

ORIGINAL ARTICLE

UNIVERSITY STUDENTS IN THE CONTEXT OF COVID-19: PROFILE, BEHAVIORS AND ACADEMIC ACTIVITIES

Angélica Trindade Fagundes¹ Janaína Quinzen Willrich¹ Milena Hohmann Antonacci¹ Luciane Prado Kantorski¹ Dariane Lima Portela¹ Thylia Teixeira Souza²

ABSTRACT

Objective: to describe the sociodemographic profile, academic activities, and behaviors of college students in the context of the COVID-19 pandemic. Method: cross-sectional, descriptive, quantitative study, which had data collected between August and September 2020, via Google forms, in Rio Grande de Sul, Brazil. Data were analyzed using descriptive statistics. Results: of 536 students in the optional discipline of Mental Health in Humanitarian Emergencies, offered by the Federal University of Pelotas, in the alternate semester in 2020, 464 participated. Of these, 53.45% were in isolation and social withdrawal, 40.73% had worsening financial situation, 66.59% sought family support, and 85.96% followed distance activities. Conclusion: the distancing and social isolation were fundamental for the control of the infection by COVID-19, but presented negative factors, such as worsening of the financial situation, and positive, the adaptation to the new approaches for the continuity of the remote classes.

DESCRIPTORS: Universities; Education, Higher; Students; Pandemics; COVID-19.

HOW TO REFERENCE THIS ARTICLE:

Fagundes AT, Willrich JQ, Antonacci MH, Kantorski LP, Portela DL, Souza TT. University students in the context of covid-19: profile, behaviors and academic activities. Cogitare Enferm. [Internet]. 2022 [accessed "insert day, monh and year"]; 27. Available from: http://dx.doi.org/10.5380/ce.v27i0.82306.

INTRODUCTION

The pandemic of COVID-19 caused a reorganization to meet the demand caused by the implications of the event that devastates the world population, not only in health services, but also in the activities of daily life of countless people. This reorganization includes the coping strategies of schools and universities, which have had to adapt their teaching format, previously face-to-face, to a remote format⁽¹⁾. In the university environment, this has caused a sequence of episodes that have reflected on the physical and mental health of students. Many had to deal with issues related to the infection of COVID-19, in addition to changes in their personal lifestyle, in the family, economic, social, and finally academic contexts to follow through with their life projects⁽²⁾. For many, the pandemic was a decisive moment, as it divided opinions and proved to be challenging for everyone.

One theme discussed in this context is distance learning, which proved to be an emergency strategy to ensure the continuity of academic activities in times of social distance imposed by the pandemic. This paradigm shift - the migration from face-to-face teaching mode to the remote (synchronous/asynchronous) - has made the academic universe a space of re(construction) for the distance learning modality, which required flexibility on the part of teachers and students for the development of this learning and involvement process through collaboration and interaction⁽³⁾.

Studies⁽⁴⁻⁵⁾ show that this teaching modality has shown promise if students have access to the internet and mobile devices so that they can follow the activities at home. In addition to data on distance learning, it was observed that studies⁽⁶⁾ focus on the infection by COVID-19, forms of prevention, and treatment. However, other important issues - such as changes in income and social distance/isolation, which impact the mental health of those affected by the pandemic - have not been addressed in research that focuses on university students.

As a result of COVID-19, several students experienced significant changes in their engagement and learning abilities, leading to consequences such as lack of follow-through and performance in teaching activities. The daily stress, driven by the need for social isolation and the consequent absence of contact with people, generated negative feelings in these students. A relevant point is the issue of material conditions, which had repercussions on the follow-up of the activities. That, the resources, and the physical space were the greatest hindrances for students in remote teaching⁽⁷⁾.

In this sense, the objective of this study is to describe the sociodemographic profile, academic activities, and behaviors of college students in the context of the pandemic of COVID-19. Studies focused on this population are justified because college students will soon be part of the labor market and may present sequelae, for example, physical and mental illnesses, which can have an impact on public health.

METHOD

This is a cross-sectional, descriptive, quantitative study. Data were collected from August 4 to September 12, 2020, through a census among students who attended the optional subject Mental Health in Humanitarian Emergencies, offered by the Federal University of Pelotas, during the COVID-19 pandemic, in the alternate semester, in 2020.

All 536 students who attended the course to the end were recruited via e-mail and received informed consent electronically via Google forms, expressing their interest in participating in the research by filling out the form. Next, the students received the electronic survey questionnaire, also via email. The questionnaire was answered by 464 students, with a response rate of 86%.

The inclusion criterion for the participants in the study was attending the course to the end, and the exclusion criterion was the student dropping out or cancelling the course.

The research used a self-administered online questionnaire that, after being answered, was duly coded and migrated to the EpiData program. The data were then cleaned to correct amplitude and consistency errors.

The questionnaire was designed by the research group and previously tested with a group of students who were not part of the study. The variables presented in this article were those related to sociodemographic characteristics, such as gender, ethnicity, age, marital status, family income and undergraduate course. The variables related to remote teaching were offering of subjects/courses in the remote modality, difficulties in students' follow-up, and contributions.

Data quality control was performed by checking the questions regarding the completion of the questionnaire and, three times a week, the questionnaires available in the system were backed up. The data were analyzed using descriptive statistics with the help of the SPSS v. 25.0 program.

The present study is a cutout of the thematic project entitled "Mental health in times of pandemic of COVID-19", of whose team the authors are part. It was approved by the Research Ethics Committee of the Faculdade de Medicina da Universidade Federal de Pelotas through opinion no. 4,186,982, dated August 1, 2020. The confidentiality and anonymity of the participants were guaranteed, since, when migrating to the database, the questionnaires are identified through coding. The data will be stored at the university for five years.

RESULTS

In Table 1, it is possible to identify the sociodemographic profile (gender, ethnicity, age, family income, marital status, and course) of the college students participating in this research.

Table 1 - Sociodemographic profile of the students who participated in the research. Pelotas, Rio Grande do Sul, Brazil, 2021 (continues)

	n	%
Gender		
Female	329	28,9
Male	134	71
Ignored	1	0,1
Ethnicity		
White	355	76,5
Brown or mixed race	35	15,3
Black	71	7,5
Yellow	3	0,7

Age		
18-24 years old	352	76
25-29 years	69	14,9
>30 years old	42	9
Ignored	1	0,1
Marital status		
Without partner	412	88,8
With partner	52	11,2
Family Income		
Class E	131	28,2
Class D	133	28,7
Class C	112	24,2
Class B	28	6
Class A	5	1
Ignored	55	11,9
Courses		
Nursing	76	16,4
Medicine	160	34,5
Psychology	43	9,3
Occupational Therapy	15	3,2
Dentistry	36	7,8
Languages	11	2,4
Pedagogy	11	2,4
Agronomy	12	2,6
Other courses	99	21,3
Ignored	1	0,1

Source: Authors (2021).

Of the students participating in this research, 329 (71.1%) were female. The mean age identified by the study was 23.4 (\pm 5.7) years, ranging from 18 to 56 years old. It was observed that 355 (76.5%) declared themselves as white and 109 (23.5%) as non-white. It was found that 412 (88%) of the participants do not have a partner and 52 (11.2%) do. As for social class, 131 (28.2%) belong to E, with family income of up to two minimum wages; 101 (28.7%) to D, with family income between two and four minimum wages; 112 (24.1%) to C, with family income of four to 10 minimum wages, 28 (6%) to B, with income between 10 and 20 minimum wages, and five (1%) to A, with income above 10 minimum wages. The average number of dependents in this income is \pm 1.3 person (3.3%).

Among the students in the sample, 160 (34.6%) studied Medicine, 76 (16.4%) Nursing, 43 (9.3%) Psychology, 36 (7.8%) Dentistry, 15 (3.2%) Occupational Therapy, 12 (2.6%) Agronomy, 11 (2.4%) Literature, 11 (2.4%) Pedagogy, and 99 (21.3%) other courses.

As for the areas of knowledge, 310 (67%) belong to the Health area, 64 (13.8%) to the Human Sciences, 17 (3.7%) to Agricultural Sciences, 16 (3.5%) to Biological Sciences,

15 (3.2%) to Exact and Earth Sciences, 14 (3%) to Applied Social Sciences, 13 (2.8%) to Linguistics, Literature and Arts, 12 (2.6%) to Engineering and two (0.4%) to Tourism, Hospitality and Leisure. Regarding the semester, the average was 4.7 (\pm 2.3) years, varying between the 1st and the 10th semester.

The data regarding the provision of activities during the pandemic in the appropriate academic units of the university, the reasons why they could not keep up with the remote activities, and the utilization of the remote activities in the context of the COVID-19 pandemic are presented in Table 2.

	n	%
Distance learning (DL) offered by the academic unit		
No, all activities have been suspended	29	6,3
Yes, and I am following up	37	79
Yes, but I am not following	68	14,7
Possible difficulties in participating in distance learning activities at a distance (D	L)	
Not applicable	3	0,6
I don't have/had no resources	28	6
I started to follow but had difficulty	24	5,2
Had to work or help at home	4	0,8
Family health problems	3	0,6
l didn't get a place	3	0,6
I didn't like the course / no courses offered	398	86
Ignored	1	0,2
Contribution of distance learning (DLT) activity in the context of the COVID-19 p	andemic	
More hinder than help	21	4,5
They neither hinder nor help	99	21,5
More help than hinder	340	74

Table 2 - Activities offered by the Academic Units of the University. Pelotas, Rio Grande do Sul, Brazil, 2021

Source: Authors (2021).

During the pandemic, some academic units of the university offered distance learning activities (DL). When asked about their course offerings, 29 (6.3%) reported that, in their unit, all activities were suspended; 435 (93.7%) said that activities were offered in their units, of which 367 (79%) followed up on them and 68 (14.7%) did not follow up on them.

Regarding the reasons why they could not follow the distance learning activities, 28 (6%) had no resources; 24 (5.2%) said they started to follow but had difficulties; four (8.0%) had to work or help at home; three (0.6%) had family health problems; three (0.6%) could not get a place to take the course, and 398 (86%) reported that they did not like the course and/or the unit did not offer courses.

Regarding the use of distance learning activities in the context of the pandemic, 21

(4.5%) concluded that such activities are more of a hindrance than a help, 99 (21.5%) stated that they neither hinder nor help, and 340 (74%) evaluated that they help more than they hinder.

The behavior of these students in relation to restrictions imposed by COVID-19, diagnosis by testing for COVID-19 or family members who have died because of COVID-19, change in financial situation, and need for family support can be seen in Table 3.

	n	%
Adhered to the restrictions of social distancing and isolation regarding COVID-1	9	
l led a normal life	1	0,2
l just stopped going to class	6	1,3
I took care of social distancing	167	36
Stayed home and went out when necessary	248	53,4
I stayed strictly at home	42	9,1
Presented COVID-19 diagnosis		
No	461	99,3
Yes	3	0,7
Death of family members because of COVID-19		
No	427	92
Yes	37	8
Loss of source of income during the pandemic of COVID-19		
No	301	64,9
Yes, I lost	37	8
Yes, a family member lost	126	27,1
Financial situation of the family during the pandemic of COVID-19		
Improved	11	2,4
Remained the same	264	56,9
Worsened	189	40,7
Networking for support during the pandemic of COVID-19		
No one	26	5,6
Classmate	6	1,3
Family	309	66,6
Friends	119	25,7
Spiritual advice	4	0,8

Table 3 - Students' behavior regarding COVID-19. Pelotas, Rio Grande do Sul, Brazil, 2021

Source: Authors (2021)

Regarding specifically the restrictions imposed by COVID-19, 248 (53.4%) students

reported that they stayed home, going out only when necessary; 36% (n=167) took the social distancing precautions, 9.1% (n=42) stated that they stayed strictly at home, six (1.3%) said that the only change in routine was that they stopped going to class, and only one (0.2%) stated that they were leading a normal life.

Among the students who responded to the survey, 461 (99.3%) stated that they were not diagnosed with COVID-19 and three (0.7%) that they tested positive. When asked about family members who died because of the disease, 37 (8%) said yes, while 427 (92%) denied having had family losses related to the new coronavirus.

Regarding the financial situation of the family, 264 (56.9%) stated that it remained the same, 189 (40.7%) that it worsened and 11 (2.4%) considered that it improved. 37 (8.0%) stated that they lost their source of income, 27.1% (n=126) reported that a family member lost their source of income, and 301 (64.9%) denied losses regarding their source of income.

During the pandemic, when asked about their need for support, 309 (66.6%) said they relied on family, 119 (25.7%) on friends, six (1.3%) on classmates, four (0.8%) on spiritual advice, and 26 (5.6%) reported that they did not rely on anyone for support when they needed it.

DISCUSSION

From the results, it was observed that the proportion of participants in the present study is close to what was seen in a Canadian study⁽⁸⁾ in which 74% of the 733 participants were female, 25% were male, and 1% were other. It is also close to a Portuguese study⁽¹⁾ that had two samples of participants and, in both, the demographic profile remained like that in Table 1: 81.4% female in sample 1 and 77.4% female in sample 2. The same holds true for a study from Zurich, Switzerland⁽⁹⁾ which, with an n=12,429, had 70% female participants.

The mean age was also maintained in other studies, in which means were identified as 20.14 years old (SD = 1.65, range = 18-25) and 20.40 years old (SD = 1.67, range = 18-25)⁽¹⁾, 21.4 ± 3.39 (min = 17, max = 52)⁽¹⁰⁾, 25 years old (IQR 23-28)⁽⁹⁾ and 20.7 (SD = 1.7)⁽⁵⁾. Regarding self-reported color, this study is in line with the study from New Jersey, United States⁽⁴⁾, in which 63% of participants were non-white.

A pertinent issue to be discussed is family income. 570 participants (73.5%) of an Indian study⁽¹⁰⁾ reported that their family had a stable income and 205 (26.5%) that their family did not. The financial issue was also present in an Asian study⁽¹¹⁾ in which students from public schools were concerned that their family income had decreased, making it impossible for them to purchase good internet packages. On the other hand, students from private universities had to cancel their courses, with no perspective of return, due to the financial modification of their families.

We noticed a great variety in relation to courses and areas. In other studies^(5,9,12-14), this was often related to the faculty that instituted the survey. In a Chinese study⁽¹⁵⁾, it was noted that the most represented majors were Engineering (n=565, 29.74%), Liberal Arts (n=261, 13.74%), and Agriculture and Life Sciences (n=189, 9.95%).

In relation to the enjoyment and difficulties of remote learning, in a US study⁽⁵⁾, many participants (89%) had difficulty concentrating on academic work due to distractions in the home environment. In addition, 46% reported that their home was a resting environment, not a study environment.

One of the factors that most contributed to academic stress, according to a Chinese study⁽¹⁴⁾, was the abrupt transition and maintenance of online classes, associated with

concerns about academic progress and future. This was corroborated by another Chinese study⁽⁵⁾ whose majority of participants (89%) considered the transition to online classes the greatest challenge, pointing out concerns related to class quality, technical problems, online test application, and learning difficulty.

The difficulties related to academic life, such as lack of concentration on activities and learning, were associated with increased levels of somatization measures of mental health⁽⁴⁾. Moreover, it was visualized in a study by Bangladesh⁽¹¹⁾ that some participants reported technical issues (lack of power, decreased internet speed) and lack of electronic devices for classes in the virtual environment. Physical problems such as fatigue, headaches, back pain, visual fatigue, and earache were also mentioned.

Social distancing and isolation were the first global recommendations in dealing with COVID-19 infection, awakening throughout civil society feelings of loneliness, fear, and widespread anxiety. This was coupled with the fear occasioned by the high rate of viral transmission due to the rapidity, invisibility, and morbidity and mortality of COVID-19. There were also psychosocial challenges, including stigmatization and discrimination of infected people⁽²⁾.

These negative aspects of social distancing and isolation measures will present, in the long term, mental health sequelae in younger populations, as they are unpleasant and unfamiliar events for many who have experienced, during the isolated period, acute disturbances such as irritability, insomnia, emotional distress, mood disorders, depressive symptoms, fear and panic, anxiety and stress, as a result of financial worries, frustration and boredom, loneliness, lack of supplies, medications, restriction of routine daily activities, and reduced, or even total absence, of communication⁽²⁾.

Social isolation affects behavior and mental health, increasing levels of anxiety, stress, and depression, and it is difficult not to be led by emotional triggers set by the media through the bombardment of news about the situation in Brazil and worldwide⁽¹⁶⁾. Since this is a young population, it is possible to identify that the access to information in real time, associated with the restriction of contact with family and friends, contributed to intensify the negative feelings. Isolation, for young college students, brings more harm than one can imagine. Besides causing fragilities in mental health due to the distance from close people, it can also interfere with the quality of sleep⁽¹⁶⁾. It is possible that isolation causes other health problems, considering the bidirectional relationship between insomnia and anxiety, insomnia, and depression⁽²⁾.

The Internet proved to be a great ally in building and maintaining affection, despite not being able to completely heal emotions and feelings related to relationships. It was a resource adopted to mitigate moments in which everyone was isolated, a useful tool not only to keep people connected, in some way, to family and friends, but also to perform academic activities and have information by official means⁽¹⁶⁾.

The support network proved to be positive for students, as they could count on family and friends to re-signify feelings and even ease the pain - which requires adjustment and adaptation to the new condition⁽¹⁶⁾. The need for spiritual support was also present in the research, which indicates that faith proved to be an individual and collective protective strategy, being identified among only 0.8% (n=four) interviewees. Spirituality and religiosity were resources to strengthen and overcome this moment of pandemic⁽¹⁷⁾.

The pandemic of COVID-19 has worsened the economic crisis that already existed in Brazil. Unemployment and increased poverty indicate a dramatic reality, with physical implications related to stress and other health problems. A Spanish study⁽¹⁸⁾ indicates that the difficulties in access to health care in underserved populations (e.g., with low income or no health insurance) have been pointed out in the context of the pandemic not only in low- and middle-income countries, but also in high-income countries.

In the data from the present research, the number of participants whose family income

was compromised by the loss of the source of income decreased. This data is important because it indicates that those who suffered from the crisis brought on by the pandemic represent the smallest portion.

Unemployment can generate physical and psychological symptoms that, in the long run, depending on both the subject's specific situation and the economic, cultural, and social context, can lead to pathologies, such as alcoholism⁽¹⁹⁾.

It can be considered a limitation of this study that it is descriptive, which points to the need for analytical studies that can discuss the impact of these variables on students' lives.

CONCLUSION

From the results, it was evident that some sociodemographic variables, such as gender, age, family income, social distance and isolation, and support network, related to remote education, interfered with the mental health of university students.

Social distancing and isolation during the pandemic were key to controlling the infection by COVID-19, but presented a negative factor - worsening financial situation, and a positive one - students' adaptation to the new approaches for continuing education in the remote modality.

The development of studies on this topic aims to contribute to the practice of teachers and university managers, as well as to qualify the care of university students to reduce the impacts of the pandemic. This justifies its scientific and social relevance in times of social restrictions and modifications in the ways of teaching.

ACKNOWLEDGMENTS

We thank the Coordination for the Improvement of Higher Education Personnel (CAPES) for granting a post-graduation scholarship (001) to one of the authors.

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*Article extracted from the master's dissertation "Mental health of university students: sociodemographic characteristics and the new context of the COVID-19 pandemic". Universidade Federal de Pelotas, 2021.

Received: 03/08/2021 Approved: 22/12/2021

Associate editor: Luciana Puchalski Kalinke

Corresponding author: Dariane Lima Portela Universidade Federal de Pelotas – Pelotas, RS, Brasil E-mail: dariane.lportela@hotmail.com

Role of Authors:

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - Fagundes AT, Willrich JQ, Antonacci MH, Kantorski LP, Portela DL, Souza TT; Drafting the work or revising it critically for important intellectual content - Fagundes AT, Willrich JQ, Antonacci MH, Portela DL, Souza TT. All authors approved the final version of the text.

ISSN 2176-9133



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