

The lived experience of medical students during COVID-19 pandemic: the impact on lifestyle and mental wellbeing

The lived
experience of
medical
students

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Abstract

Purpose – The paper intends to explore the lived experiences of medical students during the COVID-19 pandemic and its impact on their lifestyles and mental wellbeing.

Design/methodology/approach – Fourteen medical students from the College of Medicine and Medical Sciences, Arabian Gulf University, Bahrain, were enrolled, and their narratives were obtained. Data were analyzed and conducted using Colaizzi's phenomenological descriptive method of enquiry.

Findings – The analysis identified two themes, along with nine subthemes, that were generated. The first theme focused on mental and social experiences, while the second focused on lifestyle changes. During the pandemic, students had time to reflect on themselves and started to think positively about their lives, although they felt fearful, uncertain, stressed and anxious due to preventive control measures that were mandated, including social distancing and lockdowns. Participants' lifestyles changed generally negatively, as they adapted to the preventive measures, rendering them physically inactive and exposing them to unhealthy food and disturbed sleep.

Originality/value – The findings provide an insight into the negative impact of the COVID-19 pandemic on the lifestyle and mental wellbeing of medical students. Educational institutes need to offer their students both short as well as long-term health, social and mental support to overcome the impact of the pandemic on their lives.

Keywords Wellbeing, Lifestyle, Qualitative, Social, Mental, COVID-19

Paper type Research paper

Introduction

During the COVID-19 pandemic, the closure of educational institutions along with physical distancing mandates forced educational institutions to transform education from face-to-face into virtual learning. Students received education online, disengaging them from campus life. This may have a negative impact on students' lifestyles and expose them to a wide range of challenges and negative health outcomes (Atwa *et al.*, 2021; Stockwell *et al.*, 2021). People's routine lives have been disrupted by COVID-19 pandemic-related lockdowns, affecting their daily activities. For instance, studies have reported an increase in sedentary behavior and exposure to other unhealthy lifestyle factors (Alfawaz *et al.*, 2021).

It is generally believed that the health status of students is negatively affected by the stresses of academic life. These stressors are known to subsequently affect their learning abilities, academic performance and health (Pascoe, Hetrick, & Parker, 2020).



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Moreover, university students are at an increased risk of adverse mental health outcomes during the COVID-19 pandemic because of interventions requiring people to follow closures, lockdowns and social distancing (Mekonen, Workneh, Ali, & Mulneh, 2021; Salman *et al.*, 2020). Studies on students in the health fields from the Arab Gulf region (Abdul-E-mail, Alarbash-E-mail, Albati-E-mail, Alkhalifa-E-mail, & Alkhalifa-E-mail, 2022; Mosleh, Shudifat, Dalky, Almalik, & Alnajar, 2022) as well as from western countries (Alkureishi *et al.*, 2022; Sekulic *et al.*, 2022) have indicated that the COVID-19 pandemic lockdown has had both short and long terms impacts on the social and health wellbeing of the students. It is therefore important to understand how the university students' lives may have been changed during the current COVID-19 pandemic and what coping mechanisms they have used to adapt to potential challenges.

The Arabian Gulf University (AGU) is a regional university established in 1980 and based in the Kingdom of Bahrain. AGU hosts students of both genders from Gulf Cooperation Council (GCC) countries (Bahrain, Saudi Arabia, Kuwait, Oman, UAE and Qatar). Since its inception, the College of Medicine and Medical Sciences (CMMS) has followed a problem-based learning (PBL) curriculum as a method of education (Hamdy & Anderson, 2006). In response to the COVID-19 pandemic, the education at AGU was shifted to an online format in February 2020 and has continued since then to deliver teaching mostly in the online format. However, the college is gradually including some face-to-face teaching on campus.

The nature of the small group learning process necessitates that in PBL, medical students in contrary to traditional education are not taught in large classes but in small groups of around 6 to 10 students with direct interaction within the group as one of the main strengths of this strategy (Yew & Goh, 2016). This interaction within small groups is associated with stronger social links between students (Laal & Ghodsi, 2012). Therefore, it would not be surprising that the change from face-to-face education to virtual would have had a much more long-lasting effect on the wellbeing and mental health of problem-based medical students (Bailenson *et al.*, 2008; Nurhas, Aditya, Jacob, & Pawlowski, 2021).

This qualitative study explores the lived experience of PBL medical students during the COVID-19 pandemic and its impact on their lifestyle and mental wellbeing because of the pandemic's mandated closures, lockdowns, social distancing and distance learning, as well as identifies the changes in students' behavior. While many published studies from different parts of the globe have attempted to explore such issues among students attending traditional institutions, this study to the best of our knowledge, is the first documented analysis of the impact of the COVID-19 pandemic on students learning in small groups (PBL).

Methods

Colaizzi's phenomenological descriptive method of enquiry (Colaizzi, 1978) was employed in this study.

Study sample

The students who were sought to be recruited for this study were those who may have experienced lifestyle and educational modifications during the period when the education in AGU was shifted to an online format. Subsequently, students enrolled in the study sample were from medical years three and four. The snowball sampling method was used until data saturation was achieved with a total of 14 medical student participants (Table 1). The snowball technique was considered appropriate since it enabled us to identify a homogenous group of participants who could share their lived experiences.

Data collection

Data were collected from January 2022 to February 2022. Participants were contacted and asked to sign the consent. They were assured that their confidentiality and anonymity would

		Participants (<i>n</i> = 14)	The lived experience of medical students
Gender	Male	9	
	Female	5	
Age (year)	19	1	
	20	1	
	21	9	
	22	1	
	23	2	
Nationality	Bahrain	8	
	Kuwait	3	
	Saudi Arabia	3	
Medical year	Year 3	10	
	Year 4	4	
Marital status	Single	14	
Accommodation status	Living with family	8	
	Living with friends	1	
	At university hostels	3	
	Living alone	2	

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Table 1.
Demographic characteristics of the participants

be secured and that they could leave the study at any time they wished. The data were collected online in English (the medium of education in CMMS). The participants filled in a demographic information sheet at the start of the process and then answered the opening statement: "Please describe to me your lifestyle changes during the COVID-19 pandemic. Share all your thoughts, feelings, and perceptions you can recall until you have no more to say about the experience". Participants were requested to write down the narratives of their experiences and submit them back to the research team.

Data analysis

The study used Colaizzi's (1978) method of data analysis, which consists of the following steps: (1) Read all the participants' descriptions of the phenomenon under study, (2) extract significant statements that relate directly to the phenomenon, (3) formulate meanings for these significant statements, (4) combine the formulated meanings into clusters of themes, (5) integrate the findings into an exhaustive description of the phenomenon being studied, (6) validate the exhaustive description by returning to some of the participants to ask them how it compares with their experiences and (7) incorporate any changes offered by the participants into the final description of the essence of the phenomenon.

Ethical considerations of the study

This study was approved by the Research and Ethics Committee of CMMS, at AGU (approval number: E41-PI-1-22).

Results

Responses from the participants were analyzed and generated two main themes with nine subthemes after two researchers independently coded the data and explored patterns within the data. Discrepancies (very minor) were solved by discussions in order to reach a consensus among the two researchers. The first theme focused on the experience of mental and social wellbeing, while the second focused on the experience of lifestyle changes (Table 2).

Theme 1: mental and social experiences

Subtheme 1: students had time to reflect on themselves. During closure and lockdown, there was a lot of time for students to start thinking positively about what they already had in their lives. Students said that the pandemic allowed them to reflect and look at the world from a different perspective and trained them to work cooperatively with their peers when they felt they were under pressure, helping them to improve themselves.

- (1) “The covid-19 experience was very positive for me” (Male, Year 3 student)
- (2) “All the lockdown and preventive measures made me know and think about myself more. Even life, people, the world, and other things; I re-evaluated everything. I was pleased with so many things that I took for granted and realized that after.” (Male, Year 3 student)
- (3) “It sure made me grow as a person, as we tended to spend much more time with ourselves and families” (Female, Year 4 student)
- (4) “It has surely opened our eyes diversely in various areas as it helped us corporate and work under any circumstances” (Female, Year 4 student)
- (5) “It made us appreciate the little things in life” (Female, Year 4 student)

Subtheme 2: students felt fearful and uncertain. The pandemic created mixed feelings of fear and uncertainty among students due to the continuously evolving news about the pandemic, to the extent that they were unable to attain their regular activities and productivity. They often felt distracted, overwhelmed and unable to follow up with all the news updates. Students felt worried about their own health and the people in their inner circle, trying to take all the precautions.

- (1) “Honestly it was a roller coaster initially” (Male, Year 3 student)
- (2) “I remember when it started, we were all afraid, and we didn’t know what to do”. (Male, Year 3 student)
- (3) “Even though I wanted to be as productive as I can. I just couldn’t” (Male, Year 3 student)
- (4) “I am concerned about my health and everyone around me, and I try to take all the necessary measures to avoid the infection and avoid spreading it if I had it” (Male, Year 3 student)

Subtheme 3: students’ social interactions were disturbed. Students’ social lives were negatively impacted by the pandemic. They lost most of their regular social activities as they were

Theme	Subtheme
1. Mental and social experiences	1. Students had time to reflect on themselves 2. Students felt fearful and uncertain 3. Students’ social interactions were disturbed 4. Students were stressed and anxious
2. Lifestyle changes experiences	1. Students’ way of life was changed 2. A lot of free time that was not utilized properly 3 Shifting dieting patterns 4. Most students became physically inactive 5. Students sleeping patterns were disturbed

Table 2.
Themes identified from
medical students
narratives

socially isolated from their friends, peers and distant family members by staying at home for long periods of time. They talked about how difficult it was for them to be isolated from the university, missing their friends and colleagues.

- (1) “It was so different than who am I as an individual. I’m more of an outgoing person and I love socializing” (Male, Year 3 student)
- (2) “Being at home for most of the time and not socializing with others was frustrating” (Female, Year 3 student)
- (3) “I was bored of the same routine because, before the pandemic, I used to meet up every day with my friends” (Male, Year 4 student)

Students discussed, how they shifted to social media to overcome this feeling of being socially isolated, trying to compensate for the loss of their regular social lives. Another advantage of their social media interaction and shifting their learning online was that they learned new communication skills using e-learning platforms and online video conferencing tools as they lost their normal social life.

- (4) “Normal day-to-day human interaction was taken from us and we had to resort to social media and other virtual methods to interact with people to perform our daily tasks” (Male, Year 4 student)
- (5) “People might see this pandemic negatively, but in fact, we learned new skills and how to adapt during tough times when normal human interaction is taken from us” (Male, Year 4 student)

Subtheme 4: students were stressed and anxious. In addition to fear, uncertainty about the future and the existing situation as well as social isolation, students talked about how stressed and anxious they were due to all the COVID-19 control measures like closures and lockdowns, as they spent most of their time at home. Spending time at home frequently led them to argue and conflict with others around them, further aggravating their stress.

- (1) “I had the mental breakdown more than one time, especially because I didn’t go out of my house for a long period of time” (Female, Year 3 student)
- (2) “Most of my time would be spent in my room, alone, either studying, lazing around, or sleeping. My mental health was affected as I became more vulnerable to depressive episodes” (Female, Year 3 student)
- (3) “A lot of conflicts occurred due to different personalities and ideas” (Female, Year 3 student)

Theme 2: lifestyle changes experience

Subtheme 1: students’ way of life was changed. Students believed that the pandemic changed their lives in an unprecedented way. They had to comply with the new norms set by the public health rules in place, including wearing face masks, using hand sanitizers and getting their temperatures checked before entering closed places. All this seemed to force them to adapt to the new realities of living under a pandemic affecting their regular lifestyles.

- (1) “Due to the COVID-19 pandemic, I was forced to change many things regarding my lifestyle” (Male, Year 4 student)
- (2) “I am now used to wearing face masks and checking the temperature before entering the campus, which was not seen before the pandemic” (Male, Year 4 student)

Subtheme 2: a lot of free time that was not utilized properly. Students narrated how they found themselves in the middle of plenty of free time that they believed was wasted and not utilized adequately, and they perceived that they had become more disorganized than before the pandemic.

- (1) “The pandemic really pushed me down at first because before that, I was organizing my time very effectively. Kept time for the gym, family and friends and studies” (Male, Year 3 student)

However, for some other students, the availability of free time contributed positively to their lifestyles during the pandemic. For instance, a student said that he was able to use his free time more effectively and became more productive.

- (2) “The quarantine showed me how much time I wasted on useless activities before, and I recycled that time to more productive activities and rearranged my priorities” (Male, Year 3 student)

Subtheme 3: shifting dieting patterns. For many, the pandemic was associated with changed eating patterns. Some of them took the opportunity to shift to a healthy diet and ate balanced meals perhaps because they had more time to cook at home.

- (1) “I started eating proper breakfast because there was time in the morning rather than rushing to the university” (Female, Year 3 student)
- (2) “I was focused on maintaining a healthy diet” (Female, Year 3 student)

For some other participants, the dietary pattern changed negatively. For them, the predominant eating pattern was consuming unhealthy food, despite knowing that what they were consuming was not healthy. Ordering food from restaurants or eating takeaway food instead of preparing food at home became a lifestyle for these participants.

- (3) “Most of my food was not healthy anymore” (Male, Year 4 student)
- (4) “I did buy more takeout food because being at home all the time meant that I’d either have to make food or buy it. And it was usually the latter, since I would be studying (and had little time to cook)” (Female, Year 3 student)

Subtheme 4: most students became physically inactive. Most students regretted that they became physically inactive during the pandemic due to the lockdown and closure of gyms, losing opportunities for physical fitness. As a result, they believed that they gained more weight during the pandemic.

- (1) “My body strength and gains decreased a lot” (Male, Year 4 student)
- (2) “Became more sedentary and the time was spent between watching TV and eating so during this pandemic there was a gain in weight” (Male, Year 3 student)
- (3) “During the lockdown period and when gyms were closed, I was forced to stop going to the gym for more than 7 months and this was disturbing since I enjoyed going to the gym to keep my mind off studying” (Male, Year 4 student)

However, some of them, who were probably overweight, found extra time to start exercising and lose weight.

- (4) “I started to exercise more due to the extra free time I had” (Female, Year 3 student)
- (5) “I increased my physical activity with the help of a trainer. I felt much better. I lost around 14kg” (Female, Year 3 student)

Subtheme 5: students sleeping patterns were disturbed. The pandemic impacted students' sleeping patterns as they explained that they spent most of their days at home because of limitations on outdoor activities. Moreover, with transforming to online learning, they believed that they no longer needed to get up early in the morning to commute to campus.

- (1) "I no longer have an organized sleeping schedule since most sessions are still online." (Male, Year 4 student)
- (2) "This had an impact on my sleeping schedule since I did not have to go attend the university so it was fine to sleep late and wake up just before the afternoon" (Male, Year 4 student)

Discussion

This study examined the lived experience of medical students' two years into the COVID-19 pandemic, strength of the study since it is relatively a long period, with its progression from uncertainty into a global pandemic along with all its preventive measures including social distancing, closure and lockdown mandates. Moreover, the study has highlighted the impact on the social and health wellbeing of students who are studying in small groups learning environment.

Students all over the world naturally enjoy living an active social life. Our study found that this pattern of life was among the first activities to be affected by the closure and lockdowns. Furthermore, it has impacted the students' mental wellbeing. In this study, medical students reported that being socially distant from their colleagues, teachers and campus life had a negative impact on them, leading to stress and anxiety as they spent most of their time at home. Although students felt fearful and uncertain with all the pandemic news and control measures, their views on their lives were changed. They started to appreciate what they had in their lives and looked positively to the pandemic as it gave them the opportunity to think and reflect. These results are consistent with the findings of studies done with undergraduate students from other parts of the world (Alghamdi, 2021; Elsharkawy & Abdelaziz, 2021; Hamza, Ewing, Heath, & Goldstein, 2021; Mekonen Workneh, Ali, & Muluneh, 2021; Wang *et al.*, 2021), which clearly demonstrates the consequences on the health and the wellbeing of medical students who were subjected such a forced lockdown (Abdul-Email *et al.*, 2022; Alkureishi *et al.*, 2022; Mosleh *et al.*, 2022; Sekulic *et al.*, 2022).

During the pandemic, students' ways of life were changed as they started to adapt to preventive control measures like wearing facemasks and using hand sanitizers. During the mandated lockdowns, students' lifestyle-related behaviors were shifted into unhealthy patterns as they mostly became sedentary and physically inactive. They had a lot of free time; however, it was all wasted, and they were mainly unproductive. Moreover, it affected their sleeping pattern. While life is slowly coming back to normality, it is unlikely that these disturbances in the duration and pattern of sleep will normalize soon. The dietary habits of students seemed to have changed negatively, with a higher dependence on restaurant and takeaway food rather than on home-cooked safe food. This change in eating habits would result in overweight and obesity, as well as problems with essential nutrient deficiencies (mainly vitamin deficiencies). Similar results were found among university undergraduate students from other parts of the world (Bertrand *et al.*, 2021; Majumdar, Biswas, & Sahu, 2020; Matusiak, Szepietowska, Krajewski, Białynicki-Birula, & Szepietowski, 2020; Silva *et al.*, 2021; Stockwell *et al.*, 2021).

People traditionally have viewed doctors as their role models. People also consider health professionals as the guardians and leaders of healthy lifestyle patterns. The results of this study show that current medical students, who would be future physicians, were not able to cope with the changes imposed on them during the COVID-19 closure and lockdowns. Since it

is unlikely that the adaptation of medical students to negative lifestyle behaviors is going to revert soon to a healthy pattern or even a near-normal pattern and there is a real risk that these medical students will be far from being role models for their patients when they commence their medical careers as physicians.

The findings of this study provide an insight into the potential mental health and lifestyle changes among medical students in problem-based medical schools during the COVID-19 pandemic. Since many of these changes are unlikely to be short-term as students' habits may never revert to the pre-COVID-19 pandemic era, it is recommended that educational institutes should adopt policies that provide students with health, mental, social and educational support. Additionally, future research should address the intermediate and the long-term effects of COVID-19 lockdown and social distancing on students' lifestyle and mental health using appropriate robust designs.

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