

## Emotional exhaustion in Peruvian university students in the context of the Covid-19 pandemic

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### **Abstract**

The present research aimed to describe the emotional exhaustion of Peruvian university students from the professional career of Education in the context of the Covid-19 pandemic. The approach was quantitative, the design was non-experimental, and the type was descriptive, cross-sectional. The sample consisted of 232 students, to whom the Emotional Exhaustion Scale (2007) was applied, an instrument with adequate levels of reliability and validity. According to the results, the majority of students showed high levels of emotional fatigue and it was determined that the prevalence of this variable was significantly associated with the sex and age group of the students ( $p < 0.05$ ). It was concluded the need for experts of the Psychopedagogy area of the university to identify students who suffer from emotional fatigue and apply preventive programs to reduce the prevalence of this phenomenon and recover the students' psychological well-being.

### **Keywords**

emotional exhaustion, students, university education, Covid-19.

### **Esgotamento emocional em estudantes universitários peruanos**

**no contexto da pandemia Covid-19**

### **Resumo**

A presente pesquisa teve como objetivo descrever o esgotamento emocional de estudantes universitários peruanos da carreira profissional de Educação no contexto da pandemia de Covid-19. A abordagem foi quantitativa; o desenho, não experimental; e o tipo descritivo, transversal. A amostra foi composta por 232 alunos, aos quais foi aplicada a Escala de Cansaço Emocional (2007), instrumento com níveis adequados de confiabilidade e validade. De acordo com os resultados, a maioria dos estudantes apresentou níveis elevados de esgotamento emocional e verificou-se que a prevalência desta variável foi significativamente associada ao sexo e faixa etária dos alunos ( $p < 0,05$ ). Concluiu-se que é necessário que a área de Psicopedagogia da universidade realize a detecção oportunamente dos alunos que sofrem de esgotamento emocional para que recuperem o seu bem-estar psicológico e aplique programas preventivos para reduzir a prevalência desse fenômeno.

### **Palavras-chave**

esgotamento emocional, estudantes, formação universitária, Covid-19.

**Cansancio emocional en estudiantes universitarios peruanos  
en el contexto de la pandemia de Covid-19**

**Resumen**

La presente investigación tuvo como objetivo describir el cansancio emocional de los estudiantes universitarios peruanos de la carrera profesional de Educación en el contexto de la pandemia de Covid-19. El enfoque fue cuantitativo; el diseño, no experimental; y el tipo, descriptivo transversal. La muestra fue conformada por 232 estudiantes, a quienes se les aplicó la Escala de Cansancio Emocional (2007), instrumento con adecuados niveles de confiabilidad y validez. Según los resultados, la mayoría de estudiantes presentaba altos niveles de cansancio emocional y se pudo determinar que la prevalencia de dicha variable se asociaba de manera significativa al sexo y grupo etario de los estudiantes ( $p<0,05$ ). Se concluyó que es necesario que el área de Psicopedagogía de la universidad realice la detección oportuna de los estudiantes que padecan de cansancio emocional para que recuperen su bienestar psicológico y aplique programas preventivos para disminuir la prevalencia de dicho fenómeno.

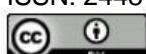
**Palabras clave**

cansancio emocional, estudiantes, educación universitaria, Covid-19.

## 1 Introduction

At the end of 2019, cases of an atypical type of pneumonia associated with a new coronavirus named SARS-CoV-2, which causes Covid-19, were reported in China (MOJICA; MORALES, 2020; QUIROZ *et al.*, 2020). Due to the exponential increase in the number of cases worldwide, the disease was classified by World Health Organization (WHO) as a global pandemic in March 2020 (CAMPOS; ALVES, 2021; QAZI *et al.*, 2020), a situation that put to test health system in all countries (BUITRAGO *et al.*, 2020). Naturally, this context had a significant impact on society due to the repercussions in different areas, such as health, society, economy, education, culture among others (LIZCANO; ARROYAVE, 2020; MURILLO; DUK, 2020).

In Peru, the Covid-19 pandemic made the government in power to issue a national state of emergency and mandatory social isolation on March 15, 2020, as an exceptional measure to avoid more infections with the virus (MIÑAN *et al.*, 2021). Focusing on the educational sphere, this measurement caused the interruption of academic activities in all educational institutions - basic and high - (ESTRADA *et al.*, 2020; MEJÍA *et al.*, 2021) and the teaching-learning category to migrate from on-site to a virtual environment (CRUZ; TOLEDO; MENDOZA, 2021; ESTRADA; MAMANI,



2021; POSTIGO; ARIAS; RAMOS, 2021). However, this compulsory educational reform caused a lot of concern among teachers and students, since most of them were not used nor prepared to face this new educational methodology (ESTRADA *et al.*, 2021; SUÁREZ *et al.*, 2021). Though the previous statement, the delivery of educational service continued since it was necessary and the educational community could not be stopped nor affected (ORDORIKA, 2020; TOQUERO, 2020).

However, it is known that the college context has demands and academic, personal, and social demands for students (BRAND *et al.*, 2014). Besides that, and as previously said, the pandemic made the situation more complex, since they also had to deal with some emergent problems, such as accessibility and connectivity (MOLINA *et al.*, 2021), fear of infection for Covid-19, and economic precariousness (ORELLANA, C.; ORELLANA, L., 2020), factors that increased their stress levels and favored the prevalence of a very common phenomenon at times like these: emotional fatigue.

Emotional exhaustion has been widely studied in the working environment, however, in this research, it will be approached inside the academic environment, once it is not exclusively faced by workers, but also by students, especially in higher education (FÍNEZ; MORÁN, 2014). Following the theoretical model proposed by Maslach, Schaufeli, and Leiter (2001), emotional exhaustion (caused by excessive academic demands), depersonalization (attitude of indifference towards academic activities), and dissatisfaction with the realization (consciousness of inefficiency as a student) are factors that make academic exhaustion, but the most predominant is emotional exhaustion since the other mentioned factors were not observed significantly or recurrently in them (BARRETO; SALAZAR, 2021; DOMÍNGUEZ, 2013, 2014; LANGADE *et al.*, 2016; LLEDÓ *et al.*, 2014).

Emotional exhaustion is described as energy depletion, fatigue, and exhaustion, both physical and psychological, that students experience (VIZOSO; ARIAS, 2018), caused by excessive psychological demands that could lead individuals to feel their inner resources are being wasted (ALSHARIF, 2020). It is characterized by the manifestation of somatic and psychological symptoms and feelings of not having enough energy to perform and fulfill the assigned academic responsibilities. Its prevalence might affect students' academic, personal, familiar, and social dimensions. Concerning this topic,

many studies have reported that it may cause anxiety, depression, feelings of self-guilty, rumination, catastrophes, and suicidal ideation (CABALLERO; GONZALES; PALACIO, 2015; DOMÍNGUEZ; MERINO, 2018; JIMÉNEZ *et al.*, 2019; YOUSSEF, 2016). They also found inverse associations with academic self-efficacy, self-esteem, engagement, and emotional intelligence (DOMÍNGUEZ, 2018).

Researches in different latitudes sought to know the prevalence of emotional exhaustion in college students and managed to identify that there was a considerable prevalence (BARRETO; SALAZAR, 2021; CASTRO *et al.*, 2019; ESTRADA; GALLEGOS; MAMANI, 2021; FERNÁNDEZ; LIÉBANA; MORÁN, 2017; HERRERA; MOHAMED; CEPERO, 2016; LEE *et al.*, 2020; LI *et al.*, 2020; OSORIO; PARRELLO; PRADO, 2020; SALAZAR *et al.*, 2021; SEPERAK; FERNÁNDEZ; DOMÍNGUEZ, 2021). On the other hand, some researches discovered that levels of emotional exhaustion were linked to some sociodemographic variables, such as students' genre (BARRETO; SALAZAR; SALAZAR, 2021; DOMÍNGUEZ *et al.*, 2018; ESTRADA; GALLEGOS, 2020; FERNÁNDEZ; LIÉBANA; MORÁN, 2017; HERRERA; MOHAMED; CEPERO, 2016; LLEDÓ *et al.*, 2014) and age range (AGUAYO *et al.*, 2019; BOLAÑOS; RODRÍGUEZ, 2016; ESTRADA; GALLEGOS, 2020). In this sense, women and younger students showed higher level of emotional exhaustion than men and older students, respectively.

The study of emotional fatigue and the determination of its prevalence is a very important topic due to the implications that it has on physical and emotional health, as well as on academic performance. On the regional and national levels, there are not many studies of this phenomenon, therefore, it is expected that, based on the results, preventive and corrective programs might be projected and implemented aiming to reduce its prevalence and the consequences it might have over the students. That way, they could improve their quality of life and effectively deal with college life.

Finally, the goal of this study is to describe Peruvian college students' emotional exhaustion in their professional career in Education in the Covid-19 pandemic context.

## 2 Methodology

### 2.1 Design

The research had a quantitative approach since, in order to contrast the hypothesis, a data collection was conducted, which allowed its subsequent systematization and statistics analysis (SÁNCHEZ; REYES; MEJÍA, 2018). The project was not experimental, since the emotional exhaustion variable was not intentionally manipulated, but observed as it happened in its environment (HERNÁNDEZ; MENDOZA, 2018). Finally, the research was cross-sectional descriptive, since the properties and characteristics of the emotional exhaustion variable were analyzed and the measurement was made in only one moment respectively (BISQUERRA, 2009).

### 2.2 Population and sample

The population consisted of 586 students of Education professional career from National Amazonian University of Madre de Dios, in Puerto Maldonado, Peru. On the other hand, the sample consisted of 232 students, determined by a probability sample, with a 95% trust level and a 5% significance level. Among the participants, 53% were women and 47% were men. Concerning the age range, 43,1% were aged from 16 to 20, 28% were aged from 21 to 25, 19% were between 25 and 30, and 9,9% were over 30 years old. Related to the fields of study, 46,6% of the students were in Initial and Special Education, 35,3% were in Primary Education and Informatics, and 18,1% were in Mathematics and Informatics. Regarding employment, 47,8% of the students work and 52,2% did not have jobs. Finally, concerning socioeconomic level, 51,7% were from a middle class, 38,3% were of a lower class, and 9,9% were from a high socioeconomic level. Table 1 shows the characteristics of the sample.

**Table 1 – Sample characterization**

<b>Sociodemographic characteristics</b>		<b>n= 232</b>	<b>%</b>
Gender	Men	109	Gender 53,0
	Women	123	
Age group	From 16 to 20 years old	100	Age group 28,0 19,0 9,9
	From 21 to 25 years old	65	
	From 25 to 30 years old	44	
	Over 30 years old	23	
Field of study	Initial and Special	108	Field of study 35,3 18,1
	Primary and Informatics	82	
	Mathematics and Informatics	42	
Working condition	Work	111	Working condition 52,2
	Did not work	121	
Socioeconomic level	Low	89	Socioeconomic level 51,7 9,9
	Middle	120	
	High	23	

**Source:** Elaborated by the authors (2021).

### 2.3 Tools

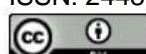
The tool used for data collection was the Emotional Exhaustion Scale (GONZALES; LANDERO, 2007), characterized as only one factor. 10 items on a Likert scale (never, rarely, sometimes, often, and always), and the punctuation varies from 10 to 50 points.

**Table 2 – Emotional Exhaustion Scale structure**

<b>Items</b>
1. Exams cause me excessive stress.
2. I feel I am working too hard and achieving too little.
3. I feel in a low mood, like I am sad, with no apparent reason.
4. Some days I do not sleep well because of my studies.
5. I have headaches and other pains that affect my performance.
6. Some days, I feel more fatigue and lack of energy to concentrate.
7. I feel emotionally drained by my studies.
8. I feel tired at the end of a study day.
9. Thinking of exams causes me stress.
10. I lack time and feel overwhelmed by my studies.

**Source:** Gonzales e Landero (2007).

The psychometric properties were determined through procedures of viability and reliability. The content validity was achieved through a specialized judgment technique, reaching a 0,902, Aiken V coefficient, indicating that this scale has highly adequate



content validity. Reliability was determined through a pilot test with 20 students, which gave a 0,911 Alfa Cronbach coefficient, meaning that the scale is highly reliable.

## **2.4 Procedure**

Data collection had two different stages. The first one was to explain the goal of the study and require permission from the competent college authorities. Then, students were contacted through the social media app WhatsApp in order to inform them about the goal of the study and send them the link to access Google Forms, the app in which the instrument was structured. Once able to access the form, they carefully read the instructions and gave informed consent, admitting their voluntary participation. After that, they answered the questionnaire for approximately eight minutes. The access for the scale was disabled when the form reached 232 answers.

## **2.5 Statistical analysis**

The statistical analysis used the software SPSS version 22, where descriptive results were systematized into tables of frequency and cross table. In the same way, the inferential part was through a non-parametric chi-square test ( $\chi^2$ ) to determine if the emotional exhaustion variable was significantly associated with other proposed sociodemographic variables.

## **3 Results**

The results shown below came from data collection made with undergraduate students on the Education professional career in a Peruvian public university.

Table 3 shows that 50,4% of the students had high levels of emotional exhaustion, 34,5% had moderate levels, and 15,1% had low levels. This indicates that students were characterized by a group of somatic (tension, insomnia, and headaches) as well as psychologic (anxiety, stress, tension, frustration) symptoms, which lead to deployment of their energy to perform academic activities and deal with university life.

**Table 3 – Descriptive results of emotional exhaustion**

Level of emotional exhaustion	n	%
Low	35	15,1
Moderate	80	34,5
High	117	50,4
Total	232	100,0

**Source:** Elaborated by the authors (2021).

Table 4 shows students' genders were significantly associated with the emotional exhaustion level ( $p<0,05$ ). Thus, it is possible to see that the female students showed higher levels of emotional exhaustion than male students, with a predominance of females on the high level (60,1%) and the males on the moderate (41,3%).

**Table 4 – Levels of emotional exhaustion according to students' gender**

Demographic variable	Emotional exhaustion			$\chi^2$	Sig.
	Low n (%)	Moderate n (%)	High n (%)		
Gender	Male 21 (19,3)	45 (41,3)	43 (39,4)	21,432	0,000
	Female 14 (11,4)	35 (28,5)	74 (60,1)		

**Source:** Elaborated by the authors (2021).

According to Table 5, the students' age range was significantly associated with the level of emotional exhaustion ( $p<0,05$ ). Thus, it was possible to see that younger students had higher levels of emotional exhaustion than older ones since the first group had more probability of showing high levels while the second group was mostly moderate.

**Table 5 – Levels of emotion exhaustion according to students' age groups**

Demographic variable	Emotional exhaustion			$\chi^2$	Sig.
	Low n (%)	Moderate n (%)	High n (%)		
Age group	From 16 to 20 years old 10 (10,0)	30 (30,0)	60 (60,0)	7,943	0,002
	From 21 to 25 years old 7 (10,8)	22 (33,8)	36 (55,4)		
	From 25 to 30 years old 10 (22,7)	19 (43,2)	15 (34,1)		
	Over 30 years old 8 (34,8)	9 (39,1)	6 (26,1)		

**Source:** Elaborated by the authors (2021).

According to Table 6, the field of study to which most students belonged was not significantly associated with the level of emotional exhaustion ( $p>0,05$ ). Thus, it was possible to see that students of three fields of studies showed high levels of emotional exhaustion.



**Table 6** – Level of emotional exhaustion according to students' field of study

<b>Demographic variable</b>	<b>Emotional exhaustion</b>			$\chi^2$	Sig.
	Low n (%)	Moderate n (%)	High n (%)		
Field of study	Initial and Special	16 (14,8)	30 (27,8)	62 (57,4)	
	Primary and Informatics	10 (12,2)	35 (42,7)	37 (45,1)	9,242
	Mathematics and e IT	9 (21,4)	15 (35,7)	18 (42,9)	0,056

**Source:** Elaborated by the authors (2021).

Table 7 shows that the students' working status was also not significantly related to the level of emotional exhaustion ( $p>0,05$ ). On this understanding, it was possible to see that both students who work and those who do not have high levels of emotional exhaustion.

**Table 7** – Level of emotional exhaustion according to the students' working status

<b>Demographic variable</b>	<b>Emotional exhaustion</b>			$\chi^2$	Sig.
	Low n (%)	Moderate n (%)	High n (%)		
Working status	Working	14 (12,6)	35 (31,5)	62 (55,9)	
	No job	21 (17,4)	45 (37,2)	55 (45,4)	21,301

**Source:** Elaborated by the authors (2021).

Finally, Table 8 shows that the students' socioeconomic levels were not significantly associated with the levels of emotional exhaustion ( $p>0,05$ ). Thus, it was possible to see that students of low, medium, and high socioeconomic levels had high levels of emotional exhaustion.

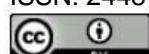
**Table 8** – Levels of emotional exhaustion according to the students' socioeconomic levels

<b>Demographic variable</b>	<b>Emotional exhaustion</b>			$\chi^2$	Sig.
	Low n (%)	Moderate n (%)	High n (%)		
Socioeconomic level	Low	11 (12,4)	30 (33,7)	48 (53,9)	
	Medium	18 (15,0)	42 (35,0)	60 (50,0)	15,695
	High	6 (26,1)	8 (34,8)	9 (39,1)	0,051

**Source:** Elaborated by the authors (2021).

#### 4 Discussion

Emotional exhaustion is a key-facet of exhaustion. It occurs when academic demands exceed resources and causes energy depletion. People who are emotionally exhausted feel psychologically and emotionally drained and may experience physical fatigue.



Firstly, it was possible to verify that most of the college students showed high levels of emotional exhaustion, indicating that manifestation of a range of somatic (tension, insomnia, and headaches) as well as psychological symptoms (anxiety, stress, tension, frustration).

The described information would be caused by demands and academic demands (exams, homework, reports, expositions, etc.) and additionally by the emerging problems of virtual education in the pandemic context, such as hyperconnection and technostress, are the result of excessive exposure to laptops, tablets, and smartphones that students use to enroll in videocalls and develop their works. In the same way, there are constant problems of intermittence of Internet signal since many of them live in rural areas, where connections are weak. However, there are also problems directly caused by the pandemic, such as the general fear of being infected by the Covid-19 virus and, on the other hand, many students had serious economic limitations due to the restrictive measurements imposed by the government. This situation, in turn, would lead to a decrease in their energy to perform their academic activities and deal with university life, negatively affecting their emotional well-being and quality of life.

This finding matches the one reported by Barreto and Salazar (2021), who made researches in Colombia aiming to analyze emotional exhaustion in students of higher education in the Health field and determined that the prevalence was high and characterized by the occurrence of somatic (gastric complaints, headaches, changes of the sleeping pattern) and psychological (anxiety, tension, low concentration, anguish) symptoms experienced during the academic periods.

It is also related to the findings reported by Osorio, Parrello, and Prado (2020) who aimed to determine the levels and types of academic burnout (emotional exhaustion, cynism, and inadequacy) as well as its association with some sociodemographic variables in students of a Mexican state university. Among the main findings, they highlight that most of the students had scored high rates to high grades of emotional exhaustion, which means that they felt exhausted from the fulfillment of the academic responsibilities and could no longer deal with their tasks as students.

In the same way, it is similar to the study by Lee *et al.* (2020) who did researches about emotional exhaustion in students and discovered that there was a significant prevalence of emotional exhaustion, in other words, they were emotionally drained by

overloaded academic demands and lack of resources to deal with them. This caused a lack of energy, chronic fatigue, apathy, restlessness, nervousness, and feelings of exhaustion and frustration.

Emotional fatigue is a basic response to stress (MASLACH, 2003), it is part of the imbalance between the demands in the academic context and the resources available for the student (PRADA; NAVARRO; DOMÍNGUEZ, 2020) and have negative impacts, since it influences the expectations of success and professional maturity, produces low expectations of concluding the studies, a tendency to quit, and low preparation to face work environment (FONTANA, 2011). Therefore, it is important to know the incidence of emotional exhaustion in students, especially in times of pandemic, in order to organize intervention programs for cases that require them (DOMÍNGUEZ *et al.*, 2018).

Concerning the sociodemographic variables, it was possible to determine that the students' genre was significantly associated with the level of emotional exhaustion ( $p<0,05$ ). In this sense, female students showed higher levels of emotional exhaustion than male students. This could be explained by the fact that women tend to externalize their emotional and physiological manifestations produced by stressful situations (ESTRADA *et al.*, 2020). In the same way, they usually assume responsibilities in their families, such as taking care of children and housework (ARIAS; HUAMANÍ; CEBALLOS, 2019). The reported discovery matches some researches that found a higher prevalence of emotional exhaustion in women than in men (BARRETO; SALAZAR, 2021; DOMÍNGUEZ *et al.*, 2018; ESTRADA; GALLEGOS, 2020; FERNÁNDEZ; LIÉBANA; MORÁN *et al.*, 2017; HERRERA; MOHAMED; CEPERO, 2016; LLEDÓ *et al.*, 2014).

Another important finding is that the students' age range was also significantly associated with the level of emotional exhaustion ( $p<0,05$ ). Thus, it was possible to see that younger students had higher levels of emotional exhaustion than older students. This could be due to the fact that younger students are still learning to use their emotional self-regulation resources and strategies to deal with the different stress factors of the college academic activities, while older students have already developed, formal or informally, those resources and strategies. The reported result is similar to the ones achieved by studies that also discovered that students of older age ranges showed levels of emotional exhaustion slightly lower than younger students (AGUAYO *et al.*, 2019; BOLAÑOS; RODRÍGUEZ, 2016; ESTRADA; GALLEGOS, 2020).



Among the main limitations of this study are the number of students and the homogeneity which do not allow to generalize results. Therefore, it is recommended that future studies increase the number of participants and include students of other professional careers at the university focused on this study, so the results could be generalized.

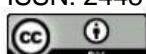
## 5 Closing remarks

Emotional exhaustion is a type of answer to stressful situations that occur in different contexts and is characterized by loss of energy, feelings of emotional and physical exhaustion. Students that suffer from this condition might not fulfill their academic responsibilities and have effects on their quality of life, as well as on their psychological well-being. In this sense, it was possible to discover that students that had high levels of emotional exhaustion, mostly caused by hyperconnection, technological stress, connection problems, fear of infection by Covid-19, and academic precarity they were facing. It was also possible to determine that the prevalence of the variable was significantly associated with the students' genders and age ranges ( $p<0,05$ ). Therefore, there is a need for the Psychopedagogic area of the university to detect the students that suffer from emotional fatigue and apply preventive programs to reduce the prevalence of this phenomenon so that students might recover their psychological well-being.

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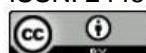
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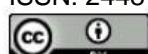
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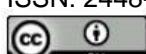
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