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Artículos científicos

Diferencias de género en la sensibilidad emocional por covid-19 en estudiantes universitarios

Gender Differences in Emotional Sensitivity to covid-19 in university students

Diferenças de gênero na sensibilidade emocional para covid-19 em estudantes universitários

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Resumen

Objetivo: Analizar las diferencias en la sensibilidad emocional entre mujeres y hombres estudiantes de educación superior debido a un periodo prolongado de pandemia. **Método:** La investigación fue descriptiva y transversal. Se empleó una muestra no probabilística incidental de 257 estudiantes (82 masculinos y 175 femeninos), a los que se les aplicó la encuesta de sensibilidad al horror por covid-19. Las variables analizadas fueron *bienestar socioemocional*, *angustia*, *evitación interna*, *evitación externa* y *autoagresión*.

Resultados: El género femenino expresó mayor sensibilidad al horror por pandemia que el masculino, especialmente en la angustia, la evitación interna y la evitación externa.

Palabras claves: emociones, género, horror, pandemia.

Abstract

Objective: To analyze the differences in emotional sensitivity between women and men in higher education students, due to a prolonged period of pandemic. Method: the research was descriptive, transversal; using an incidental non-probabilistic sample of 257 students, 82 male and 175 female. The COVID 19 horror sensitivity survey was applied. The variables analyzed were: socio-emotional well-being, anguish, internal avoidance, external avoidance and self-harm. Results: the female gender expressed greater sensitivity to pandemic horror than the male, especially in anxiety, internal avoidance and external avoidance.

Keywords: emotions, gender, horror, pandemic.

Resumo

Objetivo: Analisar as diferenças na sensibilidade emocional entre mulheres e homens estudantes do ensino superior devido a um período prolongado de pandemia. Método: a pesquisa foi descritiva e transversal. Uma amostra incidental não probabilística de 257 alunos (82 homens e 175 mulheres) foi usada, aos quais foi aplicada a pesquisa de sensibilidade ao horror covid-19. As variáveis analisadas foram bem-estar socioemocional, angústia, evitação interna, evitação externa e automutilação. Resultados: O gênero feminino expressou maior sensibilidade ao horror pandêmico do que o masculino, especialmente na ansiedade, evitação interna e evitação externa.

Palavras-chave: emoções, gênero, horror, pandemia.

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Introduction

Until June 2020, the pandemic caused by covid-19 had left an approximate balance of almost six million people infected and 390,000 deaths worldwide, while in Mexico the figures were around 150,000 sick and slightly more than 17,500 deaths (World Health Organization [WHO], 2020), data that, however, could not accurately reflect the reality of that time due to the limited number of diagnostic tests that were performed (Frenk, May 1 2020; Pérez, April 5, 2020).

This uncertainty about actual deaths and illnesses, as well as high rates of infection, prolonged isolation and ineffective treatments generated multiple threatening situations for emotional health that resulted in a feeling of horror (Bericat, 2005).

Emotions have a physiology and are present in any psychological process through three response systems: cognitive, physiological and behavioral. Emotions prepare the body to act according to the conditions of the environment, thus helping the individual to gather the energy required to guide a behavior towards a desired purpose.

Rodríguez, Morales and Gutiérrez (2012) affirm that horror is an intense and traumatic emotion for the individual (located in episodic memory) that affects cognition, since it can lead the individual to suffer emotional imbalances such as self-injury, which It acts as a defense mechanism against painful and unbearable feelings, and manifests itself in self-harm, addiction, eating disorders, health carelessness and suicide (Pugliese, 2018).

In the case of situations produced by pandemics, the emotion of horror and extreme fear can arise in the individual, which hinders reasoning and stimulates the need to flee before the inevitable fate (Ledermann, 2003). At the beginning of the pandemic, the individual first experiences an irrational reaction and then looks for the cause (Bericat, 2005).

However, to try to reduce the spread of covid-19, one of the first measures taken by governments around the world was to suspend face-to-face classes, which resulted in unplanned isolation that fostered symptoms of post-traumatic stress in students. , anxiety, anger and confusion (Alarcón, 2019; Gautam and Sharma, 2019; Wenjun et al., 2020). In fact, given this situation, emotional health problems are expected to increase, so it is important to carry out research that evaluates these aspects (Deblina, Sarvodaya, Sujita, Nivedita, Sudhir and Vikas, 2020; Erol, 2010).

Alarcón (2019) points out that the university education stage is decisive for the student because he faces physiological changes and social challenges (sometimes unimaginable as has happened with the current pandemic), which are usually faced in

different ways by men and women . For example, Chraif and Anitei (2013) have found that the female gender has a greater self-perception of the emotions caused during this stage of isolation. In this sense, Erol (2010) points out that gender differences in the treatment of emotions have their origin in genetic factors. This author explains that women have a greater emotional response to fear and anxiety, as well as high levels of concern in the face of threats or stressful situations (Kemp, Kennett-Hensel & Kees, 2013).

Other inquiries carried out with university students on the perception of positive and negative emotions indicate that in the female gender greater susceptibility is observed when expressing pain (Else-Quest, Higgins, Allison and Morton, 2012).

Deng, Chang, Yang, Huo and Zhou (2016) state that gender differences in emotions originate from distinctions in brain and sexual hormonal structures, as well as adaptive evolution, which suggests that male individuals must be brave and calm, particularly in the face of emotions such as anger and horror. In short, research and stereotypes show women more expressive and emotional compared to men (Castillo and Luque, 2019; Persano, 2018).

Having explained the above, it can be said that the purpose of this study was to observe the differences in emotional affectations between women and men students of higher education due to a prolonged period of pandemic. The hypotheses formulated were the following:

H₁: The mean of socio-emotional well-being, distress, internal avoidance, external avoidance, and self-harm among women and men is different.

$$H_1 = \neg (\mu_h = \mu_m)$$

The null hypothesis under test is then established as follows:

H₀: The mean of socio-emotional well-being, distress, internal avoidance, external avoidance, and self-harm among women and men is equal.

$$H_0 = \mu_h = \mu_m$$

Method

This was a descriptive and cross-sectional investigation in which an incidental non-probabilistic sample was used. Participants were asked to answer the online covid-19 horror sensitivity questionnaire in university students using a Likert scale (from one to five) that analyzed the following variables: socio-emotional well-being, anguish, internal avoidance,

external avoidance and self-harm. Incomplete surveys and people with a history of psychological disorders were excluded.

The results were analyzed with the SPSS statistical software (version 23) and factor analysis was used to confirm the dimensions and their respective items. Likewise, the reliability of the instrument was estimated using Cronbach's alpha. Once the normal distribution of the participating groups was determined, the hypothesis test was performed through the Anova variance calculation.

Participants

The participants were 257 university students who were in confinement since March 2020 due to covid-19. The average age was 24 years; 78% were single, and 41% were informed mainly by television, 33% by social networks and 20% by the Web. The participants resided mainly in Mexico City, the town where the highest number of cases and deaths from covid-19 was recorded (Table 1).

Tabla 1. Información sociodemográfica de los participantes

Género		Edo. Civil		Medio de información		
Hombre	82	Soltero	201	Web	52	
Mujer	175	Casado	52	Redes sociales	86	
Total	257	Divorciado	3	Televisión	105	
		Viudo	1	Otro	14	
		Total	257	Total	257	

Fuente: Elaboración propia

Instrument

The covid-19 horror questionnaire was used, which is made up of 25 statements grouped into the following dimensions: socio-emotional well-being (7), anguish / anxiety (6) and self-harm (6), internal avoidance (3) and external avoidance (3). The statements were designed on a scale of one to five of the Likert type (1 = never; 5 = always).

Results

According to the descriptive statistics, the participants expressed the lowest level of horror at the pandemic event in Mexico with regard to self-harm, while the highest mean was located in socio-emotional well-being (Table 2).

Tabla 2. Estadística descriptiva por dimensiones

	Promedio	Desviación estándar	N
Bienestar socioemocional	1.9400	.85624	257
Angustia/ansiedad	1.3969	.65886	257
Evitación interna	1.8872	.78990	257
Evitación externa	1.5435	.86900	257
Autoagresión	1.2529	.51918	257

Fuente: Elaboración propia

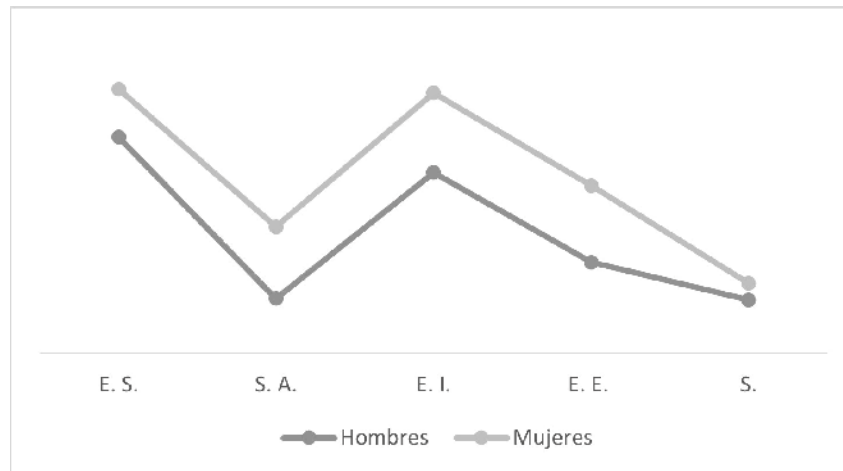
The mean values of the five dimensions (socio-emotional well-being, anguish / anxiety, internal avoidance, external avoidance, and self-harm) were higher in women than in men (Table 3). Likewise, the descriptive line of the mean values of women was above the masculine values (figure 1).

Tabla 3. Estadística descriptiva por género

Género	Dimensiones					
		Bienestar socioemocional	Sensación de angustia	Evitación interna	Evitación externa	Autoagresión
H	Media	1.8192	1.2089	1.6857	1.3460	1.2025
	N	82	82	82	82	82
	Desv. Estd.	0.75652	0.35453	0.69695	0.72096	0.46354
M	Media	2.0008	1.4800	1.9867	1.6362	1.2667
	N	175	175	175	175	175
	Desv. Estd.	0.89876	0.74498	0.81697	0.92176	0.53725

Fuente: Elaboración propia

Figura 1. Valores medios de las dimensiones por género



Fuente: Elaboración propia

Hypothesis testing

Using the ANOVA analysis of variance, the hypothesis test was performed. Table 4 shows that the p-value (referring to significance) was lower in three of the five variables (anxiety, internal avoidance and external avoidance), therefore the null hypothesis (H0) is rejected. With this, the H1 is partially verified, that is, between women and men, anxiety, internal avoidance and external avoidance are different.

The analysis of variances did not reject the null hypothesis in the variables socio-emotional well-being and self-harm. In these two dimensions, the behavior between men and women was the same. On the other hand, the ANOVA analysis accepted the alternative hypothesis, regarding anxiety, internal avoidance and external avoidance. This means that in these disorders the behavior of men and women is different.

Tabla 4. Análisis ANOVA

			Suma de cuadrados	gl	Cuadrado medio	F	Sig.
Equilibrio socioemocional * Género	Entre grupos	(combinado)	2.208	2	1.104	1.512	0.222
	Dentro de grupos		185.478	254	0.730		
	Total		187.686	256			
Angustia * Género	Entre grupos	(combinado)	4.034	2	2.017	4.783	0.009
	Dentro de grupos		107.095	254	0.422		
	Total		111.129	256			
Evitación interna * Género	Entre grupos	(combinado)	5.685	2	2.843	4.687	0.010
	Dentro de grupos		154.042	254	0.606		
	Total		159.728	256			
Evitación externa * Género	Entre grupos	(combinado)	4.718	2	2.359	3.177	0.043
	Dentro de grupos		188.603	254	0.743		
	Total		193.320	256			
Autoagresión * Género	Entre grupos	(combinado)	1.060	2	0.530	1.981	0.140
	Dentro de grupos		67.945	254	0.267		
	Total		69.005	256			

Fuente: Elaboración propia

Discussion

During the study, participants expressed a general low level of horror (especially in the self-harm dimension) at the pandemic event in Mexico. Socio-emotional well-being reported the highest mean, which is why students have difficulties (bad mood and irritability) in their relationships with family members or colleagues, which is consistent with the findings of Sharon and Uwe (2013). On the other hand, the need to flee during the onset of the pandemic is consistent with what was reported by Persano (2018) about defensive mechanisms against external and internal threats.

On the other hand, women showed greater affectation in the emotional dimensions (anguish and external and internal avoidance), which is consistent with the findings of Chraif and Amitei (2013) and Erol (2020) regarding gender differences in self-perception of emotions and in handling them in stressful or threatening situations. These results support the data of Persano (2018) and Castillo and Luque (2019), who explain that the female gender has a greater propensity to emotions such as guilt and horror.

Supported by Castillo and Luque (2019), we can affirm that the horror generated by covid-19 produces mental well-being problems in university students, which in extreme situations generate depression, substance abuse, suicide, among other serious pathologies. Due to this, educational institutions must implement methods that allow not only to regulate the management of emotions in public health emergencies (Wenjun et al., 2020), but also to consider gender differences when facing these situations.

Finally, within the limitations of the study, the size of the analyzed population can be mentioned. Therefore, it is necessary to carry out new studies to confirm the findings presented, as well as to include other factors that could also impact emotional sensitivity.

Conclusions

After analyzing the data presented in this work, it can be concluded that those emotions related to emotional well-being are the ones that have represented the most difficulty for the participants. This study showed that there are significant emotional differences between women and men students of higher education due to a prolonged period of isolation, thus achieving the objective set. These gender differences were found, particularly, in the dimensions that refer to anxiety, internal avoidance and external avoidance.

These findings contribute to a better diagnosis of the emotional effects generated by the pandemic in young university students, and establish lines of action that can be taken into account by care programs for students of that educational level.

Future lines of research

It is expected that research will be carried out on the treatment of emotional affectations in higher education students, considering gender differences. Particularly, in a treatment differentiated by gender, since women show greater anxiety and avoidance than men in the current pandemic. Consider emotional deviations as detonators of the limited academic performance of students and in extreme situations, serious violent pathologies.

In addition, it is necessary for the instrument validated in young university students to verify its psychometric properties in other populations, such as workers in intermediate and advanced adulthood, so that the instrument contributes to the diagnosis of the mental health

of the general population and to design its own interventions for women and respective for men.

Declaration of conflict of interest

The authors declare that they have no conflict of interest in carrying out this research.

Declaration of data availability

The data used in this research to report the results are available by request to the mail reported by the authors.

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