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# Mental Health in the Post-Pandemic Period: Depression, Anxiety, and Stress in Peruvian University Students upon Return to Face-to-Face Classes

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**Abstract:** Mental health is considered an indicator of well-being in which people perceive their own potential, can face adverse life situations, function adequately and fruitfully, and are capable of contributing to society. In this sense, the objective of the present investigation was to evaluate depression, anxiety, and stress in Peruvian university students upon their return to face-to-face classes. The quantitative approach was used, the design was non-experimental, and the type was descriptive of a cross-section. The sample consisted of 746 students who were administered the Depression Anxiety Stress Scale, an instrument with adequate psychometric properties. The results indicate that the students presented low levels of depression and anxiety. However, they presented moderate levels of stress. High, direct, and significant correlations were also reported between depression and anxiety ( $r_s = 0.850$ ;  $p < 0.05$ ), between depression and stress ( $r_s = 0.840$ ;  $p < 0.05$ ), and between anxiety and stress ( $r_s = 0.836$ ;  $p < 0.05$ ). It was also determined that depression, anxiety, and stress were significantly associated with some sociodemographic factors such as gender and age group ( $p < 0.05$ ). It was concluded that the students presented symptoms of depression, anxiety, and stress. Therefore, it is necessary for university authorities to implement strategies for the evaluation and prevention of these symptoms and for the promotion of better mental health in future professionals to promote their personal well-being and quality of life.

**Keywords:** mental health; depression; anxiety; stress; post-pandemic; face-to-face classes; university students; emotional state



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## 1. Introduction

The COVID-19 pandemic has had a significant impact worldwide and has generated a series of consequences in different aspects of life. In December 2019, several cases of atypical pneumonia caused by a new coronavirus, called SARS-CoV-2, which causes the disease COVID-19, were reported in Wuhan (China) [1]. Given the alarming increase in infections in several countries and continents, the World Health Organization (WHO) chose to characterize COVID-19 as a pandemic in March 2020, a situation that caused a great impact on society due to the repercussions in the various spheres of life (economic, health, social, cultural, and educational, among others) [2,3].

In the field of education, the development of academic activities in Peruvian and foreign universities stopped and, shortly afterward, an unusual reform was carried out: the migration from face-to-face education to virtual education [4] to avoid crowds and to reduce

the high rate of infections [5]. However, in this new context, students faced some challenges typical of the virtual modality such as technostress, hyper-connection, and computer visual syndrome, caused by constant exposure to laptops, tablets, and smartphones as they participated in classes and developed their virtual activities [6]. Likewise, they dealt with some problems associated with accessibility and connectivity, since many students were in rural areas [7], as well as fatalism from the possibility of being infected [8] and the financial limitations they were going through. All the indicated challenges directly or indirectly affected the emotional state of the students.

On the other hand, the COVID-19 pandemic and the restrictive measures implemented to mitigate its spread have had a significant impact on the mental health of the general population [9,10]. During and after the outbreak, negative psychosocial effects have been observed, leading to pathological emotional responses in many cases [11]. As a result, an increase in the prevalence of various mental disorders has been reported, which unfortunately continue to be widely neglected diseases globally. Among the most common mental disorders during the pandemic are stress, insomnia, anxiety, depression, and post-traumatic stress disorders [12]. Additionally, emotional disorders such as apathy, irritability, anger, and emotional exhaustion have been documented [13]. These mental disorders are closely associated with substance abuse, and in some cases, the presence of suicidal tendencies has been observed [14,15].

However, since the first two months of 2022, the number of infections and deaths associated with COVID-19 have decreased significantly worldwide due to vaccination campaigns [16]. In Peru, many activities that were carried out virtually during the pandemic began to be carried out again in person [17]. Therefore, in September 2022, university students gradually returned to face-to-face classes after complying with biosafety protocols [18]. Therefore, it is important to assess the mental health of university students after the COVID-19 pandemic [19].

The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being, and not merely the absence of sickness or disease. According to this conceptualization, mental health is a fundamental component of general health. So, enjoying good mental health allows people to face adverse life situations, to work productively, and to develop their potential by contributing to society [20]. Although mental health is a topic of interest in public health, there are critical gaps in the application of treatment (that is, people with severe mental illness who do not receive treatment) that reach up to 73.5% in adults and 82.2% in children and teenagers [21].

In the case of university students, arrival at the university and the transition to university life are considered critical and very stressful changes that could affect their mental health. During this educational period, they leave their homes, they have to adapt to a new social environment, they must face greater academic pressure, and they are exposed to the consumption of alcoholic beverages and psychoactive substances [22]. According to data reported in 21 countries as part of the World Health Organization (WHO) Global Mental Health Survey, approximately 20% of higher education students in all countries had various mental disorders, especially mood disorders [23]. These disorders that affect the mental health of students involve three variables on which this research will focus: de-pression, anxiety, and stress.

Depression is defined as an affective disorder that is evidenced by manifestations of frustration, sadness, and changes in people's mood [24]. It is currently considered one of the most prevalent mental illnesses worldwide and represents a major public health problem [25,26]. Worldwide, it is estimated that it is the fourth cause of disability in terms of the loss of healthy years of life. It affects 350 million people globally, with prevalence between 3.3% and 21.4% [27]. There is a high probability that depression manifests itself at the beginning of adult life, which can occur simultaneously with university studies. This is because young people experience great changes and losses which are foreseen at this stage of development, the main ones being distancing from the family and social circle and adapting to a new routine, aspects that can lead to a situation of crisis [28]. Among the main

symptoms associated with depression are changes in mood, appetite, and sleep; anhedonia; lethargy; feelings of guilt and low self-esteem; difficulty concentrating; agitation; and suicidal ideation [29].

As for anxiety, it constitutes an emotional response that has an activating and facilitating function and in turn plays an adaptive role in situations that are perceived as threatening [30]. It was conceptualized as a set of unpleasant responses that can manifest independently at a cognitive, physiological, and motor level, with little voluntary control in the face of a stimulus or situation, whether internal or external, evaluated by the individual as potentially threatening, although objectively may be not dangerous [31]. Reacting to some life situations with anxiety linked to real fear helps people deal effectively with difficult situations and can even be considered an adaptive response. However, if it occurs in a very intense way, in such a way that control is lost, feelings of helplessness are generated, problems are dealt with inadequately, or it persists for a long time and interferes with people's daily functioning, then it becomes an emotional health problem [32,33]. In the university context, significant levels of anxiety have been identified in a considerable percentage of students and emphasis has been placed on the relevance of their study, given its repercussions on aspects such as academic performance, desertion or dropout, and emotional well-being [34].

Regarding stress, it was conceptualized as a dynamic process that arises from the individual's interaction with their environment, in which the person performs two evaluations: first, assessing whether the current situation benefits or harms them; second, assessing whether they have the necessary resources to face the demand [35]. Stress emerges when it is perceived that the demand exceeds the resources of the individual [36]. In addition, it is argued that stress is an automatic response of the organism to any event that is imposed and that it feels is a threat [37], causing the nervous system to be stimulated and producing psychological (mental) or physiological (physical) changes that occur in a particular way between the person and the situation [38]. In university students, experiencing high levels of academic stress is directly associated with higher levels of de-pression and anxiety [39], self-harm [40], lower self-esteem [41], and academic self-efficacy [42], among other problems related to health and well-being. Likewise, the presence of high levels of stress in university students also has a negative impact in the academic field because it is related to low academic performance [43], decreased academic motivation [44], desertion, and low academic engagement [45].

Very little research has been conducted in the context of the return to face-to-face classes to assess the mental health of university students. One study carried out in China stands out. They reported that levels of depression and anxiety after the COVID-19 pandemic remained at moderate levels [46]. In the same way, in Ecuador, they determined that university students presented symptoms of depression, anxiety, and somatization, a situation that would be explained by the adaptations required when joining the university [47]. Similarly, in Mexico, it was found that the level of stress among students in the post-pandemic context was moderate [48]. As we can see, depression, anxiety, and stress continue to remain at considerable levels, just as during the health emergency, where various studies reported that the predominant level was moderate [49–51].

The objective of the present investigation was to evaluate depression, anxiety, and stress in Peruvian university students upon their return to face-to-face classes. Currently, it is evident that depression, anxiety, and stress have implications for the performance, personal well-being, and quality of life of students. If the described problems are not addressed adequately, there is a greater risk that these problems will persist in the long term and even intensify. This can lead to a higher vulnerability to other mental health disorders and difficulties in adult life. Furthermore, there is a risk of mental health deterioration, poor academic performance, and a low quality of life. In this sense, the present investigation is relevant due to its novelty in the current post-pandemic context, as the evaluation of mental health upon returning to face-to-face classes will allow identifying the students who may be experiencing emotional or psychological difficulties after the pandemic. Based on the

findings, it is expected that university authorities will manage the presence of professionals for the prevention and detection of mental health problems in students. On the other hand, they should encourage various psychoeducational strategies to promote the development of protective factors that allow students to face the various difficulties inherent in university higher education.

## 2. Materials and Methods

A quantitative approach was used, the design was non-experimental, and the type was descriptive of a cross-section [52]. The population was entirely made up of students enrolled in the 2022-II cycle of the universities that provide educational services in the city of Puerto Maldonado, Peru: UNAMAD, UAC and UNSAAC. The sample was made up of 746 students, a number determined via non-probability sampling for convenience. As seen in Table 1, 52.8% of the total participants were women and 47.2% were men; 89.4% were from 16 to 25 years old and 10.6% were older than 25 years old; 67.2% were from UNAMAD, 19.6% from the UAC, and 13.2% from UNSAAC; and 71.4% reported not having family responsibilities while 28.6% reported having family responsibilities. It should be noted that the distribution of the sample according to the university of origin is not balanced due to the different student populations. In UNAMAD, there were 3800 students; in UAC, there were 950 students; while in UNSAAC, there were only 150 students (it is a branch campus and only offers one professional career).

**Table 1.** Sociodemographic characteristics of the sample.

Variables	Sociodemographic Characteristics	<i>n</i> = 746	%
Gender	Male	352	47.2
	Female	394	52.8
Age group	From 16 to 25 years old	667	89.4
	More than 25 years	79	10.6
University of origin	UNAMAD	501	67.2
	UAC	146	19.6
	UNSAAC	99	13.2
Family burden	Yes	213	28.6
	No	533	71.4

One instrument was applied in the data collection process. Before that, questions were asked to gather sociodemographic information. In that sense, students were asked for information related to gender, age group, university of origin, and family responsibilities.

The main data collection instrument was the Depression Anxiety Stress Scale (DASS-21), which was created by Lovibond et al. [53] and adapted to the Peruvian reality by Corrales et al. [49]. It is made up of 21 Likert-type items (it has not happened to me, it has happened to me a little, it has happened to me a bit, and it has happened to me a lot) which are distributed across three categories: depression (items 1, 2, 3, 4, 5, 6, and 7), anxiety (items 8, 9, 10, 11, 12, 13, and 14), and stress (items 15, 16, 17, 18, 19, 20, and 21). Its psychometric properties were determined in a previous study through the process of content validity and reliability [49]. In this sense, it was established that the scale had an adequate level of content validity (Aiken's  $V = 0.801$ ) and reliability ( $\alpha = 0.838$ ). It should be noted that the DASS-21 was chosen to be used due to its advantage of being a brief self-report instrument; being easy to administer and respond to; and showing adequate psychometric properties in validation studies with adults in the general population, clinical samples, and adolescents [54]. In the Peruvian context, it was also validated and demonstrated adequate psychometric properties [55–58]. On the other hand, previous research indicates that the DASS-21 provides an appropriate distinction between anxiety, depression, and stress [59], in comparison with other existing measures that independently assess depression [60], anxiety [61], and stress [62].

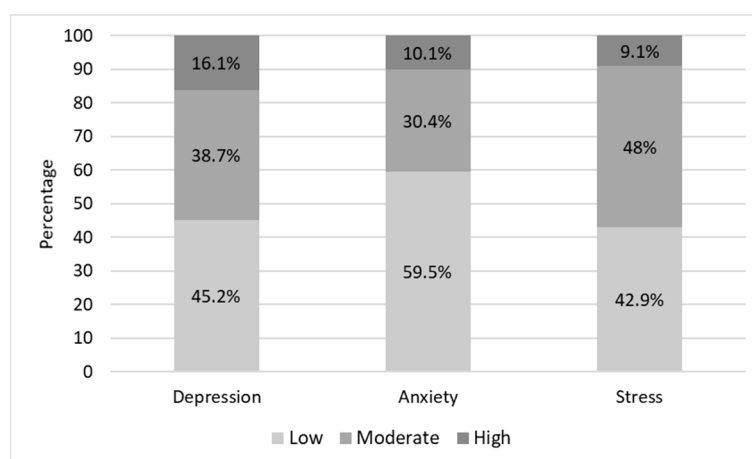
The data collection took place during the months of November and December in 2022 and was conducted virtually. Permits were obtained from the university authorities of the three universities. Later, through the WhatsApp messaging application, the students were invited to participate, and the survey link was sent to them. The messages were sent to all the WhatsApp groups of the courses in which the students are enrolled. The purpose of this procedure was to achieve the highest possible student participation. The objective of the research was explained to them and instructions were provided so that they could develop the items. This procedure lasted approximately 15 min and after corroborating the participation of the 746 students, access to the instruments was disabled.

A data analysis was carried out at a descriptive and inferential level. The descriptive analysis was developed through the use of a figure and three tables that were obtained using the SPSS Software V.25. Afterwards, a correlation analysis was carried out using Spearman's rho coefficient in order to determine if the study variables were related. In addition, ordinal logistic regression was used to determine which sociodemographic factors are associated significantly with depression, anxiety, and stress.

This study was endorsed by the institutional ethics committee. The students were informed about the purpose and nature of the research and provided their informed consent, and the anonymous and voluntary nature of their participation was guaranteed at all times.

### 3. Results

Figure 1 shows the distribution of percentages for the variables depression, anxiety, and stress. It should be noted that the mentioned variables were categorized into three levels (low, moderate, and high) based on the severity with which they were presented, according to previously established cutoff points. The predominant depression level was low (45.2%), followed by the moderate level (38.7%) and the high level (16.1%). Regarding anxiety, the low level also predominated (59.5%), followed by the moderate level (30.4%) and the high level (10.1%). For stress, the moderate level (48%) predominated, followed by the low level (42.9%) and the high level (9.1%). The reported data show that the students presented emotional, cognitive, and physiological reactions that put their physical and emotional health at risk, most likely caused by the academic demands of university higher education.



**Figure 1.** Levels of depression, anxiety, and stress.

According to Table 2, the main symptoms associated with depression reported by the students were feeling discouraged and sad, having limited initiative to do things, not showing positive emotions, and feeling that there was no reason to get excited.



**Table 2.** Symptoms associated with depression that were reported by the students.

Items	Min	Max	M	SD
I have not been able to feel any positive emotion.	0	3	1.16	0.913
It was difficult for me to have initiative to do things.	0	3	1.25	0.935
I felt that there was nothing that would make me get my hopes up.	0	3	1.10	0.965
I have felt discouraged and sad.	0	3	1.43	0.958
I have been unable to get excited about anything.	0	3	1.08	0.934
I have felt that I was not worth much as a person.	0	3	0.99	0.905
I have felt that life has no meaning.	0	3	0.95	0.920

According to Table 3, the main symptoms associated with anxiety reported by the students were being worried about situations in which they could panic and make a fool of themselves, noticing that their mouth was dry, feeling that they were on the verge of panicking, and being scared for no reason.

**Table 3.** Symptoms associated with anxiety that were reported by the students.

Items	Min	Max	M	SD
I have noticed a dry feeling in my mouth.	0	3	1.08	0.923
I had difficulty breathing.	0	3	0.89	0.824
I had tremors.	0	3	0.86	0.858
I have been worried about situations where I might panic and make a fool of myself.	0	3	1.29	0.976
I felt that I was on the verge of panic.	0	3	1.02	0.960
I have noticed alterations in my heart without making physical effort.	0	3	0.95	0.878
I've been feeling scared for no relevant reason.	0	3	1.02	0.954

As seen in Table 4, the main symptoms associated with stress reported by the students were having difficulty relaxing, overreacting to any situation, feeling angry easily, and having difficulty releasing tension.

**Table 4.** Symptoms associated with stress that were reported by the students.

Items	Min	Max	M	SD
It took me a long time to release the tension.	0	3	1.35	0.887
I have tended to overreact to situations.	0	3	1.36	0.974
I have felt that I was expending a large amount of energy.	0	3	1.30	0.946
I have felt agitated.	0	3	1.00	0.941
I have found it difficult to relax.	0	3	1.39	0.953
I have not tolerated anything that prevented me from continuing with what I was doing.	0	3	1.05	0.878
I have tended to get angry easily.	0	3	1.36	0.974

Table 5 shows the data obtained using the Kolmogorov–Smirnov normality test. The magnitude of the test error for the depression, anxiety, and stress variables was below the level of significance ( $p < 0.05$ ), which indicates that the scores did not conform to a normal distribution. Therefore, considering the above and considering the nature of the variables and their level of measurement, the non-parametric Spearman's rho test was decidedly used to see if they were correlated.

**Table 5.** Kolmogorov–Smirnov normality test for the depression, anxiety, and stress variables.

Variables	Kolmogorov–Smirnov		
	Statistic	df.	<i>p</i>
Depression	0.087	746	<0.001
Anxiety	0.103	746	<0.001
Stress	0.111	746	<0.001

Table 6 shows the results of the correlation analysis between the depression, anxiety, and stress variables. There was a high, direct, and significant correlation between depression and anxiety ( $r = 0.850$ ;  $p < 0.05$ ), between depression and stress ( $r = 0.840$ ;  $p < 0.05$ ), and between anxiety and stress ( $r = 0.836$ ;  $p < 0.05$ ).

**Table 6.** Correlation matrix among the depression, anxiety, and stress variables.

Variables	Depression	Anxiety	Stress
Depression	1	-	-
Anxiety	0.850 **	1	-
Stress	0.840 **	0.836 **	1

\*\* The correlation is significant in the 0.01 level (bilateral).

Regarding the multivariate analysis, adjustments were made considering the described variables, and it was determined that females and individuals between the ages of 16 and 25 exhibited higher levels of depression, anxiety, and stress (Table 7).

**Table 7.** Multivariate analysis of sociodemographic factors associated with levels of depression, anxiety, and stress in university students.

Variables	Depression			Anxiety			Stress		
	OR	IC: 95%	<i>p</i>	OR	IC: 95%	<i>p</i>	OR	IC: 95%	<i>p</i>
Gender									
Male	Reference	-		Reference	-		Reference	-	
Female	0.596	0.451–0.787	<0.001	0.531	0.396–0.714	<0.001	0.62	0.467–0.824	<0.001
Age group									
From 16 to 25 years old	2.156	1.311–3.546	0.005	2.397	1.379–4.168	0.002	2.841	1.710–4.720	0.002
More than 25 years.	Reference	-		Reference	-		Reference	-	
University of origin									
UNSAAC	0.927	0.614–1.400	0.720	1.024	0.667–1.573	0.913	0.974	0.639–1.485	0.901
UAC	0.874	0.612–1.248	0.458	1.001	0.688–1.457	0.994	0.778	0.539–1.123	0.181
UNAMAD	Reference	-		Reference	-		Reference	-	
Family burden									
Yes	0.713	0.519–0.980	0.053	0.724	0.519–1.011	0.058	0.694	0.499–0.966	0.103
No	Reference	-		Reference	-		Reference	-	

#### 4. Discussion

In recent years, interest in conducting studies related to the mental health of university students has increased. Psychosocial variables are considered determinants of emotional state and personal well-being, factors necessary for adequate academic and social development. For this reason, in the present investigation, depression, anxiety, and stress were evaluated in Peruvian university students when they returned to face-to-face classes.

It was found that the students were characterized by presenting low levels of depression. The main symptoms reported were being discouraged and sad, having a limited initiative to do things, not showing positive emotions, and feeling that there was no reason to get excited. Similar results were found in Argentina, where they concluded that university students had low levels of depression in the context of face-to-face education after the pandemic [63]. It is also consistent with the results of an investigation carried out in Ecuador, where they determined that university students suffered from low levels of depression when they joined face-to-face education [47].

Depression is considered an affective disorder and involves a wide range of emotional problems. If students are not treated in a timely manner, it can have a negative impact at the personal, family, and academic levels. There is also the possibility that they acquire habits, such as the consumption of alcohol or psychoactive substances, to overcome it. On the other hand, major depressive disorder has been found to be one of the main causes of suicidal behavior in young people [64].

Regarding anxiety, it was found that the predominant level was also low. The main symptoms reported by the students were being worried about situations in which they might panic and embarrass themselves, noticing that their mouth was dry, feeling that they were on the verge of panic, and being scared for no reason. The result is consistent with the findings of an investigation carried out in Venezuela, where they concluded that some students presented anxiety when returning to face-to-face classes because they feared they could be infected [65]. However, the level of anxiety reported in this study was lower than that found in a study carried out in Bangladesh, where they analyzed the presence of anxiety in university students and determined that more than 40% of them had high levels of anxiety [51]. The discrepancy between the findings could be explained by sociodemographic aspects and the academic conditions where the data were obtained.

Anxiety consists of an emotional response that facilitates adapting to situations that are considered threatening [30]. Likewise, it is pointed out that students who suffer from anxiety often present learning difficulties and their academic performance is usually less adequate. Among the main symptoms that characterize this mental condition are chills in the hands and lips, dry mouth, frequent urination, and sleep disturbances [66]. However, it should be noted that occasional anxiety is common, but when it involves intense, persistent, and excessive fears and worries, it can constitute an anxiety disorder.

Regarding stress, it was found that the predominant stress level was moderate, characterized mainly by the presence of cognitive, emotional, and physiological reactions that would affect the emotional state of university students. The main symptoms reported were having difficulty relaxing, overreacting to any situation, getting angry easily, and having difficulty releasing tension. The main factor associated with the presence of stress in students are the continuous academic demands of university education. Similar results were obtained in Mexico, where they found that the stress level of students in the post-pandemic context was moderate [48]. Likewise, in Bolivia, they evaluated the emotional situation of university students at the end of the pandemic and found that the predominant level of stress was also moderate [67].

Stress involves an adaptive behavior or response to a variety of external and internal pressures, that is, it is an emergency process, being important for survival [68]. In the case of university students, in order to control the experience of stress, they can try to alter their environment or learn ways to modify their way of reacting to a specific situation. Therefore, stress coping mechanisms can help a person reach a point of adaptation with their environment [69].

Another interesting finding in the present investigation was that depression was directly and significantly related to anxiety and stress. In addition, anxiety was also directly and significantly related to stress. These findings coincide with what was reported in a study carried out in Spain, where they evaluated the mental health of university students and determined that the three variables were directly and significantly related [70]. In the same way, it converges with the results of a study carried out in Malaysia, in which the emotional state of students from private universities was analyzed and it was found that there was a direct and significant relationship between depression, anxiety, and stress [71].

This study also found that women presented higher levels of depression, anxiety, and stress than men. This could be explained from two perspectives. First, women tend to externalize emotional and physiological manifestations in stressful contexts to a greater extent than men [41]. Second, in addition to their academic responsibilities, women take on additional tasks at home, such as family responsibility, childcare, and other domestic activities [72]. There is research to support our finding. In Brazil, they determined that



one of the factors associated with depression, anxiety, and stress was gender. There was a higher prevalence of these mental disorders in women than in men [73]. An investigation was also carried out in Spain which found that gender was one of the variables associated with depression, anxiety, and stress in university students [74]. Similarly, in Bangladesh, they also analyzed the association of depression, anxiety, and stress with sociodemographic variables. They found that women were more likely to suffer from these mental health problems [51].

A final finding of this paper was that younger students had higher levels of depression, anxiety, and stress than older students. This was most likely due to the fact that many of the youngest students were adapting to the transition from basic education to university education and the continuous academic demands that are generated in this context. On the other hand, adult students would have formally or informally developed some strategies to face the difficulties that characterize university education, such as depression, anxiety, and stress [75]. Similar results were obtained in other investigations, which also found that age was a factor associated with the prevalence of depression, anxiety, and stress [76–78]. As we can see, age is an important factor to consider when studying the prevalence of depression, anxiety, and stress, and it can be useful to identify population groups that may need particular attention in terms of prevention, diagnosis, and treatment.

Mental health problems, including depression, anxiety, and stress, are interconnected phenomena involving negative affect, emotional distress, and physiological changes [79]. Furthermore, their prevalence has been associated with a higher level of morbidity among students worldwide. Therefore, it can be considered a research topic for researchers interested in the mental health and well-being of the student population [66]. Hence, it is important for educational institutions, researchers, and society at large to pay attention to these issues and to take measures to promote mental health in the student environment. This will help ensure healthy and successful academic, personal, and emotional development.

This research addresses topics related to the mental health of university students during the return to face-to-face classes. This has been infrequently studied, making it relevant; however, it is necessary to specify some limitations. First, the sample size is relatively small and homogeneous, which implies caution when interpreting the results. Second, the findings are based entirely on data obtained from self-administered instruments, which would lead to social desirability biases. In this sense, it is expected that future research will expand the size of the sample and include students from other universities and with various sociocultural characteristics. Likewise, it would be important to use data collection instruments that complement those that were applied to give greater objectivity to the process.

## 5. Conclusions

Currently, mental health problems are one of the main causes of disability and a major public health problem worldwide due to the difficulties in therapeutic management and the increase in their prevalence in recent years. Under this premise, mental illnesses such as depression, anxiety, and stress have been considered important indicators of mental health in the population, and if they are not treated promptly, they can have a negative impact on quality of life and personal well-being.

In the present investigation, it was concluded that Peruvian university students presented low levels of depression and anxiety. However, they showed moderate levels of stress. The main symptoms associated with depression, anxiety, and stress were feeling down and sad, being worried about situations in which they might panic and make a fool of themselves, and having difficulty relaxing. It was also determined that the three variables were directly and significantly related. Finally, it was found that women and those 16 to 25 years old suffered from higher levels of depression, anxiety, and stress than men and those older than 25 years old.

We consider that the described findings are a contribution to understanding the pandemic and its psychosocial consequences, as it will allow for the expansion and comple-

mentation of existing knowledge. Similarly, by addressing the topic of depression, anxiety, and stress in the university population, we are directly contributing to the achievement of the third Sustainable Development Goal, “Good Health and Well-being”. Similarly, a key topic in the Global Mental Health Agenda is being addressed. In this regard, we aim to improve the emotional well-being of young people, who are considered a vulnerable group susceptible to various mental health problems. Among the main alternative solutions is the implementation of strategies to assess and prevent mental illnesses, as well as promote better mental health among future professionals, with the aim of improving their performance and personal well-being.

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## References

1. Quiroz, C.; Pareja, A.; Valencia, E.; Enríquez, Y.; De León, J.; Aguilar, P. Un nuevo coronavirus, una nueva enfermedad: COVID-19. *Horiz. Med.* **2020**, *20*, e1208. [\[CrossRef\]](#)
2. Lizcano, F.; Arroyave, F. El ambiente, los desplazamientos y el riesgo cardiovascular en la pandemia por COVID-19. *Rev. Colomb. Cardiol.* **2020**, *27*, 160–165. [\[CrossRef\]](#)
3. Murillo, F.; Duk, C. El Covid-19 y las brechas educativas. *Rev. Latinoam. Educ. Incl.* **2020**, *14*, 11–13. [\[CrossRef\]](#)
4. Arias, H.; Guadalupe, J.; Pérez, D.; Artola, V.; Cruz, J. Emotional state of teachers and university administrative staff in the return to face-to-face mode. *Behav. Sci.* **2022**, *12*, 420. [\[CrossRef\]](#) [\[PubMed\]](#)
5. Estrada, E.; Gallegos, N.; Paredes, Y.; Quispe, R.; Córdova, F. Satisfacción de los estudiantes peruanos con las clases virtuales durante la pandemia COVID-19. *Univ. Soc.* **2022**, *14*, 678–685. Available online: <https://rus.ucf.edu/cu/index.php/rus/article/view/3499> (accessed on 25 April 2023).
6. Yoshimura, K.; Morita, Y.; Konomi, K.; Ishida, S.; Fujiwara, D.; Kobayashi, K.; Tanaka, M. A web-based survey on various symptoms of computer vision syndrome and the genetic understanding based on a multi-trait genome-wide association study. *Sci. Rep.* **2021**, *11*, 9446. [\[CrossRef\]](#) [\[PubMed\]](#)
7. Huanca-Arohuana, J.; Supo, F.; Sucari, R.; Supo, L. El problema social de la educación virtual universitaria en tiempos de pandemia, Perú. *Innovaciones Educ.* **2020**, *22*, 115–128. [\[CrossRef\]](#)
8. Mejía, C.; Rodríguez, J.; Carbajal, M.; Pérez, P.; Porras, L.; Sifuentes, J.; Contreras, J.; Carranza, R.; Ruiz, P. Fatalismo ante la posibilidad de contagio por el coronavirus: Generación y validación de un instrumento (F-COVID-19). *Kasmera* **2020**, *48*, e48118032020. [\[CrossRef\]](#)
9. Marahwa, P.; Makota, P.; Chikomo, D.; Chakanyuka, T.; Ruvai, T.; Osafo, K.; Huang, T.; Chen, L. The psychological impact of COVID-19 on university students in China and Africa. *PLoS ONE* **2022**, *17*, e0270824. [\[CrossRef\]](#)
10. Estrada, E.; Bautista, J.; Córdova, L.; Ticona, E.; Mamani, H.; Huaman, J. Mental health of university students when returning to face-to-face classes: A cross-sectional study. *Behav. Sci.* **2023**, *13*, 438. [\[CrossRef\]](#)
11. Ramírez, J.; Castro, D.; Lerma, C.; Yela, F.; Escobar, F. Mental health consequences of the COVID-19 pandemic associated with social isolation. *Rev. Colomb. Anestesiología.* **2020**, *48*, e301. [\[CrossRef\]](#)
12. Rabiun Abubakar, A.; Tor, M.A.; Ogidigo, J.; Sani, I.H.; Rowaiye, A.B.; Ramalan, M.A.; Najib, S.Y.; Danbala, A.; Adamu, F.; Abdullah, A.; et al. Challenges and implications of the COVID-19 pandemic on mental health: A systematic review. *Psych* **2022**, *4*, 435–464. [\[CrossRef\]](#)

13. Broche, Y.; Fernández, E.; Reyes, D. Consecuencias psicológicas de la cuarentena y el aislamiento social durante la pandemia de COVID-19. *Rev. Cubana Salud Pública* **2020**, *46*, e2488. Available online: <https://revsaludpublica.sld.cu/index.php/spu/article/view/2488> (accessed on 23 April 2023).
14. Lok, K.; Fong, D.; Wong, J.; Ho, M.; Choi, E.; Pandian, V.; Davidson, P.; Duan, W.; Tarrant, M.; Lee, J.; et al. International survey for assessing COVID-19's impact on fear and health: Study protocol. *BMJ Open* **2021**, *11*, e048720. [CrossRef]
15. Terry, Y.; Bravo, N.; Elias, K.; Espinosa, I. Aspectos psicosociales asociados a la pandemia por COVID-19. *Rev. Inf. Cient.* **2020**, *99*, 585–595. Available online: <https://revinformcientifica.sld.cu/index.php/ric/article/view/3113> (accessed on 29 April 2023).
16. Taborda, A.; Murillo, D.; Moreno, C.; Taborda, P.; Fuquen, M.; Díaz, P.; Londoño, D. Análisis de impacto presupuestal de la vacunación contra COVID-19 en América Latina. *Rev. Panam. Salud Pública* **2022**, *46*, e5. [CrossRef]
17. Estrada, E.; Paricahua, J. Compromiso académico en los estudiantes universitarios de la Amazonía Peruana durante el contexto pospandemia. *Rev. Digit. Investig. Docencia Univ.* **2023**, *17*, e1664. [CrossRef]
18. Morales, J. El retorno a la presencialidad en las universidades del Perú. *Health Care Glob. Health* **2022**, *6*, 4–5. Available online: <http://revista.uch.edu.pe/index.php/hgh/article/view/196> (accessed on 1 August 2023).
19. McLafferty, M.; Brown, N.; McHugh, R.; Ward, C.; Stevenson, A.; McBride, L.; Brady, J.; Bjourson, A.; O'Neill, S.; Walsh, C.; et al. Depression, anxiety and suicidal behaviour among college students: Comparisons pre-COVID-19 and during the pandemic. *Psychiatry Res. Commun.* **2021**, *1*, 100012. [CrossRef]
20. Etienne, C. Salud mental como componente de la salud universal. *Rev. Panam. Salud Pública* **2018**, *42*, e140. [CrossRef]
21. Organización Panamericana de la Salud. *Salud en las Américas, Edición 2017. Resumen: Panorama Regional y Perfiles de País*; OPS: Washington, DC, USA, 2017.
22. Bantjes, J.; Lochner, C.; Saal, W.; Roos, J.; Taljaard, L.; Page, D.; Auerbach, R.; Mortier, P.; Bruffaerts, R.; Kessler, R.; et al. Prevalence and sociodemographic correlates of common mental disorders among first-year university students in post-apartheid South Africa: Implications for a public mental health approach to student wellness. *BMC Public Health* **2019**, *19*, 922. [CrossRef]
23. Auerbach, R.; Alonso, J.; Axinn, W.; Cuijpers, P.; Ebert, D.; Green, J.; Hwang, I.; Kessler, R.; Liu, H.; Mortier, P.; et al. Mental disorders among college students in the World Health Organization World Mental Health Surveys. *Psychol. Med.* **2016**, *46*, 2955–2970. [CrossRef]
24. Berenzon, S.; Lara, M.; Robles, R.; Medina, M. Estado del conocimiento y la necesidad de políticas públicas y planes de acción en México. *Salud Publica Mex.* **2013**, *55*, 74–80. [CrossRef]
25. Vargas, S. Factores que inciden en la depresión en estudiantes universitarios: Una revisión sistemática. *Conrado* **2021**, *17*, 387–394. Available online: <https://conrado.ucf.edu.cu/index.php/conrado/article/view/1970> (accessed on 21 April 2023).
26. Bresolin, J.; Dalmolin, G.; Vasconcellos, S.; Barlem, E.; Andolhe, R.; Magnago, T. Depressive symptoms among healthcare undergraduate students. *Rev. Latinoam. Enferm.* **2020**, *28*, e3239. [CrossRef]
27. Martínez, M.; Muñoz, G.; Rojas, K.; Sánchez, J. Prevalencia de síntomas depresivos en estudiantes de la licenciatura en Medicina de Puebla, México. *Aten. Fam.* **2016**, *23*, 145–149. [CrossRef]
28. Souza, M.; Caldas, T.; De Antoni, C. Fatores de adoecimento dos estudantes da área da saúde: Uma revisão sistemática. *Psicol. Saúde Deb.* **2017**, *3*, 99–126. [CrossRef]
29. Ramos, D.; Alves, R.; De Pinho, L. Sintomas de depressão em universitários de medicina. *Bol. Acad. Paul. Psicol.* **2019**, *39*, 81–95. Available online: <http://pepsic.bvsalud.org/pdf/bapp/v39n96/v39n96a09.pdf> (accessed on 1 August 2023).
30. Castillo, C.; Chacón, T.; Díaz, G. Ansiedad y fuentes de estrés académico en estudiantes de carreras de la salud. *Investig. Educ. Méd.* **2016**, *5*, 230–237. [CrossRef]
31. Cano, A.; Miguel, J. Evaluación de la ansiedad desde un enfoque interactivo y multidimensional. El inventario de situaciones y respuestas de ansiedad (ISRA). *Psicol. Contemp.* **1999**, *6*, 14–21.
32. Estrada, E.; Mamani, H. Procrastinación académica y ansiedad en estudiantes universitarios de Madre de Dios, Perú. *Apunt. Univ.* **2020**, *10*, 322–337. [CrossRef]
33. Morales, E. La ansiedad social en el ámbito universitario. *Rev. Griot* **2013**, *4*, 35–48. Available online: <https://revistas.upr.edu/index.php/griot/article/view/1870> (accessed on 25 April 2023).
34. Flores, M.; Chávez, M.; Aragón, L. Situaciones que generan ansiedad en estudiantes de Odontología. *J. Behav. Health Soc. Issues* **2016**, *8*, 35–41. [CrossRef]
35. Lazarus, R.; Folkman, S. *Stress, Coping and Adaptation*; Springer: New York, NY, USA, 1984.
36. Cassaretto, M.; Vilela, P.; Gamarra, L. Estrés académico en universitarios peruanos: Importancia de las conductas de salud, características sociodemográficas y académicas. *Liberabit* **2021**, *27*, e482. [CrossRef]
37. Uribe, J.; Patlán, J.; García, A. Manifestaciones psicosomáticas, compromiso y burnout como consecuentes del clima y la cultura organizacional: Un análisis de ruta (path analysis). *Contad. Adm.* **2015**, *60*, 447–467. [CrossRef]
38. Alvites, C. Estrés docente y factores psicosociales en docentes de Latinoamérica, Norteamérica y Europa. *Propós. Represent.* **2019**, *7*, 141–178. [CrossRef]
39. Damásio, I.; Pecci, N.; Kleinsorge, R.; Granero, A.; Cerrato, S.; Da Silva, O.; Lucchetti, G. Depression, stress and anxiety in Medical students: A cross-sectional comparison between students from different semesters. *Rev. Assoc. Med. Bras.* **2017**, *63*, 21–28. [CrossRef]

40. Kiekens, G.; Claes, L.; Demyttenaere, K.; Auerbach, R.; Green, J.; Kessler, R.; Mortier, P.; Nock, M.; Bruffaerts, R. Lifetime and 12-month nonsuicidal self-injury and academic performance in college freshmen. *Suicide Life Threat. Behav.* **2016**, *46*, 563–576. [CrossRef]
41. Chávez, J.; Peralta, R. Estrés académico y autoestima en estudiantes de enfermería, Arequipa-Perú. *Rev. Cienc. Soc.* **2019**, *25*, 384–399. [CrossRef]
42. Ye, L.; Posada, A.; Liu, Y. The moderating effects of gender on the relationship between academic stress and academic self-efficacy. *Int. J. Stress. Manag.* **2018**, *25*, 56–61. [CrossRef]
43. Oketch, J.; Okunya, L. The Relationship between levels of stress and academic performance among University of Nairobi students. *Int. J. Learn. Dev. IJLD* **2018**, *8*, 1–28. [CrossRef]
44. Çetinkaya, T. The Analysis of academic motivation and career stress relationships of the students in Department of Physical Education and Sport. *Int. Educ. Stud.* **2019**, *12*, 24–35. [CrossRef]
45. Pascoe, M.; Hetrick, S.; Parker, A. The impact of stress on students in secondary school and higher education. *Int. J. Adolesc. Youth* **2020**, *25*, 104–112. [CrossRef]
46. Jamshaid, S.; Bahadar, N.; Jamshed, K.; Rashid, M.; Imran, M.; Tian, L.; Umar, M.; Feng, X.; Khan, I.; Zong, M. Pre- and post-pandemic (COVID-19) mental health of international students: Data from a longitudinal study. *Psychol. Res. Behav. Manag.* **2023**, *16*, 431–446. [CrossRef]
47. Arellano, P. *Salud Mental en Jóvenes Universitarios que Retornan a la Presencialidad por Pandemia COVID-19*; UTI: Ambato, Ecuador, 2022. Available online: <http://repositorio.uti.edu.ec/handle/123456789/3997> (accessed on 19 April 2023).
48. Calixto, P.; Hernández, J.; Gaxiola, M. Valoración del estrés académico postpandemia COVID-19 en estudiantes del nivel medio superior. *Cienc. Lat.* **2023**, *7*, 1553–1573. [CrossRef]
49. Corrales, I.; Villegas, J.; Carranza, R.; Mamani, O. Depresión, ansiedad y estrés en estudiantes cubanos de Estomatología durante el rebrote de la COVID-19. *Rev. Cub. Med. Mil.* **2022**, *51*, e02201720. Available online: <https://revmedmilitar.sld.cu/index.php/mil/article/view/1720/1227> (accessed on 20 April 2023).
50. Sánchez, H.; Yarlequé, L.; Alva, L.; Nuñez, E.; Arenas, C.; Matalinares, M.; Gutiérrez, E.; Egoavil, I.; Solis, J.; Fernandez, C. Anxiety, depression, somatization and experiential avoidance indicators in Peruvian university students in quarantine by COVID-19. *Rev. Fac. Med. Hum.* **2021**, *21*, 346–353. [CrossRef]
51. Hossain, M.; Alam, M.; Masum, M. Prevalence of anxiety, depression, and stress among students of Jahangirnagar University in Bangladesh. *Health Sci. Rep.* **2022**, *5*, e559. [CrossRef]
52. Hernández, R.; Mendoza, C. *Metodología de la Investigación: Las Rutas Cuantitativa, Cualitativa y Mixta*; McGraw-Hill: Mexico, DF, Mexico, 2018.
53. Lovibond, P.; Lovibond, S. The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behav. Res. Ther.* **1995**, *33*, 335–343. [CrossRef] [PubMed]
54. González, J.; Pagán, O.; Pérez, E. Depression, Anxiety and Stress Scales (DASS-21): Construct validity problem in Hispanics. *Eur. J. Investig. Health Psychol. Educ.* **2020**, *10*, 375–389. [CrossRef]
55. Gutiérrez, M.; Cáceres, I. Impacto de la pandemia COVID-19, en la salud mental de pacientes que acuden a una clínica privada en ventanilla. *Ágora Rev. Cient.* **2020**, *7*, 114–119. [CrossRef]
56. Tapullima, C.; Chávez, B. Escala de estrés, ansiedad y depresión (DASS-21): Propiedades psicométricas en adultos de la provincia de San Martín. *PsiqueMag* **2021**, *11*, 73–88. [CrossRef]
57. Contreras, C.; Olivares, L.; De la Cruz, C. Escalas abreviadas de Depresión, Ansiedad y Estrés (DASS-21): Validez, fiabilidad y equidad en adolescentes peruanos. *Rev. Psicol. Clín. Niños Adolesc.* **2021**, *8*, 24–30. Available online: <https://dialnet.unirioja.es/servlet/articulo?codigo=7802645> (accessed on 30 April 2023).
58. Vargas, M.; Cárdenas, S.; Herrera, C. Un recurso para atención primaria de la salud mental. DASS-21, propiedades psicométricas. *Rev. Peru. Investig. Salud* **2022**, *6*, 141–148. [CrossRef]
59. Antúnez, Z.; Vinet, E. Escalas de Depresión, Ansiedad y Estrés (DASS-21): Validación de la versión abreviada en estudiantes universitarios chilenos. *Ter. Psicol.* **2012**, *30*, 49–55. [CrossRef]
60. Beck, A.; Steer, R.; Brown, G. *BDI-II. Beck Depression Inventory*, 2nd ed.; The Psychological Corporation: San Antonio, TX, USA, 1996.
61. Beck, A.; Epstein, N.; Brown, G.; Steer, R. An inventory for measuring clinical anxiety: Psychometric properties. *J. Consult. Clin. Psychol.* **1988**, *56*, 893–897. [CrossRef]
62. Cohen, S.; Kamarck, T.; Mermelstein, R. A global measure of perceived stress. *J. Health Soc. Behav.* **1983**, *24*, 385–396. [CrossRef]
63. Seleme, M.; Carbonetti, M.; Retamar, A.; Moreno, S.; Carbonetti, M. Prevalencia de síntomas de depresión, ansiedad y estrés en estudiantes de medicina de la Universidad Nacional de Córdoba en el retorno a la presencialidad. *Rev. Fac. Cien. Méd. Córdoba* **2022**, *79*, 23. Available online: <https://revistas.unc.edu.ar/index.php/med/article/view/39110> (accessed on 29 April 2023).
64. Chomon, R. Depression and suicidal ideation among medical students in a private medical college of Bangladesh. A cross sectional web-based survey. *PLoS ONE* **2022**, *17*, e0265367. [CrossRef]
65. Csoban, E.; La Fontaine, G.; Da Silva, J. Estudiantes de la UCAB ante la pandemia de COVID-19: El regreso a las clases presenciales. *Analóg. Comport.* **2023**, *22*, 48–56. Available online: <https://revistasenlinea.saber.ucab.edu.ve/index.php/analogias/article/view/5956> (accessed on 25 April 2023).



66. Asif, S.; Mudassar, A.; Shahzad, T.; Raouf, M.; Pervaiz, T. Frequency of depression, anxiety and stress among university students. *Pak. J. Med. Sci.* **2020**, *36*, 971–976. [CrossRef] [PubMed]
67. Ocampo, D.; Correa, A. Situación emocional y resiliencia de estudiantes universitarios, pos-pandemia de la COVID-19. Norte de Potosí, Bolivia. *Societec* **2022**, *6*, 17–32. [CrossRef]
68. Dorsch, F. *Diccionario de Psicología*; Universitaria: Barcelona, Spain, 1985.
69. Cardozo, L. El estrés en el profesorado. *Rev. Investig. Psicol.* **2016**, *15*, 75–98. Available online: [http://www.scielo.org.bo/pdf/rip/n15/n15\\_a06.pdf](http://www.scielo.org.bo/pdf/rip/n15/n15_a06.pdf) (accessed on 17 April 2023).
70. Ramón, E.; Martínez, B.; Granada, J.; Echániz, E.; Pellicer, B.; Juárez, R.; Guerrero, S.; Sáez, M. Conducta alimentaria y su relación con el estrés, la ansiedad, la depresión y el insomnio en estudiantes universitarios. *Nutr. Hosp.* **2019**, *36*, 1339–1345. [CrossRef]
71. Ooi, P.; Khor, K.; Tan, C.; Ong, D. Depression, anxiety, stress, and satisfaction with life: Moderating role of interpersonal needs among university students. *Front. Public Health* **2022**, *10*, 958884. [CrossRef]
72. Estrada, E.; Quispe, J.; Velásquez, L.; Gallegos, N. Trastornos mentales comunes en estudiantes de una institución de formación inicial docente. *Gac. Med. Caracas* **2023**, *131*, 59–66. [CrossRef]
73. Rezende, A.; Nihei, O. Depression, anxiety and stress symptoms in Brazilian university students during the COVID-19 pandemic: Predictors and association with life satisfaction, psychological well-being and coping strategies. *PLoS ONE* **2021**, *16*, e0258493. [CrossRef]
74. Ramón, E.; Gea, V.; Granada, J.; Juárez, R.; Pellicer, B.; Antón, I. The prevalence of depression, anxiety and stress and their associated factors in college students. *Int. J. Environ. Res. Public Health* **2020**, *17*, 7001. [CrossRef]
75. Estrada, E.; Gallegos, N.; Mamani, H.; Zuloaga, M.; Mamani, M. Estrés académico en estudiantes universitarios peruanos en tiempos de la pandemia del COVID-19. *AVFT Arch. Venez. Farmacol. Ter.* **2021**, *40*, 88–93. [CrossRef]
76. Usher, W.; Curran, C. Predicting Australia’s university students’ mental health status. *Health Promot. Int.* **2019**, *34*, 312–322. [CrossRef]
77. Hoang, V.; Nguyen, H. Factors associated with depression, anxiety, and stress symptoms among men in a rural area in Vietnam during COVID-19. *Front. Psychiatry* **2022**, *13*, 987686. [CrossRef] [PubMed]
78. Stallman, H. Psychological distress in university students: A comparison with general population data. *Aust. Psychol.* **2010**, *45*, 249–257. [CrossRef]
79. Batista, P.; Meireles, A.; Da Silva, I.; Silva, M.; De Paula, W.; Silva, C. Síntomas de depresión, ansiedad y estrés en estudiantes del área de la salud e impacto en la calidad de vida. *Rev. Lat.-Am. Enferm.* **2023**, *31*, e3884. [CrossRef]

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