



Short article

# Relationship of COVID-19 pandemic grief with anxiety, depression, and fear of COVID-19 among Colombian adults

## Relación del duelo pandémico por COVID-19 con ansiedad, depresión y temor al COVID-19 en adultos colombianos

Patricia de Jesús Lapeira-Panneflex<sup>1</sup>, Carmen Cecilia Caballero-Domínguez<sup>2</sup>, Carmen Amaris Guerra-Sánchez<sup>3</sup>

1. Universidad del Magdalena. Santa Marta, Colombia. Correo: [plapeira@unimagdalena.edu.co](mailto:plapeira@unimagdalena.edu.co) - <https://orcid.org/0000-0002-1088-1345>
2. Universidad del Magdalena. Santa Marta, Colombia. Correo: [ccaballero@unimagdalena.edu.co](mailto:ccaballero@unimagdalena.edu.co) - <https://orcid.org/0000-0003-3730-2750>
3. Universidad de Carabobo. Carabobo, Venezuela. Correo: [cguerra1@uc.edu.ve](mailto:cguerra1@uc.edu.ve) - <https://orcid.org/0000-0002-2500-6914>

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### ABSTRACT

**Keywords:**

Anxiety;  
Depression;  
Duel; COVID-19; Pandemic.

**Introduction:** Coronavirus deaths had a particular significance in the context of the pandemic; however, the association of COVID-19 pandemic grief has been little investigated. **Objective:** To explore the relationship between COVID-19 pandemic grief, generalized anxiety, depression, and fear of COVID-19 among Colombian adults. **Method:** A cross-sectional study was conducted with the participation of people with a history of losing a loved one who were invited to participate and complete the Pandemic Grief Scale, PHQ-9, GAD-7, and Fear COVID-5 Scale. **Results:** 123 people aged between 18 and 71 years participated; 81.3% were women. COVID-19 pandemic grief was associated with depression ( $r=0.51$ ,  $p<0.01$ ) and generalized anxiety ( $r=0.43$ ,  $p<0.01$ ); while COVID-19 pandemic grief was independent of COVID-19 fear ( $r=0.29$ ,  $p>0.01$ ). **Conclusions:** COVID-19 pandemic grief was associated with generalized anxiety and depression. Future longitudinal studies may improve understanding of the relationship between these variables.

### RESUMEN

**Palabras clave:**

ansiedad;  
depresión;  
duelo;  
COVID-19;  
pandemia.

**Introducción:** las muertes por coronavirus tuvieron un significado particular durante pandemia por COVID-19; más, las asociaciones del duelo pandémico por COVID-19 han sido poco investigadas. **Objetivo:** explorar la relación entre duelo pandémico, ansiedad generalizada, depresión y temor al COVID-19. **Método:** se condujo un estudio transversal en el que participaron adultos con historia de pérdida de un ser querido. Los participantes diligenciaron la Escala de Duelo Pandémico, PHQ-9, GAD-7 y la Escala de Temor al COVID-5. **Resultados:** participaron 123 personas con edades entre 18 y 71 años, el 81,3% fueron mujeres. El duelo pandémico se asoció a depresión ( $r=0,51$ ;  $p<0,01$ ) y ansiedad generalizada ( $r=0,43$ ;  $p<0,01$ ); no obstante, el duelo pandémico por COVID-19 fue independiente del temor al COVID-19 ( $r=0,29$ ;  $p>0,01$ ). **Conclusiones:** el duelo pandémico por COVID-19 se asocia a ansiedad generalizada y depresión. Futuros estudios longitudinales puedan mejorar la comprensión de la relación entre estas variables.

## INTRODUCTION

Globally, the coronavirus disease (COVID-19) pandemic has generated more than 6.9 million deaths as of June 2023<sup>1</sup>. In Colombia, the pandemic explains more than 140,000 deaths as of July 7th, 2023<sup>2</sup>.

Grief is a normal reaction to the death of a loved one and is a process that involves a series of thoughts, emotions, and behaviors that allow adaptation in the following months<sup>3</sup>. However, when this process is prolonged, a complicated duel occurs<sup>4</sup>.

Complicated grief is characterized by persistent preoccupation with the deceased, accompanied by intense feelings such as sadness, guilt, anger, denial, difficulty accepting death, a feeling of having lost a part of oneself, and inability to experience a positive mood<sup>3,4</sup>. Complicated grief is diagnosed when symptoms and deterioration in global functioning persist for more than six months. However, duration may be normative in some social and cultural contexts<sup>5</sup>.

Ten percent of adults may have a prolonged bereavement disorder after a significant loss<sup>4</sup>. The prevalence of pandemic grief varies between 6% and 66%<sup>4</sup>. Pandemic grief is linked to emotional distress, manifesting more intensely depending on the circumstances of the loss and the relationship with the deceased<sup>6,7,8,9</sup>. International studies have shown an association between pandemic grief and anxiety or depression disorders in different countries<sup>10,11</sup>.

The COVID-19 pandemic grief takes on a community nuance, especially in people who lost a close family member to COVID-19 during confinement—restrictions imposed by biosecurity measures limited funeral rituals and access to the bodies of the deceased<sup>6</sup>. Funeral rites are cultural patterns with a personal and collective function that provide support and resources to accept the loss and elaborate the mourning<sup>4</sup>.

The cognitive triad is characterized by distorted thoughts about oneself, the world, and the future<sup>12</sup>. From this perspective, acute emotional reactions in pandemic grief can be derived from distorted and negative cognitive evaluations, which exaggerate the loss<sup>3</sup>. In addition, exaggerated or irrational fear predisposes somatic manifestations of anxiety<sup>3,12</sup>.

To date, no research has been published that shows the relationship between COVID-19 pandemic grief and fear of COVID-19 in the Caribbean Region of Colombia; knowing this relationship can generate actions that promote adherence to biosecurity measures and vaccination plans. The pandemic has had an unprecedented impact in Colombia, with many mourners facing simultaneous losses due to high mortality rates<sup>2</sup>. This study highlights the importance of careful follow-up of mourners and the implementation of specialized protocols when necessary<sup>7,13</sup>.

The present study explored the association of COVID-19 pandemic grief with anxiety, depression, and fear of COVID-19 in Colombian adults.

## METHOD

### Design

A cross-sectional analytical study was implemented.

### Participants

Colombian residents over 18 years of age who reported the death of a loved one during the COVID-19 pandemic, selected through non-probability convenience sampling, participated.

### Instruments

*Depression:* It was assessed with the Patient Health Questionnaire (PHQ-9)<sup>14</sup>. The PHQ-9 explores the symptoms of a major depressive episode in the past 15 days. The PHQ-9 consists of nine questions with four answer options from "not at all" to "almost every day," the higher the score, the higher the risk of depression<sup>14</sup>. In the present study, PHQ-9 showed a Cronbach's alpha of 0.93.

*Anxiety:* It was assessed with the Generalized Anxiety Disorder Scale (GAD-7). The GAD-7 has seven items and four answer options from "no day" to "almost every day"; the higher the score, the higher the risk of anxiety<sup>15,16</sup>. In the present study, GAD-7 had a Cronbach's alpha of 0.91.

*Fear of COVID-19:* It was measured with the Fear of COVID-5 Scale during the most recent week. This

instrument is derived from a seven-item scale<sup>17,18</sup>. The Fear of COVID-5 Scale covers five items with four response options from "never" to "always," the higher the score, the greater the fear of coronavirus disease. The Fear of COVID-5 showed a Cronbach's alpha of 0.86 in the present application.

*COVID-19 pandemic grief:* It was assessed with the Pandemic Grief Scale (PGS). This scale explores thoughts, feelings, or behaviors related to a family member's death from coronavirus disease or other close person<sup>19</sup>. The PGS includes five items with four answer options, from "not at all" to "almost every day"<sup>19</sup>. The higher the score, the more likely it is to have dysfunctional pandemic grief. The present study showed a Cronbach's alpha of 0.92 on the scale.

### Procedure

The questionnaire was sent to the emails of students, teachers, and administrators of an educational institution in the Colombian Caribbean. The first component provided information on the research objectives and invited people to express a desire to participate. The electronic questionnaire was sent to those interested in participating. All items were mandatory to avoid loss of information.

### Statistical analysis

The descriptive analysis included observation, frequencies (and percentages), and mean (and standard deviation). The association between variables was established with the Pearson coefficient [ $r$ ]<sup>20</sup> after verification of the normal distribution of the data with the Shapiro-France test<sup>20</sup>. The values of  $r \geq 0.30$ , with a probability value  $\leq 0.05$ , were accepted as significant. The cut-off points of  $r \geq 0.30$  were taken to avoid a type 1 error given the sample size<sup>20</sup>. The analysis was completed in the SPSS program, version 22.

### Ethical considerations

This study adopted the ethical aspects of Resolution 8430 and the Declaration of Helsinki. A research ethics committee approved the study protocol, and participants gave informed consent.

## RESULTS

Three hundred seventy-six participants answered the online questionnaire, excluding three who refused to participate and five who lived outside Colombia. Of 368 participants, 123 (33.4%) reported the death of a loved one from COVID-19. The ages were between 18 and 71 years ( $M=30.7 \pm 13.8$ ), and 81.3% were women (Table 1).

**Table 1.** Demographic characteristics of the participants.

Variable	Frequency	%
<i>Gender</i>		
Female	100	81.3
Male	23	18.7
<i>Income</i>		
Low	66	53.7
Medium or high	57	46.3
<i>Ethnicity</i>		
Caucasian or mestizo	102	82.9
Other	21	17.1
<i>Marital status</i>		
Single or without a stable union	93	75.6
Free or married unión	30	24.4
<i>Residence</i>		
Urban	117	95.1
Rural	6	4.9
<i>Education level</i>		
Secondary or less	82	66.7
University	41	33.3

The PHQ-9 scores were between 0 and 27 ( $M=7.1 \pm 6.7$ ), GAD-7 between 0 and 21 ( $M=6.3 \pm 5.0$ ), and Fear of COVID-5 Scale between 0 and 14 ( $M=3.1 \pm 2.8$ ). The PGS scores were observed between 0 and 15 ( $M=2.8 \pm 4.1$ ), 20 (16.3%).

Pearson's correlation between PGS and PHQ-9 was 0.51 ( $p<0.01$ ), GAD-7 was 0.43 ( $p<0.01$ ), and Fear of COVID-5 Scale was 0.29 (not significant).

## DISCUSSION

In the present study, the COVID-19 pandemic grief was associated with depression and generalized anxiety. The COVID-19 pandemic grief was independent of fear of COVID-19.

The COVID-19 Pandemic grief was significantly related to depression score. This finding coincides

with another study conducted in Turkey<sup>10</sup>. The COVID-19 Pandemic grief is an excessive emotional reaction that stems from negative evaluations of oneself, the world, and the future, threatening personal worth.

This pattern is exacerbated by guilt at the death of a loved one<sup>3,12</sup> and establishes the cognitive substrate of depression<sup>12</sup>. This cognitive process constitutes an aggression to the schema about the self and the world, threatening personal valuation or worth<sup>12</sup>. Likewise, guilt may appear for the death of the loved one who died<sup>21</sup>. In the present study, pandemic grief was significantly correlated with generalized anxiety. This finding is consistent with a study conducted in the Netherlands, which observed a relationship between pandemic grief, measured with Traumatic Grief Inventory-Self-Report Version with anxiety<sup>11</sup>. However, the finding differs from that observed in the United States, which reported independence between variables proxy to pandemic grief, dysfunction due to emotional burden due to grief<sup>8</sup>. In the COVID-pandemic grief, people suffered uncertainty, a typical symptom of anxiety<sup>18</sup>. Cultural differences attributed to death could also explain the differences observed<sup>4</sup>. From the cognitive perspective, in grief, generalized anxiety is a secondary symptom of the pain of the absence of the loved one, which can come from demanding and catastrophic irrational beliefs about death and the consequences of the absence of the deceased<sup>22</sup>.

The relationship between pandemic grief, depression, and anxiety can be bidirectional. Mourners with previous diagnoses of depression and anxiety may experience acute pandemic grief symptoms<sup>12</sup>. Regardless of the direction of this relationship, manifestations of depression and anxiety may influence COVID-19 pandemic grief symptoms<sup>10,12</sup>.

In the present study, pandemic grief is independent of fear of COVID-19, as no empirical references inform the relationship between these variables. Theoretically, people with a COVID-19 pandemic grief might have a greater fear of coronavirus disease due to the perception of the SAR-CoV-2 virus as life-threatening<sup>1</sup>. As vaccination progressed, confidence increased, fear of disease, and the risk of dying decreased in much of the population<sup>8</sup>. Therefore, those with pandemic grief who do not perceive the SAR-CoV-2 virus catastrophically may have less fear of COVID-19<sup>12</sup>.

This study highlights the relationship between pandemic grief, generalized anxiety, depression, and fear of COVID-19 in Colombian adults. It was found that these variables did not show a collinear relationship, being considered independent. The findings highlight the importance of public health interventions such as protocolizing the psychological approach to pandemic grief in primary care for early detection, prevention, and follow-up of mourners.

Consequently, COVID-19 pandemic grief is emotionally charged and can be traumatic experience<sup>13</sup>. Grief amid a pandemic has some particularities due to the specific events and factors of the pandemic that make it different from mourning in regular times<sup>8</sup>. The associated factors could be the guilt of contagion, the perception of abandoning the family member, the inability to access the intensive care units, and the rapid and unexpected outcome of the disease. In addition, the failure to say goodbye, the failure to anticipate events, and the lack of time to activate personal resources and effective strategies are mediated by misinformation or confusing information about how events have happened and loneliness. Pandemic grief is a severe emotional process accompanied by concurrent stressors of uncertainty regarding work, economic factors, and lifestyle changes<sup>8</sup>.

This study has limitations; the online survey only screened possible cases<sup>5</sup>, and the history of anxiety or depression was not investigated. However, the findings obtained with non-probability samples can clarify a little-known phenomenon of significant impact. In other words, these findings may be helpful, but they should be interpreted cautiously.

## CONCLUSIONS

The COVID-19 pandemic grief is associated with a risk of generalized anxiety and risk of depression. Longitudinal studies can improve the understanding of the relationship between these variables.

## CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

## AUTHORS' CONTRIBUTION

**First author:** Participated in the conception and design of the article, interpretation and discussion of the results, critical review, drafted and approved the final version.

**Second author:** Participated in the information collection, interpretation, discussion of the results and approved the final version.

**Third author:** Participated in the statistical analysis, interpretation, and discussion of the results, critical review, and approved the final version.

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