Impacts of the second wave of Covid-19 in Brazil: a cross-sectional study with nursing students

Impactos da segunda onda da Covid-19 no Brasil: um estudo transversal com acadêmicos de enfermagem

Impactos de la segunda ola de Covid-19 en Brasil: un estudio transversal con académicos de enfermería

Ana Lúcia Basilio Carneiro
ORCID: https://orcid.org/0000-0003-2035-8328
Universidade Federal da Paraíba, Brazil
E-mail: analucarneiro@gmail.com
Semírames Cartonilho de Souza Ramos
ORCID: https://orcid.org/0000-0001-8370-5994
Universidade Federal da Paraíba, Brazil
E-mail: semiramesramosmoga@gmail.com
Jaqueline Nascimento dos Santos
ORCID: https://orcid.org/0000-0002-9622-2913
Universidade Federal da Paraíba, Brazil
E-mail: jnds@academico.ufpb.br
Lincoln Basilio Alves
ORCID: https://orcid.org/0000-0001-8937-6546
Universidade do Estado do Amazonas, Brazil
E-mail: lincolnbasilio1@gmail.com
Lindair Alves da Silva
ORCID: https://orcid.org/0000-0001-8380-3877
Hospital de Emergência e Trauma Senador Humberto Lucena, Brazil
E-mail: alveslindair@gmail.com
Cíntia Bezerra Almeida Costa
ORCID: https://orcid.org/0000-0002-1179-5852
Universidade Federal da Paraíba, Brazil
E-mail: cintia.costa@academico.ufpb.br
Orácio Carvalho Ribeiro Júnior
ORCID: https://orcid.org/0000-0003-3212-9936
Universidade Estadual do Pará, Brazil
E-mail: oracio.junior@uepa.br

Abstract
Introduction: The worldwide prevalence of mental disorders points to the need for adequate and urgent holistic responses. The disconnection between science, health and politics before and during the pandemic of COVID-19 undermined the actions and reorganization of the reception and support system, especially for the most vulnerable, women and young people. Objective: To verify the prevalence of anxious, depressive and hopelessness symptoms in academics of a public university during the pandemic period. Methodology: This is an observational, cross-sectional study carried out with 128 undergraduate nursing students from a public university in the state of Paraíba, Brazil from January to March 2021. The recruitment was online and the data collection instrument was prepared on Google Forms with sociodemographic, health and coping strategies questions. Results: The study showed a majority of single female academics with a positive self-perception of health. Nervousness, autonomic symptoms and fear stood out among the anxious symptoms. Regarding depressive symptoms, most reported self-criticism, irritability, fatigue, pessimism and sleep disorders. Positive expectations regarding the future were prevalent in the sample. Conclusion: The COVID-19 pandemic has challenged the health of the academic community. The students experienced the second wave with psycho-emotional reactions, but also with various coping strategies, mainly related to affective support from family and friends and professional support. The results show the need to investigate daily life, its stressors and risk factors to provide adequate support to promote and maintain the health of these students by approaching protective factors.
Keywords: Fear; Anxiety; Depression; Hopelessness; Suicidal idea.

Resumo

A pandemia da COVID-19 impactou o cotidiano da população mundial, impôs uma nova rotina e desafiou o equilíbrio físico e mental dos estudantes. O contexto pandêmico exigiu um (re)ajustamento rápido às novas demandas pessoais e acadêmicas. Tudo isso, associado aos fatores biopsicossociais e vulnerabilidade pessoal pode resultar em transtornos mentais com desfecho, às vezes, fatal. Objetivo: Verificar o estado de saúde e a prevalência de sintomas ansiosos, depressivos e de desesperança em estudantes de Enfermagem durante a segunda onda da COVID-19 no Brasil. Metodologia: Trata-se de um estudo transversal realizado com 128 estudantes de uma instituição pública do estado da Paraíba, Brasil entre janeiro e março de 2021. O recrutamento e coleta de dados foi *online*. O instrumento de coleta de dados foi elaborado no *Google Forms* com questões sociodemográficas, de saúde e estratégias de enfrentamento. Resultados: O estudo evidenciou maioria dos acadêmicos como do sexo feminino, solteiros e com autopercepção positiva da saúde. Nervosismo, sintomas autonômicos e medo destacaram-se entre os sintomas ansiosos. Em relação aos sintomas depressivos, a maioria relatou autocrítica, irritabilidade, fadiga, pessimismo e transtorno do sono. Expectativas positivas em relação ao futuro foi prevalente na amostra. Conclusão: Os estudantes vivenciaram a segunda onda com reações psicoemocionais, mas também com várias estratégias de enfrentamento, principalmente relacionadas ao suporte afetivo de familiares e amigos e suporte profissional. Os resultados mostram a necessidade de investigar o cotidiano, seus estressores e fatores de risco para prover suporte adequado à promoção e manutenção da saúde desses universitários, aproximando-os dos fatores protetores.

Palavras-chave: Medo; Ansiedade; Depressão; Desesperança; Ideia suicida.

Resumen

La pandemia de COVID-19 impactó la vida cotidiana de la población mundial, impuso una nueva rutina y desafió el equilibrio físico y mental de los estudiantes. El contexto de pandemia exigió una rápida (re)adaptación a las nuevas exigencias personales y académicas. Todo ello, asociado a factores biopsicosociales y de vulnerabilidad personal, puede dar lugar a trastornos mentales con desenlace, en ocasiones, mortal. Objetivo: Verificar el estado de salud y la prevalencia de síntomas ansiosos, depresivos y de desesperanza en estudiantes de Enfermería durante la segunda ola de COVID-19 en Brasil. Metodología: Este es un estudio transversal realizado con 128 estudiantes de una institución pública en el estado de Paraíba entre enero y marzo de 2021. El reclutamiento y la recolección de datos fue en línea. El instrumento de recolección de datos fue elaborado en Google Forms con estrategias sociodemográficas, de salud y de afrontamiento. Resultados: El estudio mostró que la mayoría de los estudiantes eran del sexo femenino, solteros y con una autopercepción positiva de la salud. Entre los síntomas ansiosos se destacaron el nerviosismo, los síntomas autonómicos y el miedo. En cuanto a los síntomas depresivos, la mayoría reportó autocrítica, irritabilidad, fatiga, pesimismo y trastorno del sueño. Las expectativas positivas sobre el futuro prevalecieron en la muestra. Conclusión: Los estudiantes vivieron la segunda ola con reacciones psicoemocionales, pero también con diversas estrategias de afrontamiento, principalmente relacionadas con el apoyo afectivo de familiares y amigos y apoyo profesional. Los resultados muestran la necesidad de investigar el cotidiano, sus estresores y factores de riesgo para brindar un apoyo adecuado a la promoción y mantenimiento de la salud de estos universitarios, acercándolos a los factores protectores.

Palabras clave: Miedo; Ansiedad; Depresión; Desesperación; Idea suicida.

1. Introduction

For decades national and international bodies have pointed to the increasing prevalence of mental disorders and the need for appropriate and urgent holistic responses. The disconnection between science, health, and politics before and during the pandemic of COVID-19 undermined the actions and reorganization of the care and support system (PAHO, 2017; Tausch et al., 2022; WHO, 2017, 2020, 2021a, 2021b), especially for the most vulnerable.

Common mental disorders follow its worldwide upward curve and will cause several damages to the society in the coming years, especially, after the pandemic scenario, which left a history of physical and mental illnesses and their sequels, added to losses in all aspects of life, smoking and alcohol consumption. All of this is associated with individual, socio-economic, and biological factors, to previous psychiatric and neurological disorders and lack of access to health services may result in worsening of pre-existing pathologies, disability and death (Gobbi et al., 2020; Tausch et al., 2022; WHO, 2021b).

In the pandemic context, the psycho-emotional reactions added to the overload of activities and responsibilities altered the emotional balance and generated dysfunctional interpretations of the world and the future with negative impacts on mental functioning. In Brazil, the prevalence of depression and anxiety during the pandemic reached 61% and 44%, respectively (Kam et al., 2019; Lima et al., 2013; Tausch et al., 2022).

In this scenario of exhausting routine, are the higher education academics, especially those in the health area, where responsibilities are sometimes greater, as it involves more refined knowledge to prevent, care for and maintain the health and life of other beings (Carvalho Silva et al., 2021; Kam et al., 2019). This is the reality of academic and professional life, and when associated with other biopsychosocial factors it triggers an imbalance in physical and mental well-being, and in turn, can result in anxiety disorders and/or depression and hopelessness with sometimes fatal outcomes.

Mental disorders affect everyday life, with procrastination and absenteeism and consequently generate an accumulation of tasks and a decrease in productive output. The discouraged and hopeless student for not being able to fulfil his duties, and upon realising the negative impact on his life and academic performance he enters into mental distress (Cardoso et al., 2019).

The COVID-19 pandemic has affected the daily lives of people around the world, whether by isolation and social distancing, activity restrictions, loss of loved ones and socio-economic losses, imposing readaptation to the new life routine and causing emotional imbalances or exacerbation of already existing disorders. Psychological suffering increases in the face of uncertainty, fear and insecurity about the virus and this new disease and its consequences (Asmundson & Taylor, 2020; Maia & Dias, 2020; Naguy et al., 2020).

In addition to all this, the pandemic context brought another challenge to mental balance when the need to (re)adapt academic life with the implementation of distance or hybrid education. This new scenario required students and teachers to adjust quickly to new teaching methods and resources, often without having mastery of Information and Communication Technology (ICT) and the necessary conditions, such as adequate equipment and quality internet access (Vieira et al., 2020). And this represented, for many, a further source of stress.

The findings of this study have the potential to yield information about the psycho-emotional impact of COVID-19 on students and contribute to the design of support, prevention and monitoring of this community, as well as strategies to prevent progression, complications and incapacities in this context.

The study aimed to verify the prevalence of physical and mental signs and symptoms of the pandemic in nursing students of a public university in the state of Paraíba and their respective coping and support strategies.

2. Methodology

This is an observational, cross-sectional study, using convenience sample composed of 128 undergraduate Nursing students enrolled in the Federal University of Paraíba (UFPB) between the months of January and March 2021, the period of the second wave of the COVID-19 pandemic in Brazil and consequent social distancing and isolation, home office and homeschooling (Pereira et al., 2018; Vieira & Hossne, 2020). The present research is part of the umbrella project **"Students' Health Status: perception, self-report and clinical trial with integrative and complementary health practices"** approved by the Research Ethics Committee of the CCS/UFPB (License No. 2,784,383; CAAE 92087118.6.0000.5188) and all volunteers were informed about the research objectives and data confidentiality and signed an Informed Consent Form.

For the sample selection, it was considered as inclusion criteria active students in the course, with a minimum age of 18 years. Students under 18 years of age, with difficulty in accessing the online forms or with suspended enrolment were excluded from the sample.

The form for data collection was prepared on the Google Forms platform with questions for sociodemographic characterization of the sample, health history and symptoms of anxiety, depression and hopelessness. The students were also asked about the coping strategies and resources used during the pandemic. In the pandemic context the focus of the research was on the prevalence of self-reported physical and mental signs and symptoms, therefore used and adapted questions from the Beck inventories. The Beck Depression Inventory (BDI) is a psychometric self-report scale related to depression. The items

refer to sadness, pessimism, feelings of failure, dissatisfaction, guilt, punishment, self-loathing, self-accusations, suicidal ideas, crying, irritability, social withdrawal, indecision, change in self-image, difficulty working, changes in sleep, fatigability, loss of appetite, weight loss, somatic concerns and loss of libido (Cunha, 2017).

Due to the period of distancing and social isolation imposed by the COVID-19 pandemic, recruitment was carried out via E-mail and WhatsApp. Aware that data collection could bring to mind lived experiences and cause embarrassment or cause psychic suffering, research volunteers were instructed to answer the form in a peaceful, private environment and, if necessary, to seek care services.

The data were subjected to descriptive statistical analysis to synthesis the results: prevalence of categorical variables and calculation of means of numerical variables and their respective standard deviation and minimum and maximum values. In the chi-square test, values of $p<0.05$ were considered statistically significant. Analysis of variance was used to compare means. All analyses were performed using the Epi InfoTM 7.2.4.0 software at a 5% significance level.

3. Results and Discussion

The study had the participation of 128 students of all genders, aged between 18 and 58 years, mean 24.6 ± 6.3 years, enrolled from the 1st to the 12th period of the nursing course. As for the place of birth, there was a predominance in the Northeast region of Brazil (87.5%), mainly from the states of Paraíba (70.3%) and Pernambuco (10.9%). The participants were mostly female, heterosexual, single, brown and preferred Christian religions (See Table 1 for more information on participant characteristics).

As for modifiable habits, most said they did not drink (54.7%), did not smoke (94.5%) and practised physical activity (51.6%). The latter was significantly higher ($p \leq 0.01$) among students with lower mean age (23.2 ± 5.8 years). It was found that most of the respondents (63.3%) do not have health insurance and have undergone psychological (43.8%) and or psychiatric (22.7%) treatment.

Table 1 - Characteristics of the nursing students participating in the research. João Pessoa-PB, 2021 (N=128).

CATEGORICAL VARIABLES	CATEGORIES	Nº	%
Sex	Female	112	87.5
	Male	16	12.6
Race/Ethnicity/Colour	Brown	53	41.4
	White	53	41.4
	Black	13	10.2
	Mestizo	7	5.5
	Indigenous	1	0.8
	Brown	1	0.8
Sexual Orientation	Heterosexual	103	80.5
	Bisexual	16	12.5
	Homosexual	6	4.7
	Pansexual	3	2.3
Relationship status	Single	100	78.1
	Married	11	8.6
	Stable Union	11	8.6
	Divorced	3	2.3
	Widowed	1	0.8
CATEGORICAL VARIABLES	CATEGORIES	Nº	%
Religious Preference	Catholicism	30	23.4
	Christianity/Spiritism/Protestantism	52	40.6
	No Religion	30	23.4
	Protestantism/Evangelical	12	9.4
	Umbanda /Candomblé	2	1.6
	Own Religion	1	0.8
Alcohol consumption		58	45.3
Tabagism		07	5.5
The practice of physical activity		66	51.6
Has health insurance		47	36.7

Source: Research data.

Table 1 show the prevalence of young, single and female students in the Nursing course at UFPB, and this suggests the maintenance of a national profile similar to that described in the years 2004 and 2010. It is also noted a change concerning colour/ethnicity, with an increase in students self-declared as biracial person/brown or black (Maas, 2018).

3.1 Health status of students

Health involves the balance of biopsychosocial factors and includes subjective well-being (Karunamuni et al., 2021). With this in mind, the present study asked participants about their self-perception regarding their health. The answers obtained showed a positive self-perception of the state of health (75.7%). Negative self-perception of health was identified in thirty-one participants (24.2%) (Table 2) and can be a warning sign for common mental disorders such as anxiety and depression (Östberg & Nordin, 2022). Gender (p=0.91) did not influence self-perception of health.

In the pathological history, the diagnosis of mental disorders stood out, anxiety (22.7%) and depression (14.1%), and headache, possibly exacerbated with the advent of the pandemic, especially among women and those who lack social support. These data justify the prevalence of self-reports of psychological, psychiatric or neurological follow-up and of seeking mental health services during the pandemic (Table 2; Table 1).

Table 2 – Distribution of the participants' answers regarding professional support, pain complaints, self-perception of health and acquisition and use of medicines, with respective average ages, João Pessoa, Brazil, 2021.

VARIABLE	N	%	AVERAGE AGE
SAMPLE	**128**	**100**	**24.6±7.4**
PROFESSIONAL SUPPORT			
Used complementary/alternative therapy	79	61.7	24.6±7.7
Had psychological treatment	56	43.8	25.8±8.3
Used mental health services during the pandemic	38	29.7	25.8±9.3
Had psychiatric treatment	29	22.7	25.9±6.4
Had neurological treatment	16	12.5	23.7±5.0
PAIN COMPLAINTS			
Daily pain	24	18.8	26.5±7.8
Pain several times a week	57	44.5	25.2±7.6
Problems sleeping because of pain	12	9.4	22.4±4.4
SELF-PERCEPTION OF HEALTH			
Feels/perceives any symptoms that you consider having a pathological meaning	60	46.9	25.6±8.5
Good	52	40.6	25.3±7.9
Very good	41	32.0	24.0±6.7
Feels sick	34	26.6	24.5±6.4
Regular	26	20.3	25.0±7.8
Excellent	04	3.1	21.0±2.5
Bad	04	3.1	20.5±1.3
Very bad	01	0.8	36.0±0.0
ACQUISITION AND USE OF MEDICINES			
Bought or used medicines without a prescription	111	86.7	24.7±7.1
Is currently taking medication	39	30.5	24.4±7.0

Source: Research data.

Table 2 shows the frequency of seeking professional support (psychologist, psychiatrist, neurologist, therapist) before and during the pandemic, pain complaints, perceptions of their own health and the use of medication. These data agree with the reports of the previous diagnosis of anxiety disorders, depression and headache and with other complaints reported (Chart 1).

Positive self-perception of health associated with healthy habits and social support can improve mental functioning and function as protective factors against the negative psycho-emotional impacts of the pandemic of COVID-19.

Chart 1. Pathological history and self-reported complaints by nursing students during the pandemic in 2021.
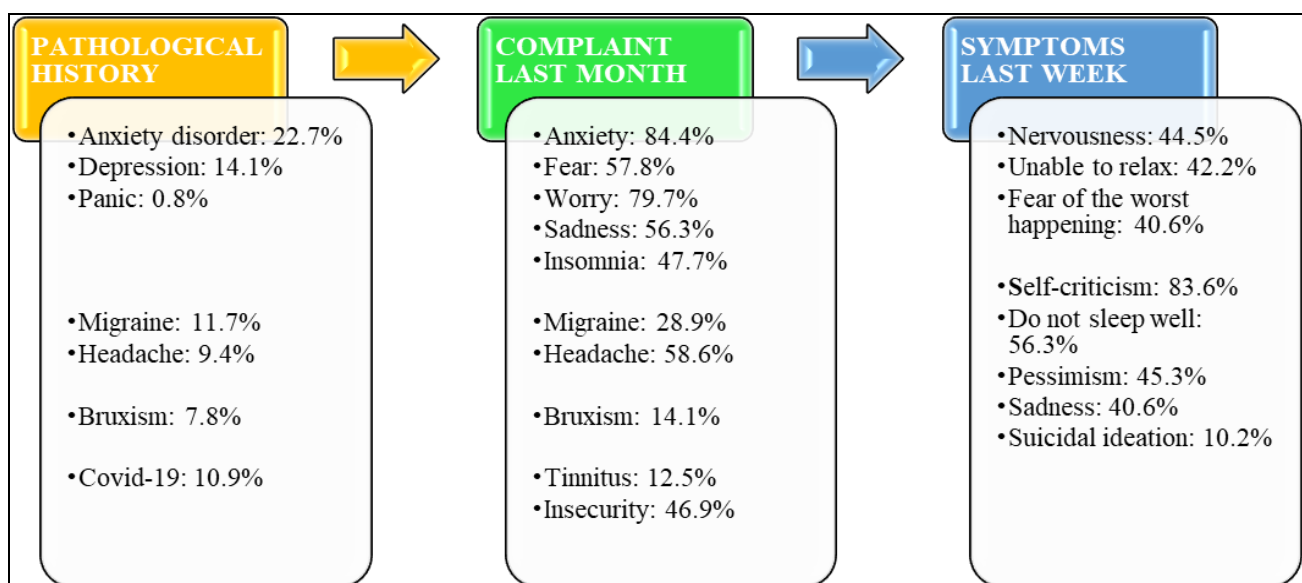
Source: Research data.

Chart 1 points out the prevalence of diagnosed pathologies and highlights previously diagnosed mental and neurological disorders. See also other complaints reported over the last month and last week. The data show a possible relapse or exacerbation of psycho-emotional symptoms, headache, sleeping disorder and bruxism among participants. Psychological symptoms of anxiety, worry and fear, are considered common during a pandemic (Arora et al., 2020). However, the presence of earlier health problems and mental disorders increases the likelihood of developing psycho-emotional symptoms (Campos et al., 2020; Tausch et al., 2022). From this perspective, the data presented (Chart 1; Table 2) show the presence of several risk factors for the development of psychopathologies in this university sample. Pain was a prevalent complaint among the students, as 63.3% reported pain in a daily pattern (18.8%) or several times a week (44.5%) (Table 2). These data corroborate the self-reported headaches (migraine/headache) described in Chart 1.

3.2 Signs and symptoms of anxiety

The reaction of the pandemized body-mind complex will be described in the next paragraphs and sections. A self-report to perhaps represent and communicate the feelings and (re)actions of those who experienced the first wave of the pandemic in Brazil and continued its path in the second wave.

> ... What has happened cannot be undone. One has to deal with the marks of trauma that remain on the body, the mind and the soul: the feeling of pressure in the chest, which can be called anxiety or depression; the fear of losing control; constant vigilance against danger or rejection; self-loathing; nightmares and flashbacks; the fog that prevents a task from being completed or to concentrate fully on what you are doing... (Kolk, 2020).

In the last month, anxiety (84.4%), worry (79.9%), fear (57.8), sadness (56.3%) and insomnia (47.7%) were common complaints among students. When answering the anxiety symptoms questionnaire, with a one-week recall period, the most common anxiety symptoms were nervousness, inability to relax and fear. See Table 3 for the prevalence of organic, physiological, and psychological reactions representative of anxiety symptoms during the second wave of the COVID-19 pandemic in Brazil. The focus of the research was the intensity of anxious symptoms considered moderate or severe.

Table 3 - Prevalence of moderate to severe anxiety symptoms among nursing students corresponding to the last week. João Pessoa, Brazil, 2021.

SYMPTOMS OF ANXIETY	TOTAL MODERATE AND SEVERE LEVELS	
	Nº	%
Nervous	57	44.5
Unable to relax	54	42.2
Fear of the worst happening	52	40.6
Palpitation/heart acceleration	33	25.8
Indigestion or abdominal discomfort	29	22.7
Fear of dying	27	21.1
Frightened	26	20.3
Fear of losing control	24	18.8
Difficulty in breathing	23	18.0
Sensation of suffocation	21	16.4
Terrified	15	11.7
Stunned	15	11.7
Hand tremors	13	10.2
Numbness and tingling	09	7.0
Trembling	09	7.0
Sweating (not due to heat)	09	7.0
Tremors in the legs	07	5.5
Unbalanced	06	4.7
Feeling faint	05	3.9
Flushed face	05	3.9

Source: Research data.

The prevalence of nervousness and autonomic dysfunctions in Table 3 agree with literature data and were considered the most anxiety-related symptoms in nursing students in previous studies (Braga et al., 2021; Fernandes et al., 2018). All this, amplified by the pandemic period and associated with different fears (Chart 1), including the fear of fear, may be the precursor of panic syndrome (Gomes et al., 2022). Moreover, this set of signs and symptoms interfere with decision-making, and alter cognition, actions and the production of life in any context, pandemic or not.

Literature data show that the frequency of anxiety among nursing students before the pandemic was higher among women and increased during their undergraduate studies. The overload of academic and domestic activities, the lack of affective support and the uncertainties about the professional future were triggering factors of anxiety (Carvalho Silva et al., 2021; de Sousa Silva et al., 2021).

In the pandemic context, from March to April 2021, most nursing students at a university in the interior of the state of Paraíba presented medium to high anxiety state, with the prevalence of medium state (Araújo, 2021). Considering the profile of the current study sample, the second wave of COVID-19, social isolation and all the individual and collective risk factors experienced, it is likely that the female gender and the physical and mental overload continue as risk factors for mental suffering and emergence or exacerbation of psycho-emotional disorders in this sample.

Social isolation was a socio-emotional and psycho-emotional challenge and affected, for example, the level of satisfaction with life (Vieira et al., 2020). Fear and anxiety are normal when faced with situations of risk or danger. In this way, within due normality limits, it can be considered normal, physiological, some signs and symptoms in the face of a pandemic event with uncertain prevention, protection and treatment measures and a risk of death. However, the question remains: What is the "normal" or proportional level of reaction in the face of an abnormal situation, this COVID-19 pandemic, with so many

changes, uncertainties and losses? To better understand the self-reported anxiety and fear symptoms, a brief description of the reality experienced in Brazil and at UFPB during the period of data collection follows.

3.2.1 Fear in Pandemic Times: second wave in Brazil

During the period of data collection, Brazil was facing a frightening pandemic scenario known as the "second wave", when a peak of 3000 deaths per day (moving average) was reached, installation of sanitary chaos, the collapse of the health system, lack of equipment and supplies for intensive care units, exhaustion of the workforce and collapse in health with the intense crisis in Amazonas where people died for lack of oxygen. Conversely, several measures to organise the chaos and combat the virus were instituted and others were maintained, among them, the start of vaccination in January 2021, the use of masks, isolation and social distancing, quarantine and, in some places, Lockdown (Fiocruz, 2022).

Some protective measures to control the spread of the disease, triggered uncertainty and economic disorder with recession and unemployment as well as implicated in mental health with possible psycho-emotional consequences where fear of contamination by a lethal virus, coronophobia, and the mass confinement, contributed to idleness, alcoholism, sadness, exacerbation or onset of anxiety disorders and depression, hopelessness and mental ill-health (Donida et al., 2021).

Fear was also fomented through television, media and social media. With the measures of isolation and social distancing, a large number of people spent more time at home consuming more television programmes and using the internet to work, study and socialise remotely, providing greater access to virtual content, news and information of various quality standards, being more exposed to terrifying images and news such as that of São Paulo's City Council, showing the accelerated opening of multiple new graves at the Vila Formosa cemetery, the largest in the city, with the use of backhoe loaders (Exame, 2020). The intense volume of quality information permeated by opinions and fake news or overstated truths, as well as sensationalist headlines, have nurtured fears and hopelessness, aroused anger and the development of coronaphobia (Arora et al., 2020; Asmundson & Taylor, 2020; Donida et al., 2021; Naguy et al., 2020).

The students of UFPB, actors in this scenario, were surprised by this new way of living and relating to others, from the suspension of presential activities at the university, in April 2020, and soon after, the institution of remote teaching, which lasted for two years, gradually returning to presential teaching on 21st February and was scheduled to end on 25th June 2022 (UFPB, 2020a, 2020b, 2021).

All this experience of uncertainty, pain, loss of friends and relatives certainly led the academics to the fear of losing control, fear that the worst will happen and inevitably the fear of death. Fear is a risk factor for mental distress and is expected in the pandemic context. Previous work carried out with other health students at UFPB revealed a higher prevalence of fear than that described in this work (Carneiro et al., 2021a; Carneiro et al., 2021b), perhaps due to the greater uncertainty and insecurity at the start of the pandemic.

3.3 Depressive Symptoms

> I don't know how to explain the overflowing feeling in my chest, the mysterious throbbing in my forehead. It's as if something obscured my vision. Afterwards, this feeling will have a name, then I will know that its name is depression. Now all I know is that getting out of bed takes effort. There is an effort to breathe. And, what's worse, the existential effort. Why wake up? What is there to do? (Eger, 2019).

Edith Eva Eger's account (2019, p.112) shows a mind in deep suffering and a multilingual body in reciprocal body-brain-mind communication. Emotions and feelings are often recorded as bodily expressions, sensations, pain or autonomic disturbances. Thus, the questions proposed in the research portray some of the participants' responses to the pandemic context and will be described in the following paragraphs.

A total of 14.1% of students reported a medical diagnosis of clinical depression. More than half of the participants declared to be feeling well (67.2 %). When considering the last month, worry (79.7%), sadness (56.3%) and insomnia (47.7%) were prevalent self-reported complaints. In addition, in the last week, some depressive symptoms were reported and are described in Table 4. Fatigue was significantly higher (p = 0.05) among the youngest (23.6 ± 5.8), whilst interest in sex was significantly lower (p = 0.01) amongst students with a higher average age (27.3 ± 9.9 years).

Table 4 - Self-reported prevalence of signs and symptoms of depression, João Pessoa, Brazil, 2021.

SIGNS OF DEPRESSION	Nº	%
Self-criticism	**107**	**83.6**
Irritability	**92**	**71.9**
I get tired more easily than I used to	**91**	**71.1**
Discouragement about the future/pessimism	**76**	**59.4***
Sleeping disorder	**72**	**56,3**
I am less interested in other people	63	49.2
I gained more than 2.5 kg	61	47.7
Self-loathing/self-deception	59	46.1
I delay decision-making more than I used to	59	46.1
I feel guilty a lot of the time	58	45.3
I need extra effort to do something	58	45.3
I no longer feel pleasure in things as before	57	44.5
SIGNS OF DEPRESSION	Nº	%
Sadness	52	40.6
Concern about physical problems such as pain, stomach disorders or constipation	47	36.7
Sense of failure	47	36.7
I believe I look ugly	47	36.7
I am less interested in sex than I used to be	46	35.9
My appetite is not as good as it used to be	45	35.2
I can sleep as well as usual	40	31.3
I am worried about looking old or unattractive	39	30.5
I cry more now than I used to	37	28.9
I am too tired to do anything.	34	26.6
I wake up several hours earlier than I used to and can't get back to sleep	32	25.0
Now I feel irritated all the time	32	25.0
I am much less interested in sex now	29	22.7
I think I may be punished	25	19.5
My appetite is much worse now	23	18.0
Lost more than 2.5 Kg	20	15.6
I can't do any work	17	13.3
I am very worried about physical problems and it is difficult to think about anything else	17	13.3
Indecisiveness	14	10.9
Suicidal ideas	13	10.2
I lost all interest in other people.	09	7.0
Lost more than 7 Kg	09	7.0
I have completely lost interest in sex	09	7.0
Now I cry all the time	08	6.3
Without apetite	04	3.2

* Significantly higher in the female gender (p<0.05). Source: Research data.

Table 4 shows that self-criticism, irritability, fatigue, pessimism and sleeping disorders were the most frequent depressive symptoms in nursing undergraduate students during the second wave of the COVID-19 pandemic. Pessimism was significantly higher in the female gender (n= 71; 93.4% of the women p<0.05). During the pandemic period pessimism was associated with the worsening of previous psychiatric conditions. Whereas sleeping disorders were found to be emergent among patients with a major depressive disorder (Gobbi et al., 2020).

In 2016, a research conducted with nursing students at a federal university in the Northeast of Brazil found a 30.2% prevalence of depression, the majority in this sample presented some level of fatigue (71.8%), irritability (62.0%), indecision (57.1%) and sleeping disorder (53.9%) (Fernandes et al., 2018). These data resemble those described in Table 4 and therefore, the prevalence of these symptoms in UFPB students may represent new cases of depression associated with worsening of previous psychiatric conditions.

A survey conducted in 2018, recorded a 25.3% prevalence of moderate or severe depressive symptoms, in nursing students at the Nursing School of the Federal University of Rio Grande do Sul, which mainly affected first-year students and students of the female gender (Pinheiro et al., 2020). Thus, it can be assumed, considering the prevalence of self-criticism and irritability in the female gender, maintenance of this trend in nursing students at UFPB.

As already mentioned, depression is a disorder on the rise, whose risk and protective factors are known, therefore, it requires attention from social actors, the community and the family to welcome and develop affective and effective strategies to modify cognition and risk behaviours and prevent or avoid the progression of the disease towards a fatal outcome. For this, it is necessary to invest in promoting and maintaining the health and quality of life of the population, especially those with personal or socio-economic vulnerability and mental distress, and cognitive and adaptive dysfunctions.

Depression makes it difficult to perform daily duties and fulfil responsibilities. This can be confirmed in the self-report (Table 4) of fatigue, indecision and the item "I can't do any work". Faced with this impotence, giving up on dreams and life seems, to some, a solution to existential emptiness and suffering. On this often solitary journey, without diagnosis and treatment, in the company of fear, of judgement and labels derived from ignorance or religious beliefs, the outcome can be fatal. Thus, research and academic debate are necessary for decision-making and strengthening protective factors (Figueira, 2018). See the next sections for symptoms of hopelessness related to the last week, a period of social isolation and the profile of students with suicidal ideation.

3.4 Symptoms of Hopelessness - Cognition of the Future

The majority of students have positive expectations and stated that they are hopeful regarding the future (55.5%). Another positive aspect, refers to resilience, as most believe that past experiences have prepared them well for life, for the future and expect to be happier in the future (Table 5). The disbelief of some young people in the future was revealed in the lack of hope and enthusiasm for the future (44.5%) and the expectation of a bleak future (15.6%).

Table 5 - Prevalence of expectations about the future among nursing students at UFPB, João Pessoa, Brazil, 2021.

COGNITION	Nº	%
POSITIVE EXPECTATIONS OF THE NEAR AND REMOTE FUTURE		
When I think of the future, I hope to be happier than I am now	120	93.8
In the future, I hope to succeed in what interests me most	117	91.4
When things are going badly, it helps me to know that they cannot continue like this forever	106	82.8
I have great faith in the future	97	75.8
I can expect more good times than bad	96	75.0
My past experiences prepare me well for the future	72	56.3
I think about the future with hope and enthusiasm	71	55.5
I have enough time to accomplish the things I want to do	52	40.6
I am especially lucky and I hope to achieve more than the average person	41	32.0
NEGATIVE EXPECTATIONS OF THE NEAR AND REMOTE FUTURE		
Things just do not work out the way I want them to	56	43.8
The future seems vague and uncertain to me	53	41.4
I can't imagine what kind of life will be mine ten years from now	39	30.5
All I can see in front of me is more displeasure than pleasure	23	18.0
I don't expect to get what I really want	22	17.2
My future looks bleak	20	15.6
I do not seize opportunities and there is no reason why I should be able to do so in the future	16	12.5
It would be better to give up because there is nothing, I can do to make things better for myself	13	10.2
I never get what I want, so it is foolish to want anything	13	10.2
It is unlikely that I will get any real satisfaction in the future	13	10.2
There is no point trying to actually get something I want because I probably will not get it	13	10.2

Source: Research data.

In Table 5 many participants with cognition of hopelessness can be seen. These dysfunctional cognitive schemas can portend a critical point, a risk of suicide (Cunha, 2017). Therefore, the triad of sadness, pessimism and hopelessness point to the need to investigate suicidal behavior and its oscillation over time. The worldwide suicide rate has been growing significantly, however, it is still a little discussed and understood topic, perhaps due to social taboos and religious aspects (Figueira, 2018).

3.5 Suicidal Idea

The students with self-reported suicidal ideation (10.2%; N=13) were young people between 18 and 37 years old, mean age of 24.7 ± 6.4 years, mostly female (92.3%; N=12). They declared themselves to be heterosexual (53.9%), 23.1% bisexual, 15.4% homosexual and 7.7% pansexual. The relationship status of most was single (76.9 %) the others were married (23.1 %). As for self-declared race/ethnicity/colour, 61.5% were mulatto/ brown and 30.8% white.

Table 6 - Frequency of cognitions, most frequent complaints and professional support used by students with self-reported suicidal ideation (N=13).

VARIABLES	N	%
Self-delusion	13	100
Self-criticism	13	100
Sadness	12	92.3*
Sleeping disorder	12	92.3*
The future seems vague and uncertain	11	84.6*
Discouragement about the future (pessimism)	10	76.9
Feels sick	9	69.2*
Thinks that could be punished	7	53.9*
In use of medication	7	53.9
Has undergone psychological treatment	7	53.9
Alcohol consumption	7	53.9
Negative self-perception of health	7	53.9
Has undergone psychiatric treatment	6	46.2
Indecisiveness	5	38.5
Used mental health services during the pandemic	5	38.5

$*p>0.01$
Source: Research Data.

Table 6 allows us to observe the cognitive distortions of students with suicidal ideation with emphasis on the negative perception of themselves, their health and the future. A similar prevalence of suicidal ideation (10.9%; N = 16) was described in nursing students in the southern region of Brazil in the second semester of 2020 (Jantara et al., 2022) and among Chinese students (10-11.5%) in November 2020 (Brailovskaia et al., 2022).

In 2016, a survey of nursing students at a public institution in the Northeast region showed a 15.2% prevalence of suicidal ideas (Fernandes et al., 2018). A study conducted in 2017, recorded a 13.1% incidence of suicide attempts among nursing students in the Federal District, Brazil, with a prevalence in the female gender. Of this group, 56.4% continued to have suicidal ideation (Albuquerque et al., 2019). In 2019, research conducted in Pernambuco, Brazil, reported a 53.3% risk of suicide among nursing students, of which, 20.7% were elevated risk, and 20.7% minimal risk of suicide. At the same time, 22.7% of students reported an earlier history of attempted suicide. The risk of suicide in this group was significantly higher among students without a partner, so relationship status represented a risk factor (Moraes et al., 2021). Thus, current and pre-pandemic data show female gender and relationship status as risk factors for suicidal ideation. These factors are prevalent in the current sample. However, the prevalence of suicidal ideation among UFPB nursing students presented now was lower than those reported in other studies with nursing students, aforementioned data, and other health students from UFPB (Alves et al., 2022) before the pandemic, which shows an oscillation in the prevalence of suicidal ideation before and during the pandemic. In the case at hand, a reflection based on Viktor Frankl's accounts of suicide is worthwhile, which could decrease with increasing external challenges and difficulties by determining an increase in internal resistance and the feeling of a reason to live, a task to be accomplished, a reason to endure "the how to" live (Frankl, 2018).

The female gender, relationship status, negative self-perception of health, and clinical comorbidities such as pain, sleep disorder and psychiatric disorder have been associated with suicide attempts in other studies (Ahmedani et al., 2017; Borba et al., 2020; Moraes et al., 2021; Santos et al., 2021). The data presented now reaffirms these variables as risk factors for suicide.

In pandemic Brazil, the focus and effort were directed towards the development of physical health care strategies, followed subsequently by mental health concerns, which oscillated throughout the pandemic with a lack of social support. However, physical and mental health are interdependent, and, in the pandemic, context resulted in emotional imbalance. The anxious, depressive and hopelessness symptoms added to neurological alterations, alcohol consumption and smoking distance the individual from a good mental health condition. This context of fear, physical/emotional vulnerability and the possible inability to cope with uncertainty, led students to resort to adaptive and emotional management strategies such as social support. Many techniques, strategies and interventions improve mental functioning (WHO, 2021) and were used, as depicted below.

3.6 Social Support: experience and relevance in pandemic times

Social support involves multiple resources available in the context of formal or informal support. It involves, for example, the support and sustainability offered by the social network (family and/or friends/community in an affective, assistential, informative and companionship nature. The support network generates the self-confidence and the self-perception of being cared for, esteemed, loved, appreciated, valued and belonging to a network of mutual care. Social support is a mediator of negative states, bequeaths to the individual positive feelings and contributes to the prevention, protection and promotion and maintenance of health and psychological well-being (Fasihi Harandi et al., 2017; Ximenes et al., 2019). In this study three types of Social Support were identified: professional support, emotional support and informational support, as well as two sources: books and online resources. Participants massively used emotional support by talking to friends (74.2%) and family members (64.8%). There is a relationship between emotional support and hope, as well as its positive impact on the ability to create plans, achieve goals and take initiative. Therefore, the greater the degree of social support, the better the levels of hope (Archer et al., 2019). On the other hand, the lack of emotional support was related to the worsening of psychiatric disorders (Gobbi et al., 2020).

This study shown online access as positive use in the operating of online therapy (18.0%), psychological resources (13.3%) and messages about coping (10.2%). The pandemic in Brazil was conducted through social isolation, quarantine and "stay at home"; disseminated as protection and prevention actions. A new way of living, interacting, communicating and relating has been redesigned. The increase in web browsing (70.0%) and social media (61.0%) provided positive impacts, promoted remote studies, online classes and therapies, access to health education on social media platforms and a plethora of information and content, as well as providing access to family members and entertainment; and negative impacts such as abusive media use leading to psychological suffering and digital dependency (Duarte et al., 2021).

During the pandemic period, staying at home isolated with fear and uncertainty in the face of the disease and its repercussions on life and the future, was a driving force for a look/reflection on the way of living from the new context, as well as a stimulus to seek resources for self-care. Resorting to the arts was part of one of the care and survival strategies. The students used art through music (93.0%), singing (50.8%), dancing (44.5%) and writing (26.6%). These activities fill time with pleasure and improve mental health, denoting the autonomy and self-responsibility of the individual with his health (Barbosa et al., 2020; Duarte et al., 2021).

Concerning professional social support, it was found that most of the respondents (63.3%) have no health insurance and have had psychological (43.8%) and or psychiatric (22.7%) treatment. The fact of not having health insurance during the pandemic period, where the health care network was in chaos at various times, may have contributed to the evolution of emotional symptoms and psychological disorders, especially in students who have already faced the need for psychological or psychiatric treatment. Emotional disorders can contribute to a lack of motivation to study, concentration problems, failures and

a decrease in academic performance, as well as leading to symptoms related to depression and depressive disorders (Oliveira et. al, 2020).

Integrative therapies also known in Brazil as Integrative and Complementary Health Practices (*Práticas Integrativas e Complementares em Saúde* - PICS) stand out in the professional support (Figure 2). These therapies were the most used as coping resources in the evaluated period, among them can be highlighted: meditation (35.2%), yoga (17.2%), music therapy (16.4%), aromatherapy (13.3%), auriculotherapy (7.8%), wind therapy (7.8%) and homoeopathy (6.3%). Many of these therapies were used by participants before the pandemic, mainly auriculotherapy (32.8%) and meditation (31.3%), both offered in several UFPB extension projects.

In Campus I of UFPB there was a significant offer of the PICS to the academic community, with flexible timetables that allowed the association of academic and therapeutic activities. This made it possible, before the pandemic, to care for body, mind and spirit. However, during the COVID-19 pandemic, many of these presential practices were suspended due to social isolation guidelines and the establishment of remote learning. In this period, some practices adapted to digital platforms and brought students together in collective actions for online therapies and relaxation (Carneiro et al., 2021a; Carneiro et al., 2021b; Carneiro et al., 2020; Carneiro et al., 2021).

PICS relieve symptoms and are recommended for self-care and health promotion. Meditation and Yoga, for example, relieve stress and have beneficial effects on reducing anxious and depressive symptoms, decreasing negative affect and increasing positive affect, decreasing stress increasing life satisfaction and vitality (de Oliveira et al., 2020; Flett et al., 2019; Lynch et al., 2018).

.

4. Conclusion

The outbreak and evolution of the pandemic of COVID-19 and the repercussions of the disease and combat/control measures have been a challenge to emotional balance and health maintenance. In this historical context, the UFPB nursing students experienced the second wave with psycho-emotional reactions, such as nervousness and fear, but also with various coping strategies, related to the affective support of family and friends. The data highlighted the main complaints and cognitive distortions of these students and show the need to investigate their routine and the main stressors and risk factors to finally provide adequate psychosocial support to promote and protect the well-being, improvement of mental functioning and the maintenance of health and quality of life of these university students, bringing them closer to the protective factors.

Financial Support

References

Ahmedani, B. K., Peterson, E. L., Hu, Y., Rossom, R. C., Lynch, F., Lu, C. Y., & Simon, G. E. (2017). Major Physical Health Conditions and Risk of Suicide. *American Journal of Preventive Medicine, 53*(3), 308-315. 10.1016/j.amepre.2017.04.001

Albuquerque, R. N. d., Borges, M. d. S., & Monteiro, P. S. (2019). Perfil epidemiológico do suicídio entre estudantes de enfermagem. *Rev. enferm. UERJ*, e45607-e45607.

Alves, L. B., Carneiro, A. L. B., Ramos, S. C. d. S., Melo, M. N. A. d., & Silva, L. A. d. (2022). Perceptions, Physical and Psycho-Emotional Complaints Among Students: a cross-sectional study before the pandemic. *International Journal of Health Science, 2*, 1-14.

Araújo, J. P. d. S. (2021). Ansiedade, estratégias e expectativas dos estudantes de enfermagem de uma universidade da Paraíba na pandemia (Covid-19). [Trabalho de Conclusão de Curso, Universidade de Campina Grande]. http://dspace.sti.ufcg.edu.br:8080/xmlui/handle/riufcg/21505

Archer, C. M., Jiang, X., Thurston, I. B., & Floyd, R. G. (2019). The differential effects of perceived social support on adolescent hope: Testing the moderating effects of age and gender. *Child indicators research, 12*(6), 2079-2094.

Arora, A., Jha, A. K., Alat, P., & Das, S. S. (2020). Understanding coronaphobia. *Asian Journal of Psychiatry, 54*, 102384. 10.1016/j.ajp.2020.102384

Asmundson, G. J. G., & Taylor, S. (2020). Coronaphobia: Fear and the 2019-nCoV outbreak. *Journal of Anxiety Disorders, 70*, 102196. 10.1016/j.janxdis.2020.102196

Barbosa, A. M., de Lima, S. P., & Amaral, V. (2020). Reflexões VI, VII e VIII: reflexões da Educação e das Artes na Era da COVID-19. *Communiars. Revista de Imagen, Artes y Educación Crítica y Social*(4).

Borba, L. D. O., Ferreira, A. C. Z., Capistrano, F. C., Kalinke, L. P., Maftum, M. A., & Maftum, G. J. (2020). Factors associated with suicide attempt by people with mental disorder. *Reme Revista Mineira de Enfermagem, 24*. 10.5935/1415-2762.20200013

Braga, S. C., Vernaglia, T. V. C., Mello, R., & Silva, N. C. M. D. (2021). Avaliação da ansiedade em estudantes de Enfermagem: revisão integrativa da literatura. *Research, Society and Development, 10*(12), e354101220547. 10.33448/rsd-v10i12.20547

Brailovskaia, J., Teismann, T., Lewitzka, U., Gao, Z., Zhang, X. C., & Margraf, J. (2022). Suicidal ideation, suicide attempts and positive mental health in Chinese medical students. *Journal of Affective Disorders Reports*, 100354.

Cardoso, J. V., Gomes, C. F. M., Pereira Junior, R. J., & Silva, D. A. d. (2019). Estresse em estudantes universitários: uma abordagem epidemiológica. *Rev. enferm. UFPE on line*, [1-7].

Carneiro, A. L. B., Ramos, S. C. D. S., Brasil, A. W. D. L., Silva, L. A. D., Lima, G. G. D., Alves, L. B., & Melo, C. D. M. B. D. (2021a). COVID-19 - The invisible enemy: impacts on students' mental health and coping strategies. *Research, Society and Development, 10*(1), e59110112144. 10.33448/rsd-v10i1.12144

Carneiro, A. L. B., Ramos, S. C. d. S., Brasil, A. W. d. L., Silva, L. A. d., Lima, G. G. d., Alves, L. B., & Melo, C. d. M. B. d. (2021b). COVID-19: Impactos na saúde mental dos estudantes e estratégias de enfrentamento. In *Pesquisa em Temas de Ciências da Saúde* (Vol. 11).

Carneiro, A. L. B., Ramos, S. C. D. S., Ribeiro, R. M., Melo, C. D. M. B. D., Melo, M. N. A. D., Aguiar, P. K. F. D., & Falcão, P. B. L. (2020). Terapia Comunitária Integrativa em Tempos de Pandemia: Encontros, encantos, (con)vivências e partilhas que transcendem as telas. *Research, Society and Development, 9*(11), e2869119785. 10.33448/rsd-v9i11.9785

Carneiro, A. L. B., Ramos, S. C. d. S., Ribeiro, R. M., Melo, M. N. A. d., Melo, C. d. M. B. d., Aguiar, P. K. F. d., & Alves, L. B. (2021). Terapia Comunitária Integrativa Virtual: Conexões em tempos de pandemia. In E. Poisson (Ed.), *Tópicos em Ciências da Saúde* (Vol. 23, pp. 84-98).

Carvalho Silva, T. K., De Moura Silva, T. T., Da Silva Menezes, R., Da Silva Frazão, I., Dos Santos, C. M., Gonçalves Da Silva, A. M., & De Santana Gomes, L. M. (2021). Comparação de rastreamento e estado de ansiedade entre estudantes de enfermagem. *Saúde Coletiva (Barueri), 11*(60), 4762-4773. 10.36489/saudecoletiva.2021v11i60p4762-4773

Cunha, J. A. (2017). *Manual da versão em português das Escalas Beck*. São Paulo: Pearson Clinical Brasil.

de Oliveira, F. P., da Silva Lima, M. R., & de Farias, F. L. R. (2020). Terapias integrativas e complementares em situações emocionais na pandemia do COVID-19. *Revista Interdisciplinar, 13*(1), 24.

de Sousa Silva, A. O., de Souza, T. T., de Sousa Saraiva, A. L., de Sales, É. N. B. G., Bessa, C. C., Facundo, S. H. B. C., & da Silva, J. d. S. (2021). Fatores intervenientes ao transtorno de ansiedade em acadêmicos de enfermagem. *Brazilian Journal of Development, 7*(5), 51962-51981.

Donida, G. C. C., Pavoni, R. F., Sangalette, B. S., Tabaquim, M. D. L. M., & Toledo, G. L. (2021). Impacto do distanciamento social na saúde mental em tempos de pandemia da COVID-19 / The impact of social distancing on mental health during the COVID-19 pandemic. *Brazilian Journal of Health Review, 4*(2), 9201-9218. 10.34119/bjhrv4n2-422

Duarte, R. C., Borges, E. M., Santos, L. V., Barboza, V. S., & Pereira, C. G. S. (2021). Biomídia e saúde: vantagens e desvantagens em tempo de pandemia. *Revista Eletrônica de Comunicação, Informação e Inovação em Saúde, 15*(4). 10.29397/reciis.v15i4.2396

Eger, E. E. (2019). *A bailarina de Auschwitz*. Rio de Janeiro: Sextante.

Exame. (2020). Prefeitura acelera abertura de covas em maior cemitério de São Paulo. Retrieved from https://exame.com/brasil/prefeitura-acelera-abertura-de-covas-em-maior-cemiterio-de-sao-paulo/

Fasihi Harandi, T., Mohammad Taghinasab, M., & Dehghan Nayeri, T. (2017). The correlation of social support with mental health: A meta-analysis. *Electronic Physician, 9*(9), 5212-5222. 10.19082/5212

Fernandes, M. A., Vieira, F. E. R., Silva, J. S. E., Avelino, F. V. S. D., & Santos, J. D. M. (2018). Prevalence of anxious and depressive symptoms in college students of a public institution. *Revista Brasileira de Enfermagem, 71*(suppl 5), 2169-2175. 10.1590/0034-7167-2017-0752

Figueira, J. S. D. S. (2018). *Avaliação do risco como estratégia de prevenção do suicídio* [Doctoral dissertation].

Fiocruz, B. M. d. S. (2022). COVID-19 - Balanço de dois anos da emergência em saúde pública de importância internacional e nacional. 29. https://portal.fiocruz.br/noticia/covid-19-balanco-de-dois-anos-da-pandemia-aponta-vacinacao-como-prioridade

Flett, J. A., Hayne, H., Riordan, B. C., Thompson, L. M., & Conner, T. S. (2019). Mobile mindfulness meditation: a randomised controlled trial of the effect of two popular apps on mental health. *Mindfulness, 10*(5), 863-876. https://doi.org/10.1007/s12671-018-1050-9

Frankl, V. E. (2018). *Psicoterapia para Todos: uma psicoterapia coletiva para contrapor-se a neurose coletiva*. Petrópolis, RJ, Brasil: Vozes.

Gobbi, S., Płomecka, M. B., Ashraf, Z., Radziński, P., Neckels, R., Lazzeri, S., & Jawaid, A. (2020). Worsening of Preexisting Psychiatric Conditions During the COVID-19 Pandemic. *Frontiers in Psychiatry, 11*. 10.3389/fpsyt.2020.581426

Gomes, A. B. S., Neto, A. S., Silva, R. A. L., & De Oliveira, S. G. (2022). Transtorno do pânico: Fisiopatologia e abordagens terapêuticas / Panic disorder: Pathophysiology and therapeutic approaches. *Brazilian Journal of Development, 8*(2), 13454-13471. 10.34117/bjdv8n2-332

Jantara, R. D., Abreu, D. P. G., Santana, L. D. L., Piexak, D. R., Ribeiro, J. P., & Barlem, J. G. T. (2022). Isolamento social e solidão em estudantes de enfermagem no contexto da pandemia COVID-19 [Social isolation and loneliness in nursing students in the context of the COVID-19 pandemic] [Aislamiento social y soledad entre estudiantes de enfermería en el cont. *Revista Enfermagem UERJ, 30*(1), e63609. 10.12957/reuerj.2022.63609

Kam, S. X. L., Toledo, A. L. S. D., Pacheco, C. C., Souza, G. F. B. D., Santana, V. L. M., Bonfá-Araujo, B., & Custódio, C. R. D. S. N. (2019). Estresse em Estudantes ao longo da Graduação Médica. *Revista Brasileira de Educação Médica, 43* (1 suppl 1), 246-253. 10.1590/1981-5271v43suplemento1-20180192

Karunamuni, N., Imayama, I., & Goonetilleke, D. (2021). Pathways to well-being: Untangling the causal relationships among biopsychosocial variables. *Social Science & Medicine, 272*, 112846. 10.1016/j.socscimed.2020.112846

Lima, J. R. N. D., Pereira, A. K. A. d. M., Nascimento, E. G. C. d., & Alchieri, J. C. (2013). Percepção do acadêmico de enfermagem sobre o seu processo de saúde/doença durante a graduação. *Saúde & Transformação Social, 4*(4), 54-62.

Lynch, J., Prihodova, L., Dunne, P. J., Carroll, A., Walsh, C., McMahon, G., & White, B. (2018). Mantra meditation for mental health in the general population: A systematic review. *European Journal of Integrative Medicine, 23*, 101-108.

Maia, B. R., & Dias, P. C. (2020). Ansiedade, depressão e estresse em estudantes universitários: o impacto da COVID-19. *Estudos de Psicologia (Campinas), 37*. 10.1590/1982-0275202037e200067

Moraes, S. M. A. B., Barbosa, V. F. B., Alexandre, A. C. S., Santos, S. C. D., Guimarães, F. J., & Veras, J. L. D. A. (2021). Risk of suicide among nursing students. *Revista Brasileira de Enfermagem, 74*(6). 10.1590/0034-7167-2020-0867

Naguy, A., Moodliar-Rensburg, S., & Alamiri, B. (2020). Coronaphobia and chronophobia – A psychiatric perspective. *Asian Journal of Psychiatry, 51*, 102050. 10.1016/j.ajp.2020.102050

Pereira, A. S., Shitsuka, D. M., Parreira, F. J., & Shitsuka, R. (2018). *Metodologia da Pesquisa Científica* (UFSM). Santa Maria.

Pinheiro, J. M. G., Macedo, A. B. T., Antoniolli, L., Dornelles, T. M., Tavares, J. P., & Souza, S. B. C. D. (2020). Quality of life, depressive and minor psychiatrics symptoms in nursing students. *Revista Brasileira de Enfermagem, 73*(suppl 1). 10.1590/0034-7167-2019-0134

Santos, N. M. D., Faustino, M. V. D. S., Santana, M. D. S., Fernandes, F. E. C. V., Diniz, L. P. M., & Santos, R. L. P. D. (2021). Prevalência de ideação suicida em acadêmicos da área de saúde. *Revista Eletrônica Acervo Saúde, 13*(4), e6447. 10.25248/reas.e6447.2021

Resolução Nº 08/2020, (2020a). Dispõe sobre a suspensão dos calendários acadêmicos para todos os cursos presenciais de graduação da UFPB pelo tempo que perdurar a situação de pandemia do COVID-19. https://sigrh.ufpb.br/sigrh/public/colegiados/filtro_busca.jsf

Resolução Nº 13/2020, (2020b). Dispõe sobre a regulamentação provisória de oferta excepcional de componentes curriculares e de atividades de ensino e de aprendizagem remotas para a graduação durante a execução do calendário suplementar, compreendido entre 08/06 e 14/08/2020. https://sigrh.ufpb.br/sigrh/public/colegiados/filtro_busca.jsf

Resolução Nº 45/2021 (2021). Dispõe sobre a regulamentação das exceções da Resolução Consepe n° 29/2020 para o período letivo regular 2021.2 com a previsão do retorno presencial gradual, com início em 21 de fevereiro e término em 25 de junho de 2022. https://sigrh.ufpb.br/sigrh/public/colegiados/filtro_busca.jsf

Tausch, A., E Souza, R. O., Viciana, C. M., Cayetano, C., Barbosa, J., & Hennis, A. J. (2022). Strengthening mental health responses to COVID-19 in the Americas: A health policy analysis and recommendations. *Lancet Reg Health Am, 5*, 100118. 10.1016/j.lana.2021.100118

Vieira, K. M., Postiglioni, G. F., Donaduzzi, G., Porto, C. D. S., & Klein, L. L. (2020). Vida de Estudante Durante a Pandemia: Isolamento Social, Ensino Remoto e Satisfação com a Vida. *EaD em Foco, 10*(3). 10.18264/eadf.v10i3.1147

Vieira, S., & Hossne, W. S. (2020). *Metodologia Científica para a Área da Saúde* (2 ed.). Rio de Janeiro: GEN / Grupo Editorial Nacional S.A.

WHO. (2017). *Depression and other common mental disorders: global health estimates* (No. WHO/MSD/MER/2017.2). World Health Organization.

WHO. (2020). *The impact of COVID-19 on mental, neurological and substance use services* (W. H. Organization Ed.).

WHO. (2021a). Comprehensive mental health action plan 2013–2030. In (pp. 30). Geneva: World Health Organization.

WHO. (2021b). *Mental Health Atlas 2020*. https://www.who.int/publications/i/item/9789240036703

Ximenes, V. S., Queluz, F. N. F. R., & Barham, E. J. (2019). Revisão sistemática sobre fatores associados à relação entre habilidades sociais e suporte social. *Psico, 50*(3), 31349. 10.15448/1980-8623.2019.3.31349