

**Bereavement Before and During Covid-19 pandemic: Funeral and Rituals Evaluation,  
Religious coping and Prolonged Grief Disorder Symptoms**

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## **Abstract**

The funeral service, rituals and religious coping (RC) represent resources bereaved individuals often use to cope with the loss. Research findings are inconsistent regarding the relationship between funeral and ritual evaluation and prolonged grief disorder (PGD) symptoms. Studies show that negative, but not positive, RC can predict PGD symptoms. Covid-19 pandemic has affected bereavement and the related factors. In the present study we explored the impact of funeral and rituals evaluation and religious coping on PGD symptoms before and during the covid-19 pandemic and the impact of the pandemic itself. Confirming our hypotheses, participants who experienced loss during the pandemic evaluated the funeral more negatively and reported more PGD symptoms. Funeral evaluation was found to be associated with PGD symptoms. Regarding RC, negative religious coping (NRC) seemed to explain the variance in PGD symptoms. But, in contrast with our hypothesis, NRC did not mediate the relationship between time of loss (before/ during the pandemic) and PGD symptoms. These findings highlight the need for further research on PGD symptoms and the role of funeral and rituals evaluation and RC in grief experience in the light of covid-19 pandemic.

**Keywords:** Covid-19 Pandemic, PGD, Rituals, Funeral, Religious Coping

The consequences of the COVID-19 pandemic are undeniably severe. As of the 24<sup>th</sup> of July 2021, there are nearly 192.3 million confirmed cases and more than 4 million deaths of infected individuals worldwide (World Health Organization [WHO], 2021). Additionally, this worldwide crisis may result in increased mortality for various reasons. Healthcare systems are affected and people avoid visiting health care facilities due to the fear of infection. Hence, an increased number of people dealing with bereavement is expected. Disasters with many casualties are associated with severe grief reactions termed prolonged grief (PG; Eisma et al., 2019).

### **Grief and Prolonged Grief Disorder (PGD)**

Grief is considered to be the emotional experience of various psychological, cognitive-behavioural, physical and social reactions following the loss of a loved one (Stroebe, Schut & Boerner, 2017). Grief experience is unique for each individual and can be affected by cultural factors. Hence, every model that tries to define normal grief is a simplification.

But if it is difficult to specify what normal grief is, what is considered to be abnormal grief? It is relevant to add that what is considered normal is changing in the course of time (Bandini, 2015) and between cultures (Rosenblatt, 2013). Even for western societies, the definition of pathological grief is a topic that leads to disagreement between experts. However, the Diagnostic and Statistical Manual of Mental Disorders (DSM) and international classification of diseases (ICD) have introduced diagnostic criteria for pathological grief. In the 5<sup>th</sup> edition of DSM criteria for persistent complex bereavement disorder (PCBD) were introduced as one of the “other-specified trauma and stressor-related disorders” (American Psychiatric Association [APA], 2013), and the ICD-11 included PGD (WHO, 2018). PGD is a more commonly used term but there is evidence that both definitions are in essence the

same (Maciejewski, 2016). Therefore, PGD will be used in the present study, but the information can be considered relevant for both terms. Additionally, the term PGD symptoms will be used when reviewing the previous literature for consistency, even though some previous researchers referred to grief reactions or complicated grief.

A bereaved individual can get a PGD diagnosis if they experience intense, prolonged symptoms of grief that differ from the social, cultural, and religious norms for a period longer than six months after the loss, along with important impairment in their functioning (WHO, 2018). A PCBD diagnosis requires a period of 12 months (APA, 2013). The time criterion needs to be stressed to avoid pathologising all bereaved individuals. Most bereaved people manage to overcome the loss by themselves (Bonanno et al., 2005) and only a small –but significant- minority needs professional help (Lundorff et al., 2017). However, increased PGD symptoms early after the loss can predict higher levels of PGD at a 6-month follow-up (Boelen & Lenferink, 2019). Interventions provided at an earlier stage can prevent the development of PGD. For this reason, the present study includes recently bereaved individuals.

### **Implications of Covid-19**

The COVID-19 pandemic has been affecting most aspects of life, including bereavement, for more than a year. Pandemics seem to cause multiple losses and disrupt social norms in relation to mourning and rituals (Mayland et al., 2020). Research data indicate that experiencing a loss during the pandemic is related to more PGD symptoms (Eisma & Tamminga, 2020). PGD symptoms may increase in the absence of funeral and post funeral rituals (Castle and Phillips, 2003) . Negative religious coping is also associated with elevated PGD symptoms (Boulware & Bui, 2015; Burke et al., 2011; Lichtenhal et al., 2011). Covid-19 is possibly related to increased use of negative religious coping. The restrictions

imposed by the pandemic led to mayor changes in religious practices and made some religious individuals believe that covid-19 is a curse from God (Ozalp, 2020).

### **The Funeral**

Due to measurements implemented because of Covid-19, bereaved people are deprived of the opportunity to organize the funeral as they would like. Some were unable to attend it. The funeral service is an important ritual following a loss and is considered to be offering an opportunity to express bereavement-related emotions appropriately (Fulton, 1995). Most bereaved individuals participate in the funeral when they are given the opportunity to (Schaal, et al., 2010). It has been supported that it can facilitate the grieving process (Doka, 1985), but other findings suggest that there is no significant relationship between funeral participation and grief adjustment (Melhem et al., 2007; Pfefferbaum et al., 2001). Schaal and colleagues (2010) found that not attending the funeral was not predictor of PGD symptoms.

However, there is another way to investigate the relationship between the funeral and grief severity (Lensing, 2001). That is by looking into the subjective evaluation of the funeral by the bereaved. While one study supported that adverse events during the funeral were related to increased grief severity (Gamino et al., 2000), later findings support that there is no relationship between funeral evaluation and PGD symptoms (Mitima-Verloop et al., 2019). Very few studies have yet taken into consideration funeral evaluation. Hence, it is important to investigate the relationship between funeral evaluation and PGD symptoms in the context of the pandemic.

### **Grief Rituals**

Bereaved people often perform rituals, such as visiting the grave or holding a memorial ceremony, to cope with the loss. This is another aspect of grief experience that got highly affected by Covid-19.

While few studies have investigated the relationship between rituals and PGD symptoms, different mechanisms through which rituals might affect grief have been suggested. A psychological mechanism that can explain the effectiveness of rituals is the sense of control they give to the bereaved (Norton & Gino, 2014). Furthermore, rituals constitute a way to externalize emotions (Rando, 1985) and help bereaved individuals maintain a bond with the deceased, decreasing emotional pain (Vale-Taylor, 2009).

Research findings indicate that most people evaluate rituals as moderately to very helpful (Castle & Philips, 2003; Mitima-Verloop et al. 2019). However, to the author's knowledge, there is only one study that examined the relationship between rituals evaluation and PGD symptoms, which concluded that rituals evaluation cannot predict PGD symptoms (Mitima-Verloop et al., 2019). Nevertheless, this might be because of the limited variation in grief intensity in the sample used. Therefore, further investigation is needed to get more insight into the relationship between rituals evaluation and PGD symptoms. Also, it is relevant to explore this relationship in the light of covid-19.

### **Religious Coping**

People often turn to religion to cope with stressful life events (Koenig, 2018) such as experiencing loss (Burke et al., 2011). Also, health-related stressors are related to increased use of religious coping (Cummings & Pargament, 2010) and, thus, covid-19 can be associated with an increase of related coping strategies.

Religious coping (RC) refers to “the use of religious beliefs or behaviours to facilitate problem-solving to prevent or alleviate the negative emotional consequences of stressful life circumstances” (Koenig et al. 1998, p. 513). Positive religious coping (PRC) represents a sense of connectedness with God and a conviction that life has a greater benevolent meaning. Contrastingly, negative religious coping (NRC) reflects negative beliefs about God and spiritual struggles (Pargament et al., 2011). Generally, PRC is associated with psychological well-being, while NRC is related to psychological distress (Koenig, 2018) and this is confirmed by recent studies, conducted during the pandemic (Counted et al., 2020; Thomas & Barbato, 2020). Research findings regarding the relationship between RC and PGD symptoms are inconsistent. Most findings suggest a positive correlation between NRC and PGD symptoms and no association between PRC and PGD symptoms (Boulware & Bui, 2015; Burke et al., 2011; Lichtenhal et al., 2011). However, there is, also, some evidence that higher PRC is related to less PGD symptoms (Anderson et al., 2005).

The impact of covid-19 led some individuals to believe that God created the virus in order to punish humanity (Ozalp, 2020). To the author’s knowledge, there are not studies investigating the impact of a pandemic on RC. One recent study exploring the associations between covid-19, psychological distress and RC concluded that covid-19 related distress possibly precipitates NRC, which further increases this distress (Fekih-Romdhane & Cheour, 2021). Previous studies in the context of natural disasters, suggest that they are associated with increased NRC (Feder et al., 2013; Smith et al., 2000). The impact of the pandemic may be similar (i.e. high death toll, secondary stressors, social disruption) and, thus, an increase of NRC is possible. The inconsistent findings regarding the impact of RC on PGD symptoms indicate the need for further exploration of the relationship between these two factors. Additionally, it is relevant to investigate this association in the context of covid-19 pandemic.

In conclusion, this pandemic may negatively affect bereaved individuals' mental health, through PGD-related factors. Therefore, we should consider the possibility of a rise in PGD in the aftermath of the pandemic (Eisma et al., 2020).

### **Present Study**

The present study aims to better understand the effect of funeral and rituals evaluation and RC on PGD symptoms among bereaved individuals, taking into consideration the impact of Covid-19 on these factors and on PGD symptoms. One reason to investigate these associations is the gap in the scientific literature concerning funeral and rituals evaluation and PGD symptoms and the inconsistency in findings related to RC and PGD symptoms. Furthermore, it is important to explore these relationships under the circumstances of the pandemic. Funeral directors can play a crucial role, especially during the pandemic, helping the bereaved hold funerals and rituals in a way that is meaningful for them (Burrell & Selman, 2020). Furthermore, identifying whom may be at heightened risk for PGD is crucial for clinical practitioners in order to anticipate individual needs and consider factors important for prevention and therapy of PGD.

Our first aim is to investigate whether Covid-19 has an impact on funeral and ritual evaluation and PGD symptoms. We expect that people who experienced loss during the pandemic will report lower funeral and ritual evaluation and more PGD symptoms than people who experienced loss before the pandemic.

Our second aim is to explore if there is an association between funeral and rituals evaluation and PGD symptoms. It is expected that increased funeral evaluation will be associated with decreased PGD symptoms and inversely. No significant association between rituals evaluation and PGD symptoms is expected.



Our third aim is to investigate whether RC predicts PGD symptoms. It is expected that, while controlling for time since loss, higher NRC will predict more PGD symptoms, but PRC will not predict PGD symptoms.

Finally, our fourth aim is to explore if the relationship between time of loss (before/ during covid-19 pandemic) and PGD symptoms is mediated by NRC. We expect that experiencing loss during the pandemic will predict higher NRC which, in turn, will predict more PGD symptoms.

## Method

### Procedure

Ethical approval for the study was obtained from the Ethical Review Board of the Faculty of Social and Behavioural Sciences of Utrecht University (FETC, 20-0221). Participants were invited via social media to contact the researchers in order to receive a link to the questionnaire. They filled it in between November 2020 and February 2021.

### Participants

In total 161 participants filled in the informed consent. Participants bereaved before 2019 and people with unknown time of loss were excluded from the analyses. Eventually, 151 participants were included in the analyses. Their age varied from 18 to 87 years ( $M=34.34$ ,  $SD= 13.61$ ). The age of the deceased varied from 0 to 102 years ( $M=70.10$ ,  $SD=21.21$ ). Time since loss varied between 0 and 22 months ( $M= 7.10$ ,  $SD =5.63$ ). Additional demographic and loss-related characteristics are presented in Table 1.

**Table 1.***Demographic and Loss-related Characteristics (n=151)*

Variable	n (%)
<b>Gender</b>	
Male	17 (11.3)
Female	134(88.7)
<b>Education</b>	
Lower than / equal to high school diploma	42 (27.8)
Bachelor's degree or higher	109 (72.2)
<b>Country of birth</b>	
Greece	57 (37.7)
Ireland	22 (14.6)
Spain	17 (11.3)
Mexico	20 (13.2)
Other European country	16 (11.9)
Other non-European country	17 (11.3)
<b>Religion</b>	
Christian-Orthodox	41 (27.2)
Christian-Protestant	1 (0.7)
Christian-Roman Catholic	60 (39.2)
Muslim	4 (2.6)
Atheist	17 (11.3)
Spiritual but no organized religion	21 (13.9)
Other	7 (4.6)

**Table 1***Demographic and Loss-related Characteristics (n=151)*

Variable	n(%)
Deceased	
Partner	10 (6.6)
Child	16 (10.6)
Brother/Sister	3 (2.0)
Parent	42 (27.8)
Other relative/ friend	80 (53.0)
Cause of death	
Covid-19	32 (21.2)
Accident	6 (4.0)
Natural death	31 (20.5)
Unexpected medical causes	30 (19.9)
Other	52 (34.4)
Time of loss	
Before covid-19 pandemic <sup>a</sup>	45 (29.8)
During covid-19 pandemic <sup>b</sup>	106 (70.2)

<sup>a</sup> From January 1<sup>st</sup> 2019 until March 10<sup>th</sup> 2020.

<sup>b</sup> From March 11<sup>th</sup> 2020 until the completion of the survey.

## Measures

The survey was developed in English, Greek and Spanish as the survey was mainly distributed in Ireland, Greece and Spain. In order to obtain valid questionnaires in all three

languages, back translation from the English version was used for Greek and Spanish versions, with the exception of the Brief R-COPE for which an already validated version was available in Greek (Paika et al., 2017).

### ***Demographic and Loss-related Variables***

Demographic variables included gender, age, education, country of birth and religion. Additionally, loss related characteristics included cause of death, age of the deceased, relationship to the deceased and time since loss. Time of loss variable refers to whether the loss occurred before or during covid-19 pandemic, with participants who experienced loss from January 2019 until the start of the pandemic coded as 0 and those who experienced loss during the pandemic as 1. Whether the loss occurred before or during the covid-19 pandemic was determined based on the date WHO declared covid-19 a pandemic. This date was March 11<sup>th</sup> 2020 (Cuccinota & Vanelli, 2020).

### ***Traumatic Grief Inventory Self-report (TGI-SR)***

To measure PGD symptoms we used TGI-SR, which assesses symptoms of both PCBD and PGD (Boelen & Smid, 2017). The questionnaire consists of 18 items (e.g., “I felt numb over the loss”), scored on a five-point Likert scale (1=never to 5=always). Analyses were performed based on the total score of the 18-items scale. Higher scores indicate more symptoms. The scale has good psychometric properties (Boelen et al., 2018). Cronbach’s alpha was 0.93 for this sample.

### ***Funeral Evaluation Questionnaire (FEQ)***

Funeral evaluation was measured using the four general evaluation items (e.g. “The goodbye went exactly as I imagined it”) of the FEQ (Mitima-Verloop et al., 2019). Participants were asked to rate them on a five-point Likert scale (1=not at all to 5=very

much). A total score was used for the analyses. Higher scores indicate more positive funeral evaluation. The scale was developed for a previous study and Cronbach's alpha for their sample was satisfactory (Mitima-Verloop et al., 2019). Further validation of the scale is not available. For the current sample Cronbach's alpha was 0.82.

### ***Rituals Evaluation***

Rituals evaluation was measured using two items related to individual and collective grief rituals participants performed. They were self-constructed but based on Bereavement Activities Questionnaire (BAQ; Castle & Phillips, 2003). Participants were asked to evaluate how helpful each type of rituals they performed was on a five-point Likert scale (1= very unhelpful to 5=extremely helpful; see Appendix A). A mean score was used for participants who performed both types of rituals. Cronbach's alpha was 0.86 for this sample.

### ***Brief RCOPE***

Religious coping was measured using the Brief RCOPE (Pargament et al. 1998), which assesses the extent to which an individual uses religious coping when facing major stressors. The Brief RCOPE has two independent subscales that assess positive religious coping (PRC) and negative religious coping (NRC). Each subscale consists of 7 items. The items of the PRC subscale (e.g. "Sought God's love and care.") indicate a secure relationship with the sacred, while the items of the NRC subscale (e.g. "Questioned the power of God.") reflect spiritual struggles (Pargament et al. 2011). In order to fit the present research context, loss-specific instructions were given: "The following statements describe specific ways people might cope with the loss of a loved one. As you think of the loss you have faced, how much did you use each of the following things to cope with it?". The items were scored on a four-point Likert scale (1 =not at all to 4 = a great deal). A total score of each subscale was used for the analyses. Both subscales have good psychometric properties (Pargament et al.

2011). Internal consistency was  $\alpha=0.95$  for the PRC subscale and  $\alpha=0.87$  for the NRC subscale for this sample.

### **Statistical Analyses**

Statistical analyses were performed using SPSS 27.0 (IBM Corp., 2020) and PROCESS macro 3.5.3 (Hayes, 2017). Missing values were replaced using person mean imputation (Enders, 2003). Questionnaires with more than 15% missing values were removed from the analyses.

To address our first aim of investigating the impact of covid-19 on funeral and ritual evaluation and PGD symptoms, independent sample t-tests were used. Age varied from 19 to 61 years ( $M=32.53$ ,  $SD=12.96$ ) for participants who experienced loss before the pandemic and 18 to 87 years ( $M=35.10$ ,  $SD=13.87$ ) for those who experienced loss during the pandemic. The age of the deceased varied from 0 to 102 years ( $M=72.78$ ,  $SD=20.34$ ) for losses before the pandemic and from 0 to 93 years ( $M=68.96$ ,  $SD=21.56$ ) for losses during the pandemic. Time since loss varied between 8 and 22 months ( $M=13.91$ ,  $SD=4.45$ ) for losses before the pandemic and from 0 to 10 months ( $M=4.18$ ,  $SD=2.90$ ) for losses during the pandemic. Additional characteristics for both groups are presented in Appendix B. We expected that on average individuals who experienced loss during the pandemic would report more negative funeral and rituals evaluation and more PGD symptoms.

Pearson correlations were calculated to address our second aim and explore associations between funeral and ritual evaluation and PGD symptoms. We expected negative correlations between funeral evaluation and PGD symptoms, but no significant correlation between rituals evaluation and PGD symptoms.

Furthermore, a hierarchical regression analysis was conducted to address our third aim and examine whether religious coping explained variance in PGD symptoms, while controlling for time since loss. It was expected that higher NRC would predict more PGD symptoms, but PRC would not predict PGD symptoms. This model (2) was expected to significantly improve the ability to predict PGD symptoms of model 1, which included only time since loss as predictor.

Regarding our fourth aim, simple mediation analysis (with  $n = 5,000$  bootstrap samples) was used to explore if the relationship between time of loss (before/ during the pandemic) and PGD symptoms is mediated by NRC. PGD symptoms constituted the dependent variable (Y), time of loss was the independent variable (X), and NRC was the mediator (M). We expected that time of loss would predict PGD symptoms and this effect would be partially explained by the impact of time of loss on NRC. Regarding the relationship between time of loss and NRC, we expected that experiencing loss during the pandemic would predict more NRC.

Before analyses were performed, assumptions for each analysis were tested. Regarding our first aim, the assumptions for independent sample t-tests were met. For Pearson's correlations the assumptions of linearity and absence of outliers were met but the assumption of normality was violated for funeral and ritual evaluation. However, the analysis was performed, as it is robust to deviations from normality and our sample size is large enough (Havlicek & Peterson, 1976). For the hierarchical regression analysis that was performed to address our third aim assumptions of homoscedasticity and normality for PRC and NRC variables were not met. Still, the analysis was performed as the sample size was large enough. Assumptions for multiple regression analysis were tested before we run the mediation analysis to address our fourth aim. Homoscedasticity and normality were violated. However, the analysis was performed using a bootstrap method (with  $n = 5,000$  bootstrap



samples), which does not rely on the assumption of normality and is robust for skewed data (Preacher & Hayes 2004).

## Results

### Descriptive Statistics

Descriptive statistics of each questionnaire used are presented in Table 2.

**Table 2**

*Descriptive Statistics of the Questionnaires Used*

Variable	Range	<i>M</i>	<i>SD</i>
TGI-SR	18-85	47.16	15.08
FEQ	4-20	11.33	4.84
Rituals evaluation	1-5	3.25	1.09
PRC	7-28	12.94	6.23
NRC	7-24	9.17	3.63

### **Covid-19, Funeral and Rituals Evaluation and PGD Symptoms: Group Differences and Correlations**

Funeral evaluation was significantly lower in individuals that experienced a loss during the pandemic ( $n=85$ ,  $M= 10.69$ ,  $SD=4.71$ ) than in the individuals that experienced a loss before the pandemic ( $n=41$ ,  $M=12.63$ ,  $SD=4.89$ ),  $t(124) = 2.14$ ,  $p = .034$ ,  $d=0.41$ . PGD symptoms were significantly less in individuals that experienced a loss before the pandemic ( $n=45$ ,  $M=43.27$ ,  $SD=14.90$ ) than in individuals that experienced a loss during pandemic

( $n=106$ ,  $M=48.81$ ,  $SD=14.91$ ),  $t(149)=-2.09$ ,  $p=.038$ ,  $d=-0.37$ . In consistence with our hypothesis, people who experienced loss during the pandemic on average evaluated the funeral more negatively and had more PGD symptoms. However, the effect size for both differences was small.

Contrastingly, ritual evaluation was lower in individuals that experienced a loss before the pandemic ( $n=38$ ,  $M=3.17$ ,  $SD=1.12$ ) than in individuals that experienced a loss during the pandemic ( $n=89$ ,  $M=3.29$ ,  $SD=1.08$ ), but the difference was not statistically significant,  $t(125)=-0.55$ ,  $p=.586$ ,  $d=-0.11$ .

Table 3 shows correlations between funeral and ritual evaluation and PGD symptoms. There was a significant small negative correlation between funeral evaluation and PGD symptoms,  $r(124)=-.250$ ,  $p=.005$ . This result indicates that, in consistence with our hypothesis, an increase in funeral evaluation is associated with a decrease in PGD symptoms and a decrease in funeral evaluation is associated with an increase in PGD symptoms. Additionally, there was a significant moderate positive correlation between funeral evaluation and ritual evaluation,  $r(107)=.45$ ,  $p<.001$ . This means that lower scores in funeral evaluation relate to lower scores in ritual evaluation, while higher scores in funeral evaluation are associated with higher scores in ritual evaluation.

**Table 3***Pearson Correlations Between Funeral and Ritual Evaluation and PGD**Symptoms and Sample Size per Analysis*

	1	2	3
1. PGD symptoms	1		
<i>N</i>	151		
2. Funeral evaluation	-0.250**	1	
<i>N</i>	126	126	
3. Ritual evaluation	-0.105	0.451***	1
<i>N</i>	127	109	127

*Notes*\*\* $p < .01$ . \*\*\* $p < .001$ **Religious Coping as a Predictor of PGD Symptoms**

To explore if PRC and NRC can predict PGD symptoms, while controlling for time since loss, we performed a hierarchical regression analysis. The full regression table is presented in Table 4. Time since loss was entered in the first block of the equation and the total scores of PRC and NRC subscales were entered in the second block. Model 1 was statistically insignificant. Adding total scores of PRC and NRC in Block 2 yielded a significant model ( $R^2 = .27, F_{change}(2,142) = 24.16, p < .001$ ). In the final model, only NRC ( $\beta = 0.47, p < .001$ ) explained unique variance in PGD symptoms. These results suggest that, in

consistence with our hypothesis, higher NRC predicts more PGD symptoms, but PRC is not a significant predictor of PGD symptoms.

**Table 4**

*Summary of Hierarchical Regression Analysis for Variables Predicting PGD*

*Symptoms (n = 146)*

Variables	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	<i>B</i>
Time since loss	-0.44	0.22	-0.16	-0.38	0.19	-0.14
Positive religious coping				0.21	0.18	0.09
Negative religious coping				1.96	0.31	0.47***

*Note.*

\*\*\* $p < .001$

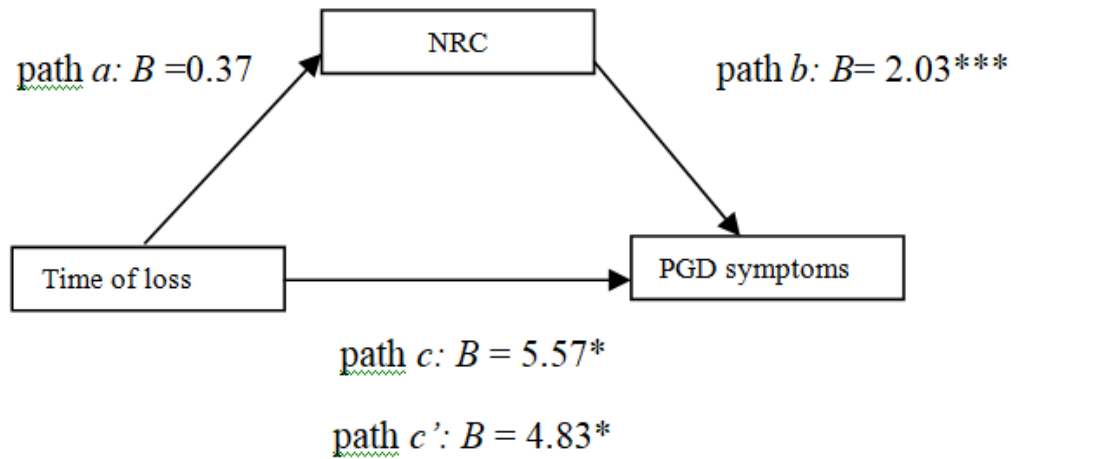
### **NRC as a Mediator between Covid-19 and PGD Symptoms**

To examine if the relationship between time of loss (before/during covid-19 pandemic) and PGD symptoms is mediated by NRC a simple mediation analysis was used. A total effect of time of loss on PGD symptoms was identified. Experiencing loss during covid-

19 pandemic predicted more PGD symptoms (total effect  $c$ :  $B = 5.57$ ,  $SE B=2.66$ ,  $t(148)=2.09$ ,  $p = .038$ ). Time of loss explained 3% of the variance in PGD symptoms ( $R^2=0.03$ ,  $F(1,148)=4.37$ ,  $p=.038$ ). After taking the effect of NRC on PGD symptoms into account, the relationship between time of loss and PGD symptoms slightly decreased, (direct effect  $c'$ :  $B = 4.83$ ,  $SE B=2.33$ ,  $t(147)=2.07$ ,  $p = .040$ ). Results indicated that NRC did not significantly mediate the relationship between time of loss and PGD symptoms. The indirect effect (path  $ab$ :  $B= 0.74$ ,  $SE B=1.17$ ) was insignificant, 95%  $CI [-1.66, 2.92]$ . Experiencing loss during the pandemic was not significantly related to higher NRC (path  $a$ :  $B = 0.37$ ,  $SE B=0.65$ ,  $t(148)=0.56$ ,  $p = .574$ ). However, as it can be seen in Figure 2, higher scores in NRC were related to more PGD symptoms (path  $b$ :  $B = 2.03$ ,  $SE B=0.30$ ,  $t(147)= 6.86$ ,  $p <.001$ ). Around 26% of the variance in PGD symptoms was explained by NRC and time of loss together ( $R^2= 0.26$ ,  $F(2,148)=26.40$ ,  $p<.001$ ). These results suggest that, while higher levels of NRC can predict more PGD symptoms and the variance of PGD symptoms is better explained by time of loss and NRC together, time of loss cannot predict NRC and the relationship between time of loss and PGD symptoms is not mediated by NRC. Hence, our hypothesis is not confirmed.

**Figure 1**

*The Mediating Role of NRC in the Relationship Between Time of Loss and PGD Symptoms*



*Notes.* All coefficients presented are unstandardised. Time of loss refers to whether the loss occurred before or during the pandemic.

\*  $p < .05$ ; \*\*\* $p < .001$ .

## Discussion

The funeral, grief rituals and religious coping represent resources that bereaved individuals use to cope with their loss. We assumed that covid-19 pandemic has an impact on bereavement and the related factors mentioned above. The present study examined the importance of funeral and rituals evaluation and religious coping in relation to PGD symptoms in the context of covid-19.

### **Covid-19, Funeral and Rituals Evaluation and PGD Symptoms**

Our first aim was to examine if time of loss (before/ during pandemic) has an impact on funeral and rituals evaluation and PGD symptoms. Both people who experienced loss before the pandemic and people who experienced loss during the pandemic evaluated the funeral moderately. The latter group evaluated the funeral more negatively compared than the first group, as we expected. This group difference could be due to the impact of the restrictions imposed by the pandemic on funerals. Contrastingly, ritual evaluation was slightly more positive in the group of people who experienced loss during the pandemic. However, this effect was non-significant and ritual evaluation was moderately high for both groups. As ritual evaluation included individual rituals, it can be assumed that participants possibly performed individual rituals that were not highly affected by covid-19 pandemic. Finally, people who experienced loss during the pandemic reported more PGD symptoms. Accordingly, Eisma & Tamminga, (2020) argue that experiencing a loss during the pandemic is related to more PGD symptoms. This effect could be explained by the fact that individuals who experience loss during the pandemic, have to deal with secondary stressors (e.g. job loss, covid-19 restrictions, absence of social support) that may affect bereavement.

We also examined associations between funeral and rituals evaluation and PGD symptoms. Findings suggest that people who evaluate the funeral more negatively will report



more PGD symptoms and vice versa. This finding is in consistence with our hypothesis that positive funeral evaluation will be related to less PGD symptoms. Previous research findings, also, indicate that negative experiences during the funeral are related to increased grief severity (Gamino et al. 2000). A possible explanation is that while the funeral can facilitate grief ( Doka, 1985) and the ability to plan the funeral in a meaningful way is associated with positive outcomes (Burrell & Selman, 2020), a grief negative experience of the funeral could have adverse effects. Mitima-Verloop and colleagues (2019) found, however, that there was no relationship between funeral evaluation and PGD symptoms. This difference could due to limited variation of grief intensity in their sample. Another explanation could be that they investigated PGD symptoms three years after the loss, while our analysis included participants who experienced a loss recently. No relationship was found between rituals evaluation and PGD symptoms, which is in accordance with previous findings (Mitima-Verloop et al., 2019). Finally, although not hypothesized, funeral evaluation was associated with ritual evaluation. This finding suggests that people who experienced the funeral in a positive way were likely to positively evaluate the rituals they performed and inversely.

Although we cannot extract a conclusion for causal relationships because of the cross-sectional design of the present study, our findings suggest that there is an association between covid-19, funeral evaluation and PGD symptoms.

### **Religious Coping and PGD Symptoms in the light of Covid-19 Pandemic**

We also explored whether RC can predict PGD symptoms, when controlling for time since loss. Our results indicate that more NRC can predict more PGD symptoms and, respectively, less NRC can predict less PGD symptoms. Previous research has, also, shown an association between NRC and PGD symptoms (Boulware & Bui, 2015; Burke et al., 2011; Lichtenhal et al., 2011). This finding indicates that negative assumptions about God and spiritual struggles

can lay behind increased PGD symptoms. However, because of the cross-sectional design, we cannot conclude in fact if it is NRC that contributes to PGD symptoms. It may be the psychopathology that leads to spiritual struggles.

In consistence with the majority of previous research findings, PRC cannot predict PGD symptoms. To the author's knowledge only Anderson and colleagues (2005) found that PRC could predict less PGD symptoms, but only when high levels of task-oriented coping were present. Task-oriented coping has been associated with positive grief outcomes (Stroebe & Schut, 1999). Thus, the positive effect of PRC cannot be assumed when individuals do not get engaged in task-oriented coping. Regarding time since loss, it could not predict PGD symptoms. This could be explained by the fact that all participants in our study had experienced a relatively recent loss, since people whose loss occurred before 2019 were excluded from the study.

Finally, our last hypothesis that NRC constitutes an explaining mechanism for the relationship between time of loss and PGD symptoms is not accepted. The results indicate that, while experiencing loss during the pandemic can predict more PGD symptoms, this effect cannot be partially explained by the impact of time of loss on NRC. Additionally, experiencing loss during the pandemic was not found to predict more NRC. Contrastingly, previous findings in the context of natural disasters, suggested that the disaster was positively related to NRC (Feder et al., 2013; Smith et al., 2000). This difference could mean that covid-19 pandemic cannot be compared to natural disasters in respect to the impact it has on NRC. This finding is, also, in contrast with the study of Fekih-Romdhane and Cheour (2021), who stated that covid-19 can precipitate higher use of NRC and the increased use of NRC can exacerbate this distress provoked by covid-19. The difference could be explained by the fact that Romdhane and Cheour (2021) used measures of psychological distress to address the impact of covid-19 on NRC, while we conceptualized the impact of covid-19 based on

whether the loss occurred before or after the day covid-19 was declared a pandemic. Still, in our study more NRC was found to predict more PGD symptoms. This finding is in consistence with previous studies ( Boulware & Bui, 2015; Burke et al., 2011; Lichtenhal et al., 2011) and suggests that negative beliefs about God or spiritual struggles constitute a risk factor for PGD symptoms.

### **Limitations, Suggestions for Future Research and Strengths**

Some limitations of the present study need to be addressed. Firstly, we have to be cautious when establishing causal relationships between covid-19 and PGD symptoms. Conclusions about causality may be elusive because of the cross-sectional research design of the present study. Secondly, to measure funeral evaluation we used a questionnaire that was constructed for a previous study and for which further validation is needed (Mitima-Verloop et al., 2019). Further research, using a validated questionnaire (if available), is needed in order to investigate whether experiencing a loss during the pandemic leads to negative funeral evaluation, which, subsequently, leads to more PGD symptoms. Thirdly, in the absence of a validated construct to measure rituals evaluation, we used two self-constructed items and, for people who performed both individual and collective rituals, we used the average of them. The amount of rituals participants used and the diversity of them were not taken into consideration. This might gave a relatively inaccurate score for rituals evaluation, as some participants might have rated one type of rituals as very helpful and the other as not helpful at all. Fourthly, we operationalized covid-19 as the time of loss (before/ during pandemic) variable. The time boundary for loss before or during the pandemic is vague. The pandemic has affected most countries but not necessarily in the same way and during the same time period. Hence, the exact impact of covid-19 on bereavement remains unknown. A different measurement of covid-19 could be used to perform research in the future, assessing the perceived impact of covid-19 on dealing with the loss. This could allow getting more

insight on the associations between covid-19, NRC and PGD symptoms as well. Lastly, data were derived from a heterogeneous sample in terms of loss-related variables and we did not control for the impact of these variables. As it can be seen in Appendix B, there are group differences in terms of demographic and loss related characteristics between those who experienced loss before and during the pandemic, which were not taken into consideration. To gain more insight in the importance of funeral evaluation and NRC on PGD symptoms in the light of covid-19, further research should take into consideration loss-related characteristics.

Despite these limitations, our large sample size, given the challenges of sampling in bereavement research (Caserta et al., 2011), makes the results of our study important. Also, the sample was heterogeneous in terms of age, country of birth and religiosity. Additionally, two of the questionnaires used, TGI-SR and Brief RCOPE, have very good psychometric properties, while we constructed the questionnaire about rituals evaluation ourselves. This study provides a contribution to the literature, since quantitative research in the areas of funeral and rituals evaluation and religious coping is limited.

### **Practical Implications**

This study only addressed a limited number of ways covid-19 may affects PGD symptoms. Nevertheless, the results indicate that a rise in PGD in the aftermath of the pandemic is possible. Our findings underline the crucial role of funeral directors during the pandemic, as a negative experience of the funeral is associated with elevated PGD symptoms. Even for people who experienced loss recently, increased PGD symptoms can predict meeting the criteria for a PGD diagnosis later on (Boelen & Lenferink, 2019). Hence, identifying those individuals has a contribution to make in preventive care. Scientific information on the impact of funeral evaluation and NRC on PGD symptoms and the possible

implications of covid-19 can be important for professionals involved, such as grief therapists and clinical psychologists. Identifying possible implications of the pandemic on these factors can help determine who among the bereaved may be at heightened risk for PGD, facilitating preventive interventions. Additionally, more information on these associations can help professionals address individual needs and consider factors important for therapy. A negative experience of the funeral can be an issue that should be addressed during therapy. Similarly, spiritual issues and increased use of NRC constitute an important topic for grief therapy. Additionally, therapy sensitive to the individual's religious background can provide a better understanding to the clinician. In conclusion, more research on these aspects, which can function as protective or risk factors for the development of PGD, will serve professionals involved in bereavement care and, subsequently, bereaved individuals in their grieving process.

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## Appendix A

### Rituals evaluation

The following questions are related to grief rituals (or activities) you performed after the funeral of your loved one to cope with the loss. Examples of grief rituals are visiting the grave site, creating an altar, or lighting a candle in memory of the deceased, or sharing stories with others.

What grief rituals or activities did you perform? [more options possible]

a. Individual grief rituals (or activities) in memory of the deceased (carried out alone)  
How helpful were these individual grief rituals in general?  
1 = very unhelpful; 2 = a little; 3 = somewhat; 4 = quite much; 5 = extremely helpful

b. Collective grief rituals (or activities) in memory of the deceased (carried out with other people)  
How helpful were these collective grief rituals in general?  
1 = very unhelpful; 2 = a little; 3 = somewhat; 4 = quite much; 5 = extremely helpful

c. None.

## Appendix B

**Table B**

*Demographic and Loss-related Characteristics of Individuals who Experienced Loss Before (n=45) and During (n=106) Covid-19 Pandemic*

Variable	Loss before the pandemic	Loss during the pandemic
	n(%)	n(%)
<b>Gender</b>		
Male	6(13.3)	11 (10.4)
Female	39(86.7)	95 (89.6)
<b>Education</b>		
Lower than / equal to high school diploma	7(15.6)	35 (33.0)
Bachelor's degree or higher	38(84.4)	71(67.0)
<b>Country of birth</b>		
Greece	26(57.8)	31(29.2)
Ireland	8(14.7)	14(13.2)
Spain	4(8.9)	13(12.3)
Mexico	-	20(18.9)
Other European country	3(6.7)	15(14.2)
Other non-European country	4(8.9)	13(12.3)
<b>Religion</b>		
Christian-Orthodox	13(28.9)	28(26.4)
Christian-Protestant	1(2.2)	-
Christian-Roman Catholic	10(22.2)	50(47.2)

**Table B**

*Demographic and Loss-related Characteristics of Individuals who Experienced Loss Before (n=45) and During (n=106) Covid-19 Pandemic*

Variable	Loss before the pandemic	Loss during the pandemic
	n(%)	n(%)
Muslim	1(2.2)	3(2.8)
Atheist	10(22.2)	7(6.6)
Spiritual but no organized religion	9(20.0)	12(11.3)
Other	1(2.2)	6(5.7%)
Deceased		
Partner	-	10(9.4)
Child	2(4.4)	14(13.2)
Brother/Sister	3(6.7)	-
Parent	14(31.1)	28(26.4)
Other relative/ friend	26(57.8)	54(50.9)
Cause of death		
Covid-19	1(2.2)	31(29.2)
Accident	3(6.7)	3(2.8)
Natural death	13(28.9)	18(17.0)
Unexpected medical causes	10(22.2)	20(18.9)
Other	18(40.0)	34(32.1)