Revista Contexto & Saúde
Editora Unijuí
Programa de Pós-Graduação em Atenção Integral à Saúde
ISSN 2176-7114 – v. 24, n. 49, 2024
http://dx.doi.org/10.21527/2176-7114.2024.49.14400
HOW TO CITE:
Larrosa JMF, Guedes A da C, Kantorski LP, Machado RA, Brum NA, Guerin MN. et al. Sociodemographic and mental health profile of female university students in the context of emergency remote education. Rev. Contexto & Saúde. 2024;24(49):e14400.

ORIGINAL ARTICLE

Sociodemographic and Mental Health Profile of Female University Students in the Context of Emergency Remote Education

Juana Maria Fraga Larrosa[1], Ariane da Cruz Guedes[2], Luciane Prado Kantorski[3]
Roberta Antunes Machado[4], Aline Neutzling Brum[5]
Michele Nunes Guerin[6], Juliana Antunes Souza[7]

Highlights:
(1) Prevalence of white women, aged between 18 and 24, without a partner, enrolled between the fourth and sixth semesters of health courses, during emergency remote education in the Covid-19 pandemic.
(2) Use of the PHQ-9, IDATE and BSI scales to measure aspects of mental health.
(3) Worrying results for depression, anxiety and suicidal ideation.

ABSTRACT

The Covid-19 pandemic has created challenges for the mental health of the academic community. This article aims to describe the sociodemographic and mental health profile of female university students in the south of the country in the context of emergency remote education. This descriptive study was conducted with 329 female university students between August 4 and September 12, 2020. Data was collected using a self-administered online questionnaire. For the sociodemographic profile, the questions included ethnicity, age, marital status, family income, undergraduate course, and semester. To characterize the mental health of the university students, levels of depression were measured using the PHQ-9 (Patient Health Questionnaire), the degree of anxiety using the IDATE (Inventory of Trait and State Anxiety), and suicidal ideation using the Beck Suicide Ideation Scale (BSI). Results and discussion: the students were primarily white (77.5%), aged between 18 and 24 (77.1%), without a partner (88.4%), and from economic classes E (43.3%) and D (28.3%). Most were from the health sector (70.2%) between the fourth and sixth semesters (40%). 85.4% were screened for depression, while 24% had high levels of trait anxiety (49.5% medium level, 26.4% low level). State anxiety levels were classified as high at 21.3%, medium at 51.4%, and low at 24%. A total of 25.5% had suicidal ideation. Conclusion: the study contributes to describing the population studied and identifying the prevalence of depression, anxiety, and suicidal ideation among female university students.

Keywords: mental health; pandemics; Covid-19; universities.

[1] Federal University of Pelotas – Ufpel. Stricto Sensu Postgraduate Program in Nursing. Pelotas/RS, Brazil. https://orcid.org/0009-0004-8284-6700
[2] Federal University of Pelotas – Ufpel. Stricto Sensu Postgraduate Program in Nursing. Pelotas/RS, Brazil. https://orcid.org/0000-0002-5269-787X
[3] Federal University of Pelotas – Ufpel. Stricto Sensu Postgraduate Program in Nursing. Pelotas/RS, Brazil. https://orcid.org/0000-0001-9726-3162
[4] Federal Institute of Education, Science and Technology of Rio Grande do Sul. Rio Grande/RS, Brazil. https://orcid.org/0000-0002-9087-6457
[5] Federal University of Rio Grande – Furg. Stricto Sensu Postgraduate Program in Nursing. Rio Grande/RS, Brazil. https://orcid.org/0000-0002-9686-9602
[6] Federal University of Pelotas – Ufpel. Stricto Sensu Postgraduate Program in Nursing. Pelotas/RS, Brazil. https://orcid.org/0009-0009-0150-9435
[7] Federal University of Pelotas – Ufpel. Stricto Sensu Postgraduate Program in Nursing. Pelotas/RS, Brazil. https://orcid.org/0009-0001-3181-6489

INTRODUCTION

During the Covid-19 pandemic, academic activities at universities were reorganized. Social distancing, necessary to reduce the spread of the new coronavirus, resulted in the closure of institutions and the cancellation of the academic semester. In the second half of 2020, remote teaching began at the Federal University of Pelotas (UFPel), known as the alternative semester. This type of teaching has brought changes and the need to adapt the teaching-learning process[1].

Mental health care came to the fore with the pandemic due to the breakdown in routine caused by the need for social distancing to contain the spread of the Covid-19 virus. The traumatic experiences associated with the infection or death of loved ones, the direct action of the virus on the central nervous system, and the country's economic crisis have boosted mental health demands[2].

Before the pandemic, some studies had already shown that the prevalence of common mental disorders in university students is higher than in the general population[3]. Anxiety, depression, and stress significantly impair daily activities, including those related to studies, directly impacting academic performance. This scenario has worsened during the pandemic.

Epidemiological data shows a higher prevalence of cases of anxiety4, with results of 26.1% for the mild level of state anxiety, 71.6% for the moderate level, and 2.3% for the high level. As for the level of trait anxiety, the same study[4] found 15.9% at the mild level, 77.3% at the moderate level, and 6.8% at the high level. Similar data about depression5 shows that 52.38% of students were screened for probable or possible depression. The academic world can affect the mental health of female students due to its demands, as well as the expectations generated by undergraduates[3].

In patriarchal societies such as Brazil, gender inequalities intersect with other dimensions, such as class, income, ethnicity, and race, which have been accentuated in the Covid-19 pandemic. Poverty, unemployment, informal work, and even fewer scientific publications during the pandemic were more prevalent among women[6]. The mental overload of many university students increased due to the accumulation of household chores and family care, and many were also heads of household[7].

OBJECTIVE

To describe the sociodemographic and mental health profile of female students at a university in southern Brazil in the context of emergency remote teaching during the Covid-19 pandemic.

METHODOLOGY

This study is a population-based cross-sectional survey of university students who attended the optional course Mental Health in Humanitarian Emergencies. The Faculty of Nursing of the Federal University of Pelotas, in Rio Grande do Sul, offered this curricular component during the Covid-19 pandemic in an alternative semester of 2020. Exceptionally, it took place online between June 1 and September 19, 2020.

Data was meticulously collected using an online questionnaire accessible via a Google Forms link, made available in the subject's virtual learning environment. A general invitation was sent to the students, and four new reinforcement invitations were sent each week, ensuring a comprehensive response to the online survey instrument. Backups of the completed questionnaires were made by the fieldwork supervisor, and quality control was carried out by checking the questions against the questionnaire.

The data was collected between August 4 and September 12, 2020. The survey included eligible students from the eight classes of the optional course Mental Health in Humanitarian Emergencies, totaling 536 students who attended the course until the end. Impressively, 464 students answered the questionnaire, resulting in a high response rate of 86%.

The inclusion criterion was being a student and regularly attending the course until the end. The exclusion criterion was dropping out or suspending the course.

The results presented in this study are based on a survey that aimed to include the entire population. The data collected from the 329 women who responded to the survey was selected for this study. All those who identified as "female" in response to the question on the questionnaire that asked for their "biological sex" were women, ensuring that the study was representative of the entire female population.

The instrument used in the survey was a structured questionnaire comprising 223 self-administered questions. For this article, questions were used to characterize the sociodemographics of the university students, including ethnicity, age, marital status, family income, degree course, and semester. Levels of depression and anxiety were measured using specific, self-administered scales presented in the instrument, as well as screening for suicidal ideation.

The PHQ-9 (Patient Health Questionnaire) scale was selected to verify the levels of depression in the research population. This is a simple questionnaire with self-answered questions, composed of nine questions that assess the presence of each symptom for an episode of significant depression described in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). The PHQ-9 results considered scores from 0 to 27 points. A study in the population of Pelotas showed that, by adopting the cut-off point of 9, it is possible to divide individuals into two groups, with one group made up of those who have not been screened for depressive disorder (0 to 9 points on the scale) and another group that identifies individuals screened for depressive disorder (above 9 points on the scale)[8].

To better understand the depressive symptoms of the population studied, this study presented the scale results according to the levels of depression observed, considering the cut-off points of 5, 10, 15, and 20, which represent mild, moderate, severe, and severe levels of depressive symptoms, respectively[9].

To measure the degree of anxiety in the sample, the STAI (State-Trait Anxiety Inventory) was used, consisting of two scales: state anxiety and trait anxiety. The scale that measures trait anxiety is made up of 20 statements in which the person describes how they feel, usually associated with individual issues and related to the propensity for anxiety, as well as tendencies to react in threatening situations. State anxiety is characterized by a transitory emotional state in which unpleasant feelings, consciously perceived apprehensions, and increased activity of the autonomic nervous system are perceived. This scale also has 20 statements about how the person feels at a given moment[10]. The scale has a maximum score of 80 points, with scores of 0 to 40 (mild anxiety), 41 to 60 (medium anxiety), and over 60 (high anxiety) for the Brazilian context[11].

To assess the presence of suicidal ideation in the study population, the Suicidal Ideation Scale developed by Beck was used. The Beck Scale for Suicide Ideation (BSI) is a self-report version of another clinical instrument developed at the University of Pennsylvania and used since 1970 to investigate suicidal ideation in psychiatric patients. Initially with 30 items, after a pilot study with clinical patients suspected of having suicidal ideation, it was reformulated into a 19-item clinical assessment scale, with Likert-type alternatives ranging from 0 to 2 points, to investigate the presence of suicidal ideation as well as the severity of suicidal ideas, plans, and desires. For the creators of the BSI, it aims to quantify the intensity of awareness of current suicidal intent, dividing suicidal behavior into dimensions. Identifying the mere presence of suicidal ideation does not reveal the degree of intentionality. It does

not have a specific cut-off point, but moderate to high creativity is considered present in patients with a score greater than or equal to 6[12].

Descriptive analysis was used to present frequency measurements of the variables selected by the proposed objective. Descriptive analysis is the type of data analysis that helps describe, show, or summarize the data collected constructively so that patterns can be observed. It is one of the most critical stages in statistical data analysis, as it provides a conclusion about the data distribution and allows similarities between variables to be identified. In descriptive analysis, knowing how often a particular event or response is likely to occur is essential. The main objective of the frequency measures is to make a count or percentage present in the results of this study.

The project was approved by the Research Ethics Committee of the Faculty of Medicine of the Federal University of Pelotas, CAAE No. 34510720.7.0000.5317, through Opinion 4.186.982 of August 1, 2020. As this was an online questionnaire, all participants agreed to take part in the study by signing a Free and Informed Consent form. All the ethical aspects set out in Resolution 466/12 of the National Health Council (CNS, in Portuguese) were complied with.

RESULTS

Table 1 shows the sociodemographic profile (ethnicity, age, marital status, family income, course, and semester) of the female university students who participated in the survey.

Table 1 – Sociodemographic profile of female university students, 2020, Pelotas/RS-Brazil (n: 329)

	n	%
Ethnicity		
White	255	77.5
Black	23	7.0
Brown or mixed-race	49	14.9
Yellow	2	0.6
Age		
18-24 years old	254	77.1
25-29 years	47	14.3
>30 years	27	8.2
Ignored	1	0.4
Marital status		
Without partner	291	88.4
With partner	38	11.6
Family income		
Class E	143	43.3
Class D	93	28.3
Class C	69	20.9
Class B	21	6.3
Class A	3	0.9
Ignored	38	11.6

Course		
Nursing	67	20.4
Medicine	83	25.2
Psychology	36	10.9
Occupational Therapy	15	4.6
Dentistry	30	9.1
Literature	11	3.3
Education	10	3.0
Agronomy	4	1.2
Other courses	72	22
Unknown	1	0.3
Semester		
1-3	114	34.7
4-6	132	40.0
>7	82	24.9
Unknown	1	0.4

Source: Survey data, 2020

Regarding ethnicity, 77.5% of the women interviewed were self-declared white, 14.9% self-declared brown or mixed race, 7% self-declared black, and 0.6% self-declared yellow.

77.1% of the respondents were between eighteen and twenty-four years old, 14.3% were between twenty-five and twenty-nine years old, and 8.2% were over thirty years old.

The women surveyed who live without a partner represent 88.4% of the total, while those with a partner represent 11.6%.

Regarding the income declared by the interviewees, 43.3% of the respondents are classified in economic class E, followed by 28.3% belonging to class D. 20.9% of the students remain in class C, 6.3% are in class B, and 0.9% of the interviewees have an income corresponding to economic class A. Concerning declaring income, the study highlights that 11.6% of the population interviewed ignored this question.

When asked which course they belonged to, 25.2% of the interviewees answered that they were studying Medicine, 20.4% were studying Nursing, 10.9% were studying Psychology, 9.1% were studying Dentistry, 4.6% were studying Occupational Therapy, 3.3% were studying Languages, 3.0% were studying Pedagogy, 1.2% were studying Agronomy, and 22% were studying other courses offered by the university.

As for the semester they attended, 40% of the students who responded to the survey were studying between the fourth and sixth semesters, 34.7% were studying between the first and third semesters, and 24.9% were studying in the seventh semester or later.

Table 2 – Depression, anxiety and suicidal ideation in female university students, 2020, Pelotas-RS-Brazil (n: 329)

	n (%)	**n (%)**
Depression	**Yes**	**No**

Levels of depression			48 (14.6)
Mild	(5 to 9 points)	94 (28.6)	
Moderate	(10 to 14 points)	88 (26.7)	
Severe	(15 to 19 points)	57 (17.3)	
Very severe	(20 to27 points)	42 (12.8)	
Type of Anxiety		**Trait**	**Condition**
Levels of Anxiety			
Low	(20 to 40 points)	87 (26.4)	90 (27.4)
Medium	(41 to 60 points)	163 (49.5)	169 (51.4)
High	(61 to 80 points)	79 (24.0)	70 (21.3)
Suicidal ideation		**Sim**	**No**
Not present	(0 to5 points)		245 (74.5)
Present	(6 to19 points)	84 (25.5)	

Source: Survey data, 2020

Of all those interviewed, 85.4% were screened for depression according to the PHQ-9 scale, while 14.6% of the respondents did not show the same result. Of the students screened for depression, 28.6% had a mild level, 26.7% had a moderate level, 17.3% had a severe level, and 12.8% of the total survey participants had a very severe level of depression.

According to the STAI scale, trait anxiety levels were classified as medium for 49.5% of the interviewees, low for 26.4% of the interviewees, and high for 24% of the students who responded to the survey. State anxiety levels were classified as medium for 51.4% of the students who took part in the survey, 27.4% had a low level of state anxiety, and 21.3% of the participants had a state anxiety index classified as high.

Concerning suicidal ideation, 25.5% of the students who took part in the survey were screened for suicidal ideation, according to an analysis of the questionnaires, which refers to 84 women, a worryingly high number. 74.5% of the students did not identify with this characteristic (as screened by the BSI scale).

DISCUSSION

The results show that, as in other studies in Brazil, the predominant ethnic group among undergraduate students is white, as indicated by a multicenter study[13] in which white students accounted for 44.8%. However, this reality is contrary to the latest higher education census[14], which found, for the first time, that most undergraduate students (51.2%) in Brazil are self-declared black.

In our survey, most respondents belonged to courses still considered elitist today (medicine, nursing, psychology, dentistry), whose access and permanence reflect an unequal trajectory for most Brazilian youth[15].

Another essential aspect to highlight regarding race is that the highest percentage of black students is concentrated in the north and northeast regions of the country[15]. In addition, during the pandemic, inequalities in receiving and consequently engaging in academic activities for higher education were closer in the color groups. Still, the white group maintained a slight advantage[15], corroborating our results.

Concerning age, as identified in another article[16], most of the undergraduate students who took part were aged between 18 and 29, corresponding to 86% of the sample. Regarding marital status, this study is in line with another [17], which found that 76.4% of the students were single.

Regarding family income, articles show that classes E, with an income of up to two minimum wages, and D, with an income of between two and four minimum wages, are the most prevalent[17]. The student's income is relevant to discuss since the economic factor directly influences anxiety levels, as shown by the same reference[17], which shows that the income range of 1 to 2 minimum wages has higher levels of anxiety.

Regarding the course the participants took, the greater concentration in the health area may reflect the relationship between careers and the female gender. This correlation was reflected in a study[18], which found a higher probability of men in the exact sciences and women in professions linked to teaching and care.

According to data from another study[19], health courses, considered care professions, have the most female students: nursing, with 90.9% of women; physiotherapy, with 83.7%; nutrition, with 88.1%; and biomedicine, with 75.6%. In engineering courses, women are in the minority, such as production engineering, with 42.6% of female students; mechanical engineering, 11.5%; and metallurgical engineering, 37.6%.

Research has shown that, even before the Covid-19 pandemic, there was an increased prevalence of depression, anxiety, and suicidal ideation among university students when compared to the general population[20].

It has been shown that 15% to 25% of university students develop some mental disorder during their undergraduate studies, with depression being one of the most prevalent[16]. These results reaffirm that university students are a vulnerable population that deserves further study.

This study found that 30.1% of female university students were screened for moderate to severe episodes of depression and 28.6% for mild episodes. A survey carried out in 2017[21], also in southern Brazil, using the PHQ9, found that 32% of university students had a major depressive episode, corroborating our findings.

Considering the Brazilian context, the prevalence found does not show an increase during the pandemic. However, this result represents an increase when compared to that of other countries, such as Australia, whose prevalence of depressive episodes is 7.9%[22]; England, with a prevalence of severe depressive episodes of 12.7% and 17.7% moderate[23]; and the United States, with a prevalence of 37.7% for mild to moderate depressive episodes and 4.4% for very severe ones[24].

On the other hand, 85.4% of the university students in our study were screened to some degree for depressive episodes, a higher prevalence than that found in other studies carried out during the Covid-19 pandemic in countries such as Greece and the United States - 48.5% and 48.14% of university students, respectively, had moderate to very severe levels of depression[25-26].

In Japan, a study that followed 985 university students for 6 months since the start of the Covid-19 pandemic, using the PHQ9, found an increase from 11.5% to 16.6% and from 5.8% to 11.8%, respectively, among participants with moderate depressive symptoms and suicidal ideation[27].

The prevalence of suicidal ideation measured using the BSI scale, in our study was 25.5%, well above the rates found in other articles. Unlike depression, in which there has already been research with university students using the PHQ 9, no articles were found on suicidal ideation in this population using the BSI scale.

A survey carried out in the United States between 2017 and 2018 found 6% of university students in the health area reported suicidal ideation[28].

A systematic review[29] of 24 cross-sectional studies (n = 21,002) carried out in 15 countries found a prevalence of 11.1% of suicidal ideation in university students, specifically in the health sector.

Stressful life events, such as the death of loved ones, diagnosis of a severe illness, financial difficulties, unemployment, and forced migration, among other factors that were present in the Covid-19 pandemic scenario, are conditions that increase risk, as they are considered precipitating factors for suicidal behavior, of which suicidal ideation is one aspect, especially when experienced by people with a pre-existing mental disorder or bereaved[30].

The Covid-19 pandemic also raised the need to question the gender paradox in suicidal behavior, given the increase in suicide deaths among young women in Brazil and abroad during that period. Although men die more, women lead the way in suicide ideation and attempts, denoting the vulnerability of their condition because of exposure to various types of violence in a patriarchal society crossed by masculinity, sexism, and structural racism[31].

Concerning anxiety, the data found on the state of anxiety is particularly noteworthy, considering that it refers to the situation the person is currently experiencing, also because it is understood that the challenges and insecurities generated by the context of the Covid-19 pandemic could imply anxious symptoms, albeit transitory.

In this study, the average anxiety levels found were 51.4%; high, 21.3%; and low, 27.4%. These rates were considered high when compared to another study carried out with 419 first-year students (aged 18 to 20) at a large public university in North Carolina (United States), which found a prevalence of moderate to very severe anxiety of 25.3% four months after the start of the Covid-19[32] pandemic.

In this article, the average trait anxiety scores were 49.5%, low at 26.4%, and high at 24% of female university students. A study carried out in Spain[33] with 427 university students found that 89.9% had high levels of trait anxiety, and 83.8% of the high levels of state anxiety were in women. In a Brazilian study[34], 30.3% had severe levels of state anxiety, and 47.4% of female university students had high levels of trait anxiety.

The usefulness of standardized and validated scales and instruments should be highlighted, as they help to measure mental health conditions in the research population. As helpful as the PHQ 9 is, for example, and it includes questions related to loss of interest, tiredness, sadness, and lack of energy, symptoms that serve as diagnostic criteria for depression in the DSM, this and other instruments do not have diagnostic capacity. It is, therefore, necessary to take a cautious look at the data and the discussion presented.

In addition to this limitation, it should be noted that there are different standardized instruments for screening anxiety, depression, and suicidal ideation, which makes it difficult to compare results between studies. Another significant limitation of this study is the scarcity of research with specific data for the female university student population on depression, suicidal ideation, and anxiety.

CONCLUSIONS

The results show that most women are white, aged between 18 and 24, single, with a family income belonging to class E, from health courses, and in their fourth to sixth semesters.

It was found that most of the women taking part were screened for anxiety and depression, which is in line with other studies carried out at the same time.

In the follow-up for suicidal ideation, more participants were detected than in other studies, which is worrying.

Considering their responsibility for the health of the population, as well as quality scientific production, these women identified with suicidal ideation received therapeutic listening services provided by the Mental and Collective Health Group of the UFPel Faculty of Nursing.

We believe that the results presented met our objective to describe the sociodemographic and mental health profile of female students at a university in the south of the country in the context of emergency remote teaching during the Covid-19 pandemic.

We also found, in line with studies before the social isolation resulting from the pandemic, that many aspects of fragile mental health had already been detected in university students. However, considering our sample, we found worrying results for anxiety, depression, and suicidal ideation in a context that we are interested in intervening to transform.

We also found, in line with studies before the social isolation resulting from the pandemic, that many aspects of fragile mental health had already been detected in university students. However, considering our sample, we found worrying results for anxiety, depression, and suicidal ideation in a context that we are interested in intervening to transform.

REFERENCES

[1] Fagundes AT, Willrich JQ, Antonacci MH, Kantorski LP, Portela DL, Souza TT. Universitários no contexto da COVID-19: perfil, comportamentos e atividades acadêmicas. Cogitare Enferm. 2022;27. DOI: http://dx.doi.org/10.5380/ce.v27i0.82306

[2] Pereira MD, Oliveira LC de, Costa CFT, Bezerra CM de O, Pereira MD, Santos CKA dos, Dantas EHM. Pandemia de COVID-19, isolamento social, consequências na saúde mental e estratégias de enfrentamento: uma revisão integrativa. Res. Soc. Dev. 2020;9(7):e652974548. Available from: https://rsdjournal.org/index.php/rsd/article/view/4548

[3] Padovani, R da C *et al*. Vulnerabilidade e bem-estar psicológicos do estudante universitário. Rev. Bras. ter. Cogn. 2014;10(1):02-10. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1808-56872014000100002&lng=pt&nrm=iso

[4] Silva, TKC *et al*. Comparação de rastreamento e estado de ansiedade entre estudantes de enfermagem. Saúde Colet. 2021;11(60):4762-4773. Available from: https://revistasaudecoletiva.com.br/index.php/saudecoletiva/article/view/1136

[5] Melo H, Mattana B, Rios J, Nazar T. Indicativos de ansiedade, estresse e depressão em professores e estudantes no contexto da pandemia. Revista PsicoFAE: Pluralidades em Saúde Mental. 2022;11(1):95-104. Available from: https://revistapsicofae.fae.edu/psico/article/view/383

[6] Barradas, MS; Pesquisa da UFRGS revela impacto das desigualdades de gênero e raça no mundo acadêmico durante a pandemia. UFRGS, 2020. Available from: https://www.ufrgs.br/ciencia/pesquisa-da-ufrgs- revela-impacto-das-desigualdades-de-genero-e-raca-no-mundo-academico-durante-a-pandemia/

[7] Canavêz F, Farias CP e Luczinski, GF. A pandemia de Covid-19 narrada por mulheres: o que dizem as profissionais de saúde? Saúde em Debate. 2021;45(spe1):112-123. DOI: https://doi.org/10.1590/0103-11042021E109

[8] Santos IS. *et al*. Sensibilidade e especificidade do Patient Health Questionnaire-9 (PHQ-9) entre adultos da população geral. Cad. Saúde Pública. 2013;29(8):1533-1543. DOI: https://doi.org/10.1590/0102-311X00144612

[9] Kroenke K *et al*. The patient health questionnaire somatic, anxiety, and depressive symptom scales: a systematic review. Gen Hosp Psychiatry. 2010;32(4):345-359. DOI: https://doi.org/10.1016/j.genhosppsych.2010.03.006

[10] Fioravanti ACM, Santos LF, Maissonette S, Cruz APM, Landeira-Fernandez J. Avaliação da estrutura fatorial da Escala de Ansiedade – Traço do IDATE. Aval. Psicol. 2006;5(2):217-224. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1677-04712006000200011&lng=pt.

[11] Biaggio AMB, Natalício L, Spielberger CD. Desenvolvimento da forma experimental em português do Inventário de Ansiedade Traço-Estado (IDATE) de Spielberger. Arq. Bras. Psicol. Apl. 1977;29(3):31-44. Available from: http://bibliotecadigital.fgv.br/ojs/index.php/abpa/article/view/17827

[12] Brito MEM, Goes LSP, Costa VB, Gurgel MGI, Alves MDS, Timbó MA, et al. Tentativa de suicídio por queimadura: ideação suicida e desesperança. Rev. Bras. Queimaduras. 2013;12(1):30-36. Available from: http://www.rbqueimaduras.com.br/details/141/pt-BR/tentativa-de-suicidio-por-%20queimadura--ideacao-suicida-e-desesperanca

[13] Aguiar KLA, Vieira MA, De Domenico EBL. Analysis of evaluations performed by undergraduate nursing alumni: a Brazilian multicenter study. Rev. Esc. Enferm. USP. 2021;55:e20200084. DOI: https://doi.org/10.1590/1980-220X-REEUSP-2020-0084.

[14] FONAPRACE/ANDIFES. V Pesquisa Nacional de Perfil Socioeconômico e Cultural dos Graduandos das IFES. Brasília: FONAPRACE/ANDIFES; 2019. Available from: V Pesquisa Nacional de Perfil Socioeconômico e Cultural dos (as) Graduandos (as) das IFES – 2018 – Andifes.

[15] VENTURINI, Anna Carolina; LIMA, Márcia et al. As desigualdades educacionais e a Covid-19. Informativos desigualdades raciais e Covid-19, AFRO-CEBRAP, n. 3, nov. 2020. Available from: Informativo #3 As desigualdades educacionais e a Covid-19- Afrocebrap

[16] Santos LR; Veiga FH; Pereira A. Sintomatologia depressiva e percepção do rendimento académico no estudante do ensino superior. 12º Colóquio de Psicologia, Educação, Aprendizagem e Desenvolvimento: Olhares Contemporâneos através da Investigação. 2012:1656-1666. Available from: https://repositorio.ul.pt/bitstream/10451/6838/1/Sint_depressiva_ensino_superior.pdf

[17] Ribeiro LS, Bragé EG, Ramos DB, Fialho IR, Vinholes DB, Lacchini AJ. Efeitos da pandemia de COVID-19 na saúde mental de uma comunidade acadêmica. Acta Paul Enferm. 2021;34:eAPE03423. DOI: https://doi.org/10.37689/acta-ape/2021AO03423

[18] Carvalhaes, F., & Ribeiro, C. A. C. Estratificação horizontal da educação superior no Brasil: Desigualdades de classe, gênero e raça em um contexto de expansão educacional. Tempo Social, 2019;31(1):195-233. DOI: https://doi.org/10.11606/0103-2070.ts.2019.135035

[19] Vieira A, Monteiro PRR, Carrieri ADP, Guerra VDA, Brant LC. Um estudo das relações entre gênero e âncoras de carreira. Cad EBAPEBR. 2019;17(3):577-589. DOI: https://doi.org/10.1590/1679-395172911

[20] Mayer FB et al. Factors associated to depression and anxiety in medical students: a multicenter study. BMC medical education. 2016;16(1):1-9. Available from: https://10.1186/s12909-016-0791-1

[21] Flesch BD, Houvèssou GM, Munhoz TN, Fassa A. Episódio depressivo maior entre universitários do sul do Brasil. Rev. Saúde Pública. 2020;54(11). Available from: https://www.scielo.br/j/rsp/a/TSNPmhCBLVVdjHWTtdBC54q/?format=pdf&lang=pt

[22] Farrer LM, Gulliver A, Bennett K, Fassnacht DB, Griffiths KM. Demographic and psychosocial predictors of major depression and generalised anxiety disorder in Australian university students. BMC Psychiatry. 2016;16(1):241. 2016. DOI: https://doi.org/10.1186/s12888-016-0961-z

[23] Honney K et al. Comparison of levels of depression in medical and non-medical students. The clinical teacher, 2010; 7(3):180-184. DOI: https://doi.org/10.1111/j.1743-498X.2010.00384.x

[24] Leppink EW, Lust K, Grant JE. Depression in university students: associations with impulse control disorders. International journal of psychiatry in clinical practice. 2016; 20(3):146-150. Available from: https://doi.org/10.1080/13651501.2016.1197272

[25] Giannopoulou I et al. Adding stress to the stressed: Senior high school students' mental health amidst the COVID-19 nationwide lockdown in Greece. Psychiatry Research. 2021;295:113560. DOI: https://doi.org/10.1016/j.psychres.2020.113560

[26] Wang X ***et al***. Investigating mental health of US college students during the COVID-19 pandemic: cross-sectional survey study. Journal of medical Internet research. 2020; 22(9):e22817. Available from: https://www.jmir.org/2020/9/e22817/

[27] Nomura K ***et al.*** Longitudinal survey of depressive symptoms among university students during the COVID-19 pandemic in Japan. Front Psychol.2022;13:863300. DOI: https://doi.org/10.3389/fpsyg.2022.863300

[28] Hoying ***J et al. Prevalence*** and correlates of depression, anxiety, stress, healthy beliefs, and lifestyle behaviors in first-year graduate health sciences students. Worldviews on Evidence-Based Nursing. 2020;17(1):49-59. DOI: https://doi.org/10.1111/wvn.12415

[29] Rotenstein LS et al. Prevalence of depression, depressive symptoms, and suicidal ideation among medical students: a systematic review and meta- analysis. Jama. 2016;316(21):2214-2236. DOI: https://doi.org/10.1001/jama.2016.17324

[30] BRASIL. Ministério da Saúde. Secretaria de Vigilância em Saúde e Ambiente. Panorama dos suicídios e lesões autoprovocadas no Brasil de 2010 a 2021. Bol. Epidemiológico 4. 2024:55:1-18. Available from: Boletim Epidemiológico – Panorama dos suicídios e lesões autoprovocadas no Brasil de 2010 a 2021 – ABEPS

[31] Dantas ESO et al. Suicídio de mulheres no Brasil: necessária discussão sob a perspectiva de gênero. Ciência & Saúde Coletiva, 28(5):1469-1477, 2023. Available from: https://www.scielosp.org/pdf/csc/2023.v28n5/1469-1477/

[32] Fruehwirth JC, Biswas S, Perreira KM. The Covid-19 pandemic and mental health of first-year college students: Examining the effect of Covid-19 stressors using longitudinal data. PLoS ONE. 2021; 16(3). Available from: https://pubmed.ncbi.nlm.nih.gov/33667243/

[33] Alemany-Arrebola I., Rojas-Ruiz G., Granda-Vera J & Mingorance-Estrada AC. Influence of COVID-19 on the Perception of Academic Self-Efficacy, State Anxiety, and Trait Anxiety in College Students. Frontiers in Psychology. 2020; 11. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7586314/

[34] Andrade AM de, Pires EU. Avaliação dos níveis de ansiedade dos estudantes da UFRRJ. Trabalho (En) Cena. 2020;5(1):248-268. Available from: https://sistemas.uft.edu.br/periodicos/index.php/encena/article/view/7294

Submitted: May 2, 2023
Accepted: March 25, 2024
Published: September 18, 2024

Authors contributions

Juana Maria Fraga Larrosa: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Validation; Visualization; Writing – original draft; Writing – review & editing.

Ariane da Cruz Guedes: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing.

Luciane Prado Kantorski: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Project administration; Resources; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing.

Roberta Antunes Machado: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Validation; Visualization; Writing – original draft; Writing – review & editing.

Aline Neutzling Brum: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Validation; Visualization; Writing – original draft; Writing – review & editing.

Michele Nunes Guerin: Visualization; Writing – original draft; Writing – review & editing.

Juliana Antunes Souza: Visualization; Writing – original draft; Writing – review & editing.

All authors have approved the final version of the text.

Conflict of interest: There is no conflict of interest.

There is no funding

Corresponding author
Juliana Antunes Souza
Federal University of Pelotas – UFPel
Stricto Sensu Postgraduate Program in Nursing.
R. Gomes Carneiro, 01 – Balsa, Pelotas/RS, Brazil. ZIP CODE 96010-610
juliana.antunes@ufpel.edu.br

Editor: Christiane de Fátima Colet. PhD
Editor-in-chief: Adriane Cristina Bernat Kolankiewicz. PhD