID: 16229732. doi: 10.1111/j.0737-1209.2005.220504.x.

- 34 Mandelli L, Serretti A, Colombo C, Florita M, Santoro A, Rossini D, et al. Improvement of cognitive functioning in mood disorder patients with depressive symptomatic recovery during treatment: an exploratory analysis. Psychiatry Clin Neurosci. 2006; 60(5):598-604. doi: 10.1111/j.1440-1819.2006.01564.x. PMID: 16958944.
- 35 Reynolds DL, Garay J, Deamond S, Moran MK, Gold W, Styra R. Understanding, compliance and psychological impact of the SARS quarantine experience. Epidemiology & Infection. 2008;136(7):997-1007. PMID: 17662167. PMCID: PMC2870884. doi: 10.1017/ S0950268807009156.
- 36 Hall SS, Zygmunt E. "I Hate It Here": Mental Health Changes of College Students Living With Parents During the COVID-19 Quarantine. Emerging Adulthood. 2021:21676968211000494. doi: 10.1177/21676968211000494.
- 37 Ren S-Y, Gao R-D, Chen Y-L. Fear can be more harmful than the severe acute respiratory syndrome

coronavirus 2 in controlling the corona virus disease 2019 epidemic. World journal of clinical cases. 2020;8(4):652. doi: 10.12998/wjcc.v8.i4.652. PMCID: PMC7052559. PMID: 32149049.

- 38 Wang G, Zhang Y, Zhao J, Zhang J, Jiang F. Mitigate the effects of home confinement on children during the COVID-19 outbreak. Lancet. 2020;395(10228):945-947. doi: 10.1016/S0140-6736(20)30547-X. PMID: 32145186; PMCID: PMC7124694.
- 39 Hinderaker DJ. College student mental health and use of counseling center services. 2013.
- 40 Satpathy B, Ali E. A study on psychological wellbeing of final year management students during COVID-19 pandemic lockdown in India. International Journal of Indian Psychology. 2020;8(2):1-25. doi: 10.25215/0802.201.
- 41 Devi S. Psychological resilience and coping strategies during Covid-19 pandemic lockdown. Journal of Xi'an University of Architecture and Technology. 2020;12(4):2925-33. doi: 10.1016/j. psychres.2020.113216.