

Students' Academic Lifestyle in COVID-19 Crisis: A Qualitative Study with a Phenomenological Analysis

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Abstract

Background: COVID-19 crisis has created special educational conditions. This challenge has brought about changes in students' academic lifestyles.

Objectives: We aimed to conduct a qualitative study on the students' academic lifestyle and quality during the COVID-19 crisis.

Methods: This is a qualitative method with a phenomenological analysis. The research was conducted within the framework of logic sampling on 50 students with a phenomenological approach to Medical, Health, and Laboratory Sciences students. It was purposeful. Students were asked to describe the style and quality of their academic life in the form of expression of experience during their COVID-19 crisis and quarantine, and then the analysis of the students' written work was performed using Colaizzi's seven-step process. Four-dimension criteria were also considered to assess rigor of qualitative research (credibility, dependability, conformability, and transferability).

Results: Of 64 codes obtained in the research, five themes and 11 sub-themes emerged. Themes included items such as 1) unknown stress and anxiety, vague future and professional problem, 2) cognitive burden (information literacy, bulk contents, need for self-paced, and need for mastery), 3) interests (following interest and compensation process), 4) skills (self-regulation, self-direction, and time management), and 5) security (available content, exercise, and practice).

Conclusion: According to the results, it can be stated that changing the academic lifestyle can provide improved personal skills and information literacy, but changing the academic lifestyle in a negative direction with cognitive burden and fear of the unknown has created many problems in the process of this lifestyle.

Keywords: Academic Lifestyle, COVID-19, Medical Education, Phenomenology Approach, Qualitative Study, Active Learning

Background

As of December 2019, a large number of COVID-19-infected patients were reported in Wuhan, Hubei Province in China. The rapid progress of coronavirus disease has significantly increased mortality and has become a worldwide pandemic, with significant potential for adverse effects on mental health and various aspects of life, including education (1, 2). Today, many educational programs are done in modern scientific ways and with the help of technology development. In this regard, promoting students' scientific literacy and helping them understand science and the nature of science, obtaining basic scientific concepts, and realizing the connections between science and technology, society and environment and, more importantly, the acquisition of scientific values and

attitudes, as well as the continuation of scientific studies, are among the most important goals of educational systems (3). The quality of students' academic life, as an active and prominent part of the society, significantly affects learning and increases scientific awareness and their academic success. In fact, students' quality of life is a clear sign of their satisfaction with their student life (4).

Quality in general and quality of life, in particular, is a complex concept consisting of various objective and subjective dimensions. The most common concept of quality of life is the concept of well-being and the way people look at life (5). The need for research arose since higher education systems in Iran and some countries do not function properly in providing facilities, services and opportunities for students' development. This inefficiency has created problems for students and while

creating dissatisfaction with their academic life, it has disrupted their learning process and socialization (3). The study of quality of life not only in Iran but also in the world is a relatively new topic and the quality of students' academic life also falls into this category (5).

In the model of quality of academic life of South Korean students, the need for health, security, and economic needs in the university environment is examined and the criteria for quality of students' life are presented (4).

Sirgy et al. (2007) have conducted many studies to assess the quality of academic life, among which the first study included 2,812 undergraduate students from 10 universities around the world. Data were conducted among undergraduate students using an online questionnaire. The results of the study approved the hypothetical model as well as the validity of the tool. The second line of the study was conducted to investigate the developed model. In this model, 7. Sirgy et al. (2010) emphasized the satisfaction with university life as one of the multiple dimensions of individual life, which can play an effective role in overall life satisfaction (6, 7). COVID-19 crisis conditions have created special conditions in education. This challenge has brought about changes in students' academic lifestyles.

At this critical educational time and COVID-19 crisis, major changes have taken place in the transmission of the principles of the courses (8, 9) The development of professional activities and learning based on competencies is measured by new indicators. The timing of some curricula in some universities has changed and the delivery of some courses is delayed (10).

In order to prepare students for future professional careers, training students to face sensitive job conditions faces many challenges. COVID-19 crisis has had a significant impact on medical education, and this cannot be ignored. In this situation, many contents and educational items in the virtual form were changed and the evaluation of learning resulting from these changes was very important (11). Change in classroom teaching through technology and social distance in teaching and change in teaching and learning styles from face-to-face teaching to instrumental teaching through technology, such as Zoom, Adobe, and Blue Baath have resulted in changing the style of learning and teaching in universities (12). What needs to be considered is whether this fills the gap between returning to a normal lifestyle for students or causing change and creating tension and stress in users (13). On the other hand, acquiring various capabilities in the field of placing clinical students in a crisis environment shows that this has not been able to change the field for their readiness

and leads them to be more powerful than ever in clinical and professional life (14).

Objectives

Due to COVID-19 crisis and the closure of face-to-face class, the teaching and learning process showed fundamental changes. One of these was the change in students' academic lifestyle. This process with the educational crisis could have major effects on students' educational experience. Students' style in adapting to change and review of this process in experience can help to deepen this issue. The aim of this study was to attend to the academic lifestyle of students during COVID-19 crisis in the form of a qualitative study with a phenomenological approach.

Methods

This research is a qualitative method with a phenomenological analysis that was conducted with the aim of examining students' experiences of the academic lifestyle in times of COVID-19 crisis and its quality. Sampling of the research was conducted within the framework of logic sampling with a phenomenological analysis which was purposeful. In this way, all students in the LMS system in different levels of education from the Department of Medicine, Health, and Laboratory Sciences were investigated. The study was categorized into three educational groups that had different courses and were in different stages of medicine from the freshmen to basic sciences (360 people), freshmen health students (17 people), and sophomore laboratory sciences (25 people) that were available in the LMS system in the first semester of 2021 (between December 2020 to February 2021). All students were users of the LMS system from the start of COVID-19 pandemic. All students were interested in sharing their experiences, and informed consent was obtained from the subjects to participate in the study voluntarily.

Students were asked to describe the style and quality of their academic life in the quarantine and COVID-19 crisis, and then an analysis of the students' writings was performed. One part of the data was also expressed in WhatsApp space and in the form of text and voice communication for the teacher as a focus group. Focus group size and number of students were different in all groups.

Also, participation of the students in the LMS space was completely optional and the students acted with their desire to send their experiences. However, the teacher reminded and requested the expression of experience. A total of 50 students in all groups wrote their experiences and their experiences were analyzed. The data were reviewed with the approval of two experts

in qualitative analysis and their agreement was the criteria of extracted sections in the results. With the aim of maximizing the variance of content validity, a request for cooperation and participation in writing the academic lifestyle was made in different groups and sections as a triangulation (Diversity of students from different groups and different genders) helped increase data validity. Students were assured that their experience in this field would be used only for research.

In data analysis, seven steps in Colaizzi's descriptive phenomenological method were used for data analysis (15). This process concludes: 1. Familiarization: The researchers familiarize him or her with the data, by reading all statement several times 2. The researcher identifies all statements that are of direct relevance to the phenomenon 3. Formulating meanings: The researcher identifies meanings relevant to the phenomenon that arise from a careful consideration of the significant statements. 4. Clustering themes: The researcher clusters the identified meanings into common themes across all accounts 5. Developing an exhaustive description: The researcher writes a full and inclusive description of the phenomenon. 6. Producing the fundamental structure: The researcher condenses the exhaustive description that captures just those aspects to the structure of the phenomenon. 7. Seeking verification of the fundamental structure: The researcher returns the fundamental structure statement to all participants to ask whether it captures their experience (15).

Lincoln and Guba (1994) mentioned four criteria for the validity of articles and qualitative analysis, including credibility, dependability, confirmability and transferability. Also, reflectivity is one of the major criteria in qualitative research (16, 17). Prolonged engagement in the LMS system, appropriate interaction with participants by data review, and member check were considered to increase credibility. Also, the assurance of dependability or the stability of the findings was checked by using the opinions of external checkers and re-reading the data together. Allocating enough

time to analyze the data and not personal interpretation of it and then returning and reviewing the main concepts underlying the scenarios and participant storytelling could help ensure the validity and reliability of the work (transferability and fittingness). To develop reflexivity, researchers continuously tried to match their positions during the interview or observation and react accordingly to what the research had seen and heard.

Results

A total of 50 students in all groups wrote their experiences and their experiences were analyzed. In this study, 56.4% of students were female and the rest were male. All participants in this study included medical (27 subjects), sophomore laboratory sciences (12 subjects) and public health (11 subjects). Of 64 codes obtained in the research, five themes and 11 sub-themes were extracted. Themes included items such as unknown stress and anxiety, vague future, and professional problem, cognitive burden (Information literacy, bulk contents, need for self-paced, need for mastery), interests (following interest, compensation process), skills (self-regulation, self-direction, time management), and security (available content, exercise and practice, healthy environment in family) (Table 1). As a result, five themes and 11 sub-themes were extracted.

The first theme includes the unknown: This theme consists of three subthemes (stress and anxiety, the life's vague future with a virus, and professional problems). In this situation, students experienced symptoms such as anxiety and worry and spoke of a kind of cognitive conflict over the comparison of traditional and virtual education.

Their main concern was how to adapt to the situation. Anxiety and worry about the type of education as well as the time and life with COVID-19. Some also expressed anxiety about the professional future, lack of deep learning in virtual training, and lack of mastery over content.

Table 1. Themes and sub-themes and sample statements in the research

Themes	Sub-themes	Statements sample
Unknown	Stress and anxiety	"Stress and worry ruin my soul. A damn virus has come to bother us"
	Vague future	
	Professional problem	
Cognitive Burden	Information literacy	"The volume of homework they upload is many times greater than the amount of regular homework. I become dizzy"
	Bulk contents	
	Need for self-paced	
	Need for mastery	
More attention to interests	Complexity of contents	"One of the best things I can do is read novels that I liked to read for years and did not have time for".
	Following interest	
	Compensation process	
Skills	Self-regulation	"I think this period is a good opportunity for a person to regulate his/her affairs and thoughts"
	Time management	
	Self-direction	

Safety	Available content,	“One of the good things is that you are in your own home and in your own room and you do not have to put up with others in a small dormitory. Whenever you like, you study even in the middle of the night and no one has anything to do with you”.
	Exercise and practice	
	Healthy environment in family	

A sophomore medical student “Stress, anxiety, and worry kills me that damn virus is to disturb us badly... I went to bed at 12...I checked my phone to read news as my routine.... high rate... mortality.... people with masks and gloves.... their fear...celebrities beg people to stay at home.... medical staff and their hard time....my brother with ruined lungs and my worry for him!!! I stayed up till morning...I woke up having a bad headache.... got my phone to check our class group that was about assignment and content on the site...oh, how can I handle this one?”

The second theme was cognition burden: which was characterized by sub-themes such as (need for mastery, bulk contents, need for self-paced, complexity of content, and students’ information literacy) cited the cognitive burden of presenting and mastering bulk virtual content as a factor in creating cognitive load, and on the other hand, the need for master and self-read courses, the complex content of some courses and individual mastery of it as a cause of stress and pressure on their mental power. Some expressed the lack of information literacy in the search for resources and the use of content and the lack of skills in this field as factors of stress and increased mental load in how to use and apply the content.

“Health student “Hi. I cannot imagine worse. When you log in to the LMS system, you face lots of files sent by professors that are frustrating instead of motivating. For instance, 13 neuroanatomical files are loading on site and it is very stressful, also other courses do the same which disrupts our concentration...if we had online classes, we did not have such problems....I have criticize of this issue. I wish I could follow it up...professors do it for their own convenience, but.....”.

Attention to interests: following them were another theme seen in the academic lifestyle. Pursuing interests with the extra earned time, dealing with personal matters, and abandoning interests were some of the topics that were observed. Studying books at this time had opened its way among the interested students.

Other themes were more interesting: This theme consisted of two subthemes. Following interest and compensation process.

“A junior medical student; “Reading novels, which are on my to-do list for a long time is the work I enjoy doing. Apart from the assignments that professors upload, we are learning that we can study without the concern of tests and passing them. We understand that

if we learn a word today, it can help us tomorrow undoubtedly.” A medical student: “I closed my eyes and prayed...opened my notebook and drew an emoji and started studying...skimmed the content and got help from references to complete my information for writing a good handout. At the end of my handout, I wrote: hey life! You are hard on me but I survive. Maybe I am sadder than before, but I believe in good things of life to live since they are a lot. “

Another theme was skill: These themes consisted of three themes (Self-regulation, self-direction, and time management).

Laboratory Sciences student

“In education, I have tried to stand on my own foot and get help from books, internet, etc.,...to answer my questions that I am so planned in comparison to the first days of quarantine time that I was unplanned. I can handle the volume and time of courses to lessen my worries. I think it is a hard but useful experience for both learners and teachers since it causes better management of virtual studying by getting experience. It can also be a good experience for professors to prepare voices on files and Power Points to give students peace and calm. I wish our professors understood us to reduce our stress, especially concerning that we are freshmen students and we are not familiar with exams. “

Safety was one of the topics: This theme consists of three themes (Available content, exercise and practice, and a healthy environment in a family). The safety of physical environment and healthy family environment without any traffic and illnesses, along with the presence of ready content, the possibility of practice and repetition, access to the content and the teacher in virtual environment were the reason for following safety for students. A medical freshman student: “We cannot attend real classes anymore. It has problems, but it also has positive points. Being at home all the time, being with your family and yourself, planning for life, self-cognition ...are among its blessings. Studying and learning are much easier at home (provided that educational content is complete and is provided on a plan; otherwise, studying bulky content that has no plan in their presentation and assessment is not easy at all). It is a good thing that I know that our professor’s audio file (if clear!!!) and in a better quality than the real class’s recording exists and we can listen to it anytime we desire is a very good happening. Living at home instead of dormitory, in which we have control over everything

and we are not to spend days in a small room full of students, is a motivation to pray to God not to put an end to these days!!!”

Other results of students' expression that were shown in list are as follows: Simulation of regular classes and daily study; exercise and practice to master the content of learning; upgrading information literacy to master various content types; search for auxiliary scientific resources along with the main content; attending classroom debugging sessions; search for scientific resources from other universities and internet resources; earning from peers; managing to learn and changing study methods.

Discussion

Five themes and 11 sub-themes were extracted. Themes include items such as the unknown (Stress and anxiety, vague future, and professional problem), cognitive burden (Information literacy, Bulk contents, need for self-paced, need for mastery), interests (Following interest, compensation process), skills (Self-regulation, self-direction, and time management), and security (Available content, exercise and practice, healthy environment in family).

Unknown: Also, stress, anxiety, worry, and fear of the academic future were mentioned as one of the main reasons for e-learning during COVID-19 pandemic in the present study. The consequences of COVID-19 outbreak have affected all aspects of human life. Results showed psychological problems with COVID-19 associated with psychopathology symptoms among university students. The World Health Organization has issued guidelines for managing this problem from a biomedical and psychological perspective. Preventive and medical measures are the most important measures at this stage (18). University students are prone to psychological symptoms during COVID-19 outbreak, so in the beginning of the outbreak of this disease in Iran, as in other countries, the closure of universities was one of the first and most important measures to prevent the spread of the disease (19).

Similar research conducted in previous crises of infectious diseases shows that a wide range of emotional and psychological problems have been experienced that can be compared to COVID-19 crisis. Evidence suggests that the widespread prevalence of SARS created a level of anxiety, fear, and emotional distress (20). The results of other studies conducted during COVID-19 crisis also showed similar symptoms in individuals. Also, research has shown that in addition to mortality, COVID-19 also has negative psychological problems that have several psychological effects, including anxiety (21). According to a study conducted in China on 7,000 students during

COVID-19 outbreak, the results indicated that the most important cause of anxiety among students is their concern about the impact of the virus on their future education and employment status (22).

Safety: Safety is one of the most important themes in this study. Students can share their concerns and fears about contracting the disease and the adverse effects of the disease, like the closure of classrooms and universities and the uncertainty of the future for them, as well as receive the attention and help of others and achieve an understanding that there are always sources of support in any situation in the days of an outbreak of an infectious disease, including coronavirus, by expanding their network and receiving support from family, friends, and classmates to achieve peace of mind and reduce their stress and anxiety. Thus, perceived social support leads to a kind of self-confidence and assurance of effective and beneficial exposure to COVID-19. As a result, people with high perceived social support are less likely to have anxiety due to COVID-19 (23). It seems that COVID-19 anxiety can be a vulnerable factor for other psychological disorders in this segment of society due to the restrictions, the closure of educational centers and the feeling of danger from the effects of this disease on their future. Therefore, recognizing the factors affecting COVID-19 anxiety will be very important in this group. The use of adaptive mechanisms in reducing its psychological consequences and reducing the negative educational effects caused by it can be in line with the above-mentioned pieces of evidence.

Cognitive burden: The results of the present study showed that the bulk of educational contents has been one of the stressors of e-learning in COVID-19 time. The results of some studies showed that from the students' point of view, the content of the curriculum was at an undesirable level, which is consistent with the results of the present study (24). There is considerable evidence that shows virtual education can put a higher cognitive burden on students. This problem was higher than in face-to-face education (25). Also, there is evidence that students prefer face-to-face teaching to online teaching due to interactive teaching-learning process (26).

Skills: The results of the present study showed that students use different methods in learning in their academic lifestyle. One of these methods is to manage to learn and change the method of study and repetition and practice to master the content of learning. Choi et al. (2021), in their study, examined the effectiveness of peer learning in undergraduate nursing students. They showed the effectiveness of peer-assisted learning on

support, sharing and discussion during the debriefing in simulation practice. The results of the present study are consistent with this study (27). It seems that specialized instructors should be assigned to teaching in cyberspace. To increase interaction, a variety of activities, such as online discussion and computer conferencing, as well as combined methods such as e-mail discussion or audio-visual methods, should be utilized.

One of the active learning methods is peer training. Peer group training is a type of educational strategy that is defined as the development of knowledge and skills through active interaction and support people at the same level. In the peer teaching method, both of the teacher, who designs and directs the teaching situation, and the student, who uses the method, are involved in the continuous teaching experience and participate in the teaching process. This method is one of the most important and effective methods for educating learners, the use of which is increasing in all educational levels of medical sciences (23). It has been reported that peer-to-peer methods can increase intergroup collaboration in the transmission of health information (28).

In fact, this method is a useful way to prepare students to perform their future role as teachers of medical sciences (29). In several studies, the improvement in academic performance has been shown by the peer group using the training method (30-32). The findings of Ramaswamy et al.'s study (2010) showed that students could effectively cover the content of the curriculum. In addition, peer education provides an opportunity for the student to deeply understand the subject and become proficient in the subject he/she is teaching. However, students who listen to us (as learners) concern that they will not learn as well as when the teacher teaches (33). In a study conducted by Mehrabi et al., the results showed that learning with the help of peers effectively increases the clinical reasoning skills of dental students (34). The findings of this study are consistent with the present study, in which the students mentioned peer learning as one of the learning methods. It seems that in the current COVID-19 crisis, the use of peer learning methods along with the use of different other learning methods can prevent the monotony of online classrooms and also prevent fatigue and lack of motivation in students. Therefore, students can participate more in online classrooms by further use of this method. As a result, increasing learning and teaching activities, skills, experience and mastery of students as much as possible may be expected to increase students' participation.

The positive points of COVID-19 crisis also are presented by students. These points include self-efficacy, self-regulation, self-management while

rethinking time management skills. These skills obviate the need for master personal performance and how to move toward achieving educational goals. Self-directed learning is a learning behavior that paves the way for people to learn continuously on their own intuition (35). The benefits of self-directed learning include increased power of choice, motivation, self-confidence, self-efficacy, and enhanced lifelong learning skills. This type of learning encourages learners to develop their ability to measure their knowledge defects and then explore the sources that are effective in fixing the defects. Thus, individuals use their knowledge to identify available resources and make conscious judgments to solve problems (36).

In their study, Ghureshi et al. examined the effectiveness of the native model of student learning. They concluded that the native model of e-learning is consistent with self-strategy and was effective in raising the overall score of self-strategy in learning and its components (37). Fallahi et al. (2020) examined the relationship between self-directed learning and e-learning of students during COVID-19 pandemic. The results showed that there was a significant relationship between self-directed learning and e-learning (38). The results of the present study show the lack of mastery of learning contents at high level of presented contents and complexity of contents are one of the stressors of e-learning in COVID-19 era. In the field of learning activities, it seems that group activities are rarely formed in virtual classrooms and students do not benefit much from each other's experiences (39). Others concluded that although the opportunity for group activities in face-to-face and virtual classes is average to low, this shortage is felt more in virtual classes (40). Inclusive activities that increase students' interaction with each other as well as with the teacher seem to increase group activities and thus help master the learning content. This personal skill is so important in virtual learning. Also, self-promotion and self-pace skills are important issues from the viewpoint of students. It seems that in order to increase the quality of e-learning, a platform should be provided to enhance the ability of self-directed learning so that students can learn in different situations such as COVID-19 outbreak, which reduces the possibility of physical presence and most students pursue home education. Also, anyone with a high ability to learn as a leader can learn better in the context of technology and electronic content.

Strengths and limitations

The limitations of the research can be counted as doing it in a virtual situation and in the form of

its expression in the LMS system of the university without the possibility of face-to-face interviews. However, attempts were made through repeated virtual contacts to provide the possibility to expand and understand the details.

Conclusion

According to the results, it can be stated that the change of academic lifestyle in the COVID-19 time with a virtual nature by having different benefits has created the possibility of planning, self-management, and self-regulation and then improving personal skills and information literacy, but has also changed academic lifestyle in a negative direction with cognitive burden due to the volume of curriculum and the need for personal management in its management and fear of the unknown. These conditions, with a better understanding of policymakers, can become an educational opportunity and provide a basis for taking advantage of the situation.

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