# Screening for dysfunctional Covid-19 grief: A replication and extension

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## Implications for practice

- Results of this study support that the Pandemic Grief Scale is a good tool to assess pandemic-related, dysfunctional grief from those who have lost a loved one during Covid-19 or similar viral epidemics in the future.

- Although the original PGS cut-score (≥ 7) showed adequate classification features, a lower cut-score (≥ 6) was shown to be superior in this study.

- With Covid-19 deaths continuing to rise, there are more individuals who may be experiencing pandemic-related, dysfunctional grief — researchers and practitioners can identify such individuals by utilising this screening tool to refer them for further professional support and therapy.

## Abstract

As Covid-19 deaths continue, so does the grief that is experienced by those impacted by such loss. Accordingly, the Pandemic Grief Scale (PGS) was created as a screening tool for health professionals to use in identifying individuals suffering from dysfunctional levels of this form of grief. With the development of this measure, this paper serves to replicate and extend the psychometric findings on the PGS, using an independent US sample of 318 adults who lost a significant person from Covid-19. The results of this study largely replicated the findings of the original PGS study by demonstrating acceptable parameters on factor structure, diagnostic and discrimination accuracy, and evidence of convergent validity. However, convergent validity support was not found with the lack of correlation between PGS scores and a measure of positive well-being. The results of this study also recommended a lower cut-score than the one proposed by the original PGS study. Overall, these results support the PGS as a psychometrically sound screening tool for assessing pandemic-related, dysfunctional grief.

## Introduction

Although Covid-19 is no longer considered a public health emergency of international concern (Pan American Health Organization, 2023), many

people continue to die from this deadly disease. In fact, the US is the global leader of Covid-19 related deaths across countries, totaling over 1.1 million—with the number of deaths per year in 2021 being almost equivalent to the death toll in 2020 (Gramlich, 2022; Worldometers, 2023). Various sources have indicated that since the outbreak of Covid-19 in the US, the number of Americans who have suffered the loss of a loved one to the pandemic has climbed to over nine million (over 45 million globally; Lee & Neimeyer, 2022b; Miller, 2020; NORC, 2021; Szabo, 2021; Verdery *et al*, 2020; Worldometers, 2023).

Losing a loved one is an emotionally painful and life-altering event even under normal circumstances. Johnson (2012) found that grieving the death of loved ones is responsible for a loss of more than $75 billion dollars of work productivity each year. The strain of grief has also been associated with a wide range of physical illnesses and early mortality rates (Stroebe *et al*, 2007). Research indicates that the unique circumstances of the Covid-19 pandemic, such as social isolation, disruption of funeral services, and the inability to say good-bye to loved ones, have made the grieving process unusually complicated, with little evidence that the high levels of grief and impairment associated with such loss diminish significantly as a function of time (Breen, 2020; Neimeyer & Lee, 2021). Consequently, Lee and Neimeyer (2022b) constructed and validated the Pandemic Grief Scale (PGS) to help health professionals assess particularly worrisome responses to bereavement resulting from this global health crisis.

The PGS is a brief screener developed on a large sample of American adults (N = 831) who lost a significant person to Covid-19 (Lee & Neimeyer, 2022b). Because the authors of the PGS believed that grief due to a Covid-19 loss could be different than other kinds of losses due to the unique conditions of the pandemic (eg, social isolation and unexpectedness of the death), they created their screening tool from an analysis of 21 items based on the authors' observations of people bereaved by Covid-19 losses, supplemented by symptoms of problematic grief that were adapted from the Persistent Complex Bereavement Inventory, a measure based on the DSM-5 (Lee, 2015)[1]. They then winnowed this diverse set of symptoms through a series of factor analyses to identify five items that demonstrated a solid underlying factor structure, measurement

invariance across demographic groups, and strong diagnostic properties. The resulting scale not only established convergent validity with measures of substance use coping, for example, but also displayed incremental validity by explaining 18% additional variance in functional impairment due to a Covid-19 loss beyond measures of generalised anxiety and depression.

Further convergent validity support for the PGS was found in another study of Americans bereaved by a Covid-19 loss, in which scores on the PGS were found to correlate with measures of substance use coping, functional impairment in family, work and social roles, meaning-making problems, neuroticism, separation distress, and bereavement-related psychopathology (Lee *et al*, 2021). Further support for the validity of the scale was found in a subsequent study of 183 British adults seeking psychological treatment for Covid-19 bereavement, in which the PGS showed strong convergence with measures of psychiatric distress, PTSD symptoms, disrupted meaning, and functional impairment (Breen *et al*, 2023). Translated versions of the PGS have also been validated in countries such as Turkey (Evren *et al*, 2021), Poland (Skalski *et al*, 2021), and Peru (Caycho-Rodríguez *et al*, 2021). The results of these studies provide evidence to support the reliability and validity of the PGS and its utility across different cultural contexts.

In view of continuing concern about the long-term impact of Covid-19 bereavement, and indeed bereavement by any cause under pandemic circumstances (Breen *et al*, 2021), combined with the continuing death toll to the disease worldwide, the purpose of this study was to replicate the results of the original PGS study (Lee & Neimeyer, 2022b) with an independent sample of Americans who lost a loved one to Covid-19. Specifically, the PGS's factor structure (ie, confirmatory factor analyses), diagnostic accuracy (ie, AUC and ROC analysis), and convergent validity (ie, correlations with measures of neuroticism, generalised anxiety, depression, substance-use coping, meaning-making difficulty, and functional impairment) were examined. In addition, this study serves to extend the evidence to support the validity of the PGS by examining its relationship with positive well-being, an important indicator of adaptive grieving not yet studied in the pandemic context. Because grief severity has been shown to be inversely correlated with positive well-being

(Craig *et al*, 2008; Goda, 2021; Villacieros *et al*, 2014), evidence of this pattern could provide further convergent validity support for the PGS.

## Method

### Participants and procedure

Online survey data from 318 adults that were collected on December 5 to 6, 2020 were used in this IRB approved study. The participants were recruited through Amazon MTurk in exchange for payment ($0.50) and were eligible if respondents provided consent and had a significant person in their life die from Covid-19. Only participants who furnished complete information were included in the final sample.

The study's sample consisted of 174 males (54.7%), 142 females (44.7%), and 2 indicating other gender (0.60%), with a combined mean age of 37.83 (SD = 11.02) years. Most of the participants were White (69.5%), followed by Black (14.8%), Hispanic (7.2%), Asian (7.2%), and Other Race (1.3%). Most of the deceased were extended family members (39.9%), followed by immediate family members (20.1%), close friends (15.1%), acquaintances (13.8%), romantic relationships (9.4%), and other (1.6%). Time since loss varied from < 1 month (11.9%), 1 month to < 2 months (23.6%), 2 months to < 3 months (24.5%), 3 months to < 4 months (19.2%), 4 months to < 5 months (11.9%), 5 months to < 6 months (4.4%), and 6 months or more (4.4%). Significantly, nearly 35% of participants had sought professional help for their grief and had themselves tested positive for Covid-19.

### Measures

Item scores within each measure were summed to form composite scores. Higher composite scores indicate higher levels of a particular condition or trait.

**Demographic information.** Participants were asked to report their age, sex, race, and Covid-19 diagnosis. Participants were also asked to report their relationship to a significant person in their life who died from Covid-19, how long ago this person died, and whether the participant received professional help for this loss.

**Neuroticism.** The generalised tendency to experience negative emotional states was measured using the 8-item neuroticism subscale of the Big Five Inventory (BFI; John & Srivastava, 1999). Participants indicated, using 5-point agreement scales (1 = strongly disagree to 5 = strongly agree), how much they agreed or disagreed with characteristics associated with neurotic personality (eg, 'I see myself as someone who can be moody.'). This measure of neuroticism exhibited satisfactory internal consistency reliability (α = .73).

**Psychological distress.** Clinical symptoms of depression and generalised anxiety were measured using the Patient Health Questionnaire-4 (PHQ-4; Kroenke *et al*, 2009). Participants indicated, using 4-point time-anchored scores that spanned the past two-weeks (0 = not at all to 3 = nearly every day), how frequently they experienced symptoms of depression (eg, 'feeling down, depressed, or hopeless') and generalised anxiety (eg, 'feeling nervous, anxious, or on edge'). These measures of depression (α = .80) and generalised anxiety (α = .76) yielded satisfactory internal consistency reliabilities.

**Psychological well-being.** Subjective psychological well-being was measured using the WHO-5 (Topp *et al*, 2015). Participants indicated, using 6-point time-anchored scores that spanned the past two weeks (0 = at no time to 5 = all of the time), how frequently they experienced positive well-being states (eg, 'I felt calm and relaxed.'). This measure of well-being produced excellent internal consistency reliability (α = .90).

**Substance-use coping.** Coping with the Covid-19 loss using alcohol or drugs was measured with the single-item, 'I used alcohol or other drugs to help me get through this loss.' Participants indicated, using a 4-point time-anchored score that spanned the past two weeks (0 = not at all to 3 = nearly every day), how frequently they engaged in these behaviours. Close to 62% of the participants used alcohol or drugs to cope with their loss.

**Meaning-making difficulty.** Difficulty making meaning of the Covid-19 loss was measured using the Integration of Stressful Life Experiences Scale-Short Form (ISLES-SF; Holland *et al*, 2014). Participants indicated for the 6 items, using 5-point agreement scales (1 = strongly disagree to 5 = strongly agree), how much they agreed or disagreed with statements about their meaning-making experiences with their loss (eg, 'This loss

is incomprehensible to me.'). This measure of meaning-making difficulty exhibited excellent internal consistency reliability (α = .90).

**Functional impairment.** Functional impairment due to the Covid-19 loss was measured using the Work and Social Adjustment Scale (WSAS; Mundt *et al*, 2002). Participants indicated on each of the 5 items, using a 9-point scale (0 = not at all to 8 = very severely), how much impairment they experienced because of their Covid-19 loss (eg, 'Because of this loss, my ability to work is impaired.'). This measure of functional impairment demonstrated excellent internal consistency reliability (α = .94).

**Dysfunctional Covid-19 grief.** Clinical symptoms of grief due to a Covid-19 loss were measured using the PGS (Lee & Neimeyer, 2022b). Participants indicated for each of the 5 items, using 4-point time-anchored scores that spanned the past two weeks (0 = not at all to 3 = nearly every day), how frequently they experienced symptoms of dysfunctional grief (eg, 'I wished to die in order to be with the deceased.'). This measure of dysfunctional grief exhibited excellent internal consistency reliability (α = .90).

## Statistical analyses

Descriptive statistics were used to characterise the sample. Independent t-tests, ANOVA, and Pearson-product moment correlations were used to determine differences in Covid-19 grief according to participant characteristics. Pearson-product moment correlations were also used to determine the evidence to support the convergent and discriminant validity of the PGS. Specifically, higher PGS scores were expected to show positive correlations with the scores of measures of neuroticism, depression, generalised anxiety, substance-use coping, meaning-making difficulty, and functional impairment, to demonstrate evidence of convergent validity (Breen *et al*, 2021; Lee et al, 2021; Milman et al, 2019; Mundt et al, 2002; Neimeyer & Burke, 2017; Robinson & Marwit, 2006; Stroebe *et al*, 2007). Furthermore, because grief symptoms have been shown to be negatively correlated with positive psychological well-being in previous research (Craig *et al*, 2008; Goda, 2021; Villacieros *et al*, 2014), a similar pattern was expected to emerge with the PGS and well-being, as further evidence of the screener's convergent validity.

A CFA was used to examine the factorial validity of the PGS. Specifically, Bootstrap Maximum Likelihood (ML) estimations (2,000 samples) were run on the five PGS items to test whether the underlying structure of the PGS conforms to the single factor found in the original PGS study (Lee & Neimeyer, 2022b). Criteria for determining model fit were based on conventional standards (Brown, 2006; Byrne, 2001): chi-square/*df* value < 2.00; Standardised Root Mean Square Residual (SRMR) value ⩽ 0.05; Root Mean Square Error of Approximation (RMSEA) value ⩽ 0.10; comparative fit index (CFI) and Tucker Lewis index (TLI) values ⩾ 0.90.

A ROC analysis was used to examine the diagnostic accuracy of the PGS to identify bereaved adults who were functionally impaired by a Covid-19 loss, and to examine the efficacy of the original cut-score of ⩾ 7 reported in the original PGS study (Lee & Neimeyer, 2022b). Criteria for evaluating diagnostic accuracy and cut-scores were based on the properties of the PGS in the original study (Lee & Neimeyer, 2022b), well-established psychiatric screening tests (Spitzer *et al*, 2006; Weinstein *et al*, 1989), screening indicators of complicated grief (Djelantik *et al*, 2017; Guldin *et al*, 2011), and diagnostic testing considerations (Schisterman *et al*, 2005; Simundic, 2009). Specifically, acceptable scores should yield an area under the curve (AUC) value ⩾ 0.70, the ROC curve should have a convex shape, and cut-scores should have a sensitivity value ⩾ 80%, specificity value ⩾ 70%, and a Youden index ⩾ 50. Statistical analyses were calculated using SPSS version 26.0, except for the CFA, which was run using AMOS version 25.0.

## Results

### T-Tests, ANOVA, and correlations

T-tests, ANOVA, and Pearson-product moment correlations were used to explore participant-level differences in PGS scores. The results showed that those who tested positive for Covid-19 (*M* = 8.12; *SD* = 3.19) reported higher PGS scores than those who did not test positive for the disease (*M* = 13.60; *SD* = 3.74), *t*(256.88) = 11.31, *p* < .001. Those who sought professional help to cope with their loss (*M* = 7.90; *SD* = 3.45) also yielded higher PGS scores than their counterparts (*M* = 3.72; *SD* = 3.74), *t*(240.06) = -9.97, *p* < .001. However, PGS scores were not significantly different between

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Grief | -- | | | | | | | 5.18 | 4.15 |
| 2 | Neuroticism | .34*** | -- | | | | | | 24.73 | 5.21 |
| 3 | Anxiety | .60*** | .61*** | -- | | | | | 2.92 | 1.75 |
| 4 | Depression | .60*** | .62*** | .70*** | -- | | | | 3.04 | 1.78 |
| 5 | Meaning | .79*** | .47*** | .67*** | .62*** | -- | | | 18.34 | 5.99 |
| 6 | Substance | .68*** | .28*** | .48*** | .51*** | .59*** | -- | | 1.04 | 1.00 |
| 7 | Impairment | .83*** | .46*** | .64*** | .65*** | .80*** | .63*** | -- | 17.85 | 11.14 |
| 8 | Well–Being | -.07 | -.40*** | -.34*** | -.38*** | -.21*** | -.09 | -.19** | 11.22 | 5.88 |

Table 1.: Correlations and Descriptive Statistics for Main Variables

Note: *N* = 318; *M* = mean; *SD* = standard deviation; Grief = Dysfunctional COVID–19 Grief; Meaning = Meaning–Making Difficulty; Substance = Substance Use Coping; Impairment = Functional Impairment; **p < .01; ***p < .001

males (*M* = 5.41; *SD* = 4.01) and females (*M* = 4.89; *SD* = 4.31), *t*(316) = -1.14, *p* = .26; or between Whites (*M* = 5.02; *SD* = 4.07) and non-Whites (*M* = 5.55; *SD* = 4.33), *t*(316) = 1.04, *p* = .30. PGS scores were also not correlated with age (*r* = -.05, *p* = .36) and time since loss (*r* = -.01, *p* = .39). These patterns replicated the original PGS study (Lee & Neimeyer, 2022b), except for the results on sex, with males scoring higher than females in the original study.

In terms of Covid-19 deaths (see Figure 1), the highest PGS scores were among those who lost romantic partners (*M* = 9.13; *SD* = 1.83) and immediate family members (*M* = 8.08; *SD* = 3.73). Although these two losses were not statistically different from one another, they were higher than for mourners losing close friends (*M* = 4.38; *SD* = 3.84), extended family (*M* = 3.74; *SD* = 3.73), and acquaintances (*M* = 3.43; *SD* = 3.55), *F*(4, 308) = 27.93, *p* < .001. There were no differences between acquaintances, close friends, and extended family on PGS scores. The Other relation category was omitted from this analysis because it only had five participants (1.60%). These patterns were also very similar to the original PGS study (Lee & Neimeyer, 2022b).

Pearson-product moment correlations between the PGS and the main study variables were run to examine the evidence to support the convergent and discriminant validity of the Covid-19 grief measure. As expected, PGS scores were positively correlated with the scores from measures of neuroticism, generalised anxiety, depression, substance-use coping, meaning-making difficulty,

and functional impairment (see Table 1). As Table 1 indicates, the PGS along with the ISLES-SF assessment of disrupted meaning proved to be the strongest predictors of functional impairment in family, work, and social roles. However, PGS scores were unexpectedly found to be uncorrelated with positive well-being scores. Taken together, these results not only replicated many of the findings in the original PGS study (Lee & Neimeyer, 2022b), but they also provided support for the convergent and discriminant validity of the PGS, with one exception.

## Confirmatory factor analysis

A CFA was run to test whether or not the five grief items cohere into a unified, Covid-19 grief construct as they did in the original PGS study (Lee & Neimeyer, 2022b). The results (see Figure 2) demonstrated that the single factor CFA model ($\chi2$ (5) = 8.31, p = .14) yielded excellent fit for all of indices ($\chi2$/df ratio = 1.66; CFI = 1.00; TLI = .99; SRMR = .02; RMSEA = 0.05; 90% CI [.00, .10]). Therefore, these results replicated the original PGS study (Lee & Neimeyer, 2022b) and yield further support for the factorial validity of the PGS.

## Receiver Operating Characteristic analyses

ROC analyses were used to evaluate the diagnostic viability of the PGS as a screening tool and to determine a cut score that best distinguishes individuals who experience clinically significant impairment because of a significant Covid-19 death (individuals who

*Figure 1: Mean scores of the PGS across types of relationship to the deceased*
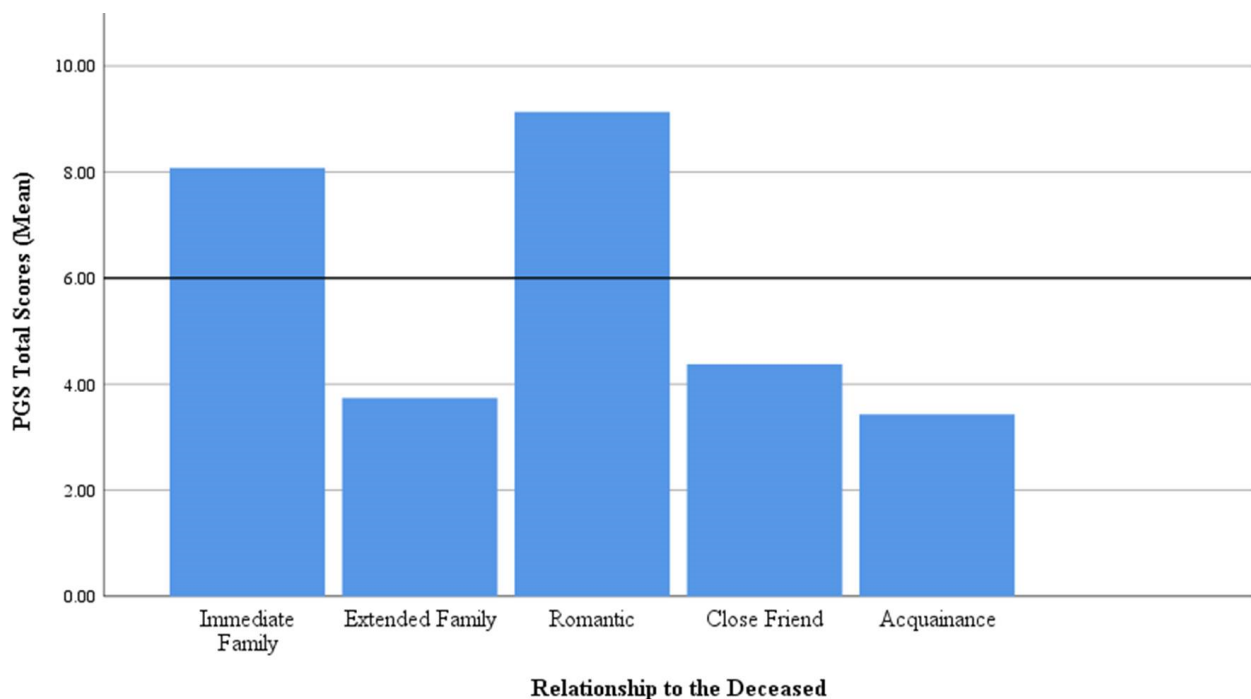


*Note:* The horizontal line indicates the clinical cut–off score of 6 for dysfunctional grief on the PGS.

scored ⩾ 21 on the WSAS; Mundt *et al*, 2002)
from those who were not impaired by this loss.
The ROC graph displayed the convex pattern
that is indicative of good discrimination ability
(see Figure 3), while the AUC demonstrated solid
diagnostic accuracy for the PGS (AUC = .91, *p* <
.001).

The results of the ROC analysis also revealed that
the PGS cut-score of ⩾ 7, which was proposed in
the original PGS study (Lee & Neimeyer, 2022b),
classified adults as having (76% sensitivity) or not
having (85% specificity) dysfunctional levels of
grief (Youden's index of 61) with a false positive
rate of 15%. However, a slightly lower PGS cut-
score of ⩾ 6 produced even better classification
properties (Youden's index of 63) with 81%
sensitivity, 82% specificity, and a false positive
rate of 18%. Disturbingly, 46.5% of the sample
(n = 148) scored at or above this cut score for
dysfunctional Covid-19 grief. Taken together,
these results support the PGS as a diagnostically
accurate mental health screening tool and
revealed that although the original cut-score of
⩾ 7 has acceptable properties, a slightly lower
cut-score of ⩾ 6 yielded optimal classification
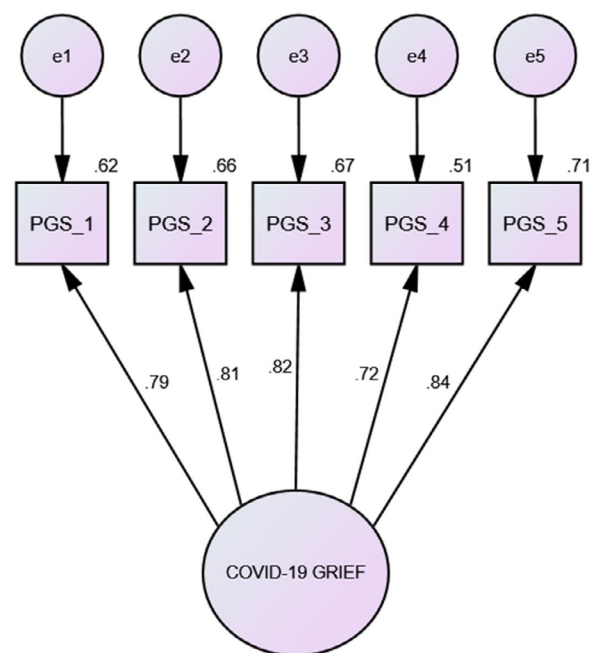for this sample.



*Figure 2: Confirmatory Factor Analysis Model for
the PGS*
*Note.* Model based on Bootstrap Maximum
Likelihood (ML) estimations (2,000 samples). All
of the standardised coefficients are significant
at the .05 level. PGS_1 = Death Wish; PGS_2 =
Identity Confusion; PGS_3 = Apathy; PGS_4 =
Difficulty Reminiscing; PGS_5 = Meaninglessness.

## Discussion

As Covid-19 continues to spread, so does the death toll and its apparently long-lasting grief-related impact, in light of our finding of essentially no relation between the severity of grief on the Pandemic Grief Sale in this sample and the passage of time. It is therefore encouraging that the PGS developed by Lee and Neimeyer (2022b) to help health professionals assess and screen bereaved individuals for dysfunctional levels of pandemic-related grief received further psychometric support in the current replication analysis using an independent sample. Overall, our results replicate the findings of the original PGS as being an accurate measure of dysfunctional pandemic-grief, though there are some differences in results relative to the original study.

The current study demonstrated that those bereaved persons who had tested positive for the disease reported higher pandemic grief than their counterparts, consistent with the findings of the original PGS study (Lee & Neimeyer, 2022b). Although speculative, we believe that personal experiences with Covid-19 symptomatology (eg, breathing difficulties) or the arousal of survivors' own death anxiety could have exacerbated the participants' grief by enhancing their empathy



*Figure 3: ROC Curve for the PGS*
*Note.* AUC = .91, p < .001

for their loved one's medical and existential struggle in the final days of their life with the disease. Similarly, individuals who sought professional help also had significantly higher pandemic grief scores than those who did not seek help, which could itself be considered a behavioural index of the PGS's construct validity. These results as well as the non-significant correlation of the PGS with age and time since loss aligned with the original study's findings (Lee & Neimeyer, 2022b). However, the non-significant results between differences in sex and race contrast with the original findings, although this can likely be explained by differences in samples and the fact that the gender difference found in the original study was small in magnitude. In terms of the losses experienced by participants, PGS scores for those who lost their romantic partners and immediate family members were the highest and significantly different from those who lost close friends, their extended family, or acquaintances. Once again, these findings closely replicated the patterns found in the original PGS study, providing further support for the measure.

The correlational findings were clear and provided further convergent and discriminant validity support for the PGS. These results were generally consistent with the results of the original PGS study (Lee & Neimeyer, 2022b), and all of the patterns were in conjunction with previous work using the PGS and similar measures of complicated grief (Breen *et al*, 2021, 2023; Milman *et al*, 2019; Mundt *et al*, 2002; Lee *et al*, 2021; Neimeyer & Burke, 2017; Stroebe *et al*, 2007). The clinical utility of the PGS was further reflected in its status as the strongest predictor, along with disrupted meaning making, of functional impairment in bereavement. Relatedly, future research should compare the PGS with established grief screening measures, such as the Brief Grief Questionnaire (Shear *et al*, 2006), as well as newly developed biopsychosocial measures of functional impairment such as the Grief Impairment Scale (Lee & Neimeyer, 2022a) to further determine the clinical value of this tool. However, additional convergent validity evidence was not found by the results of the correlation between PGS scores and positive well-being. Although this finding was not expected, another study also failed to find a significant correlation between prolonged grief symptoms and positive well-being (Marcussen et al, 2019). This could perhaps suggest that positive and negative
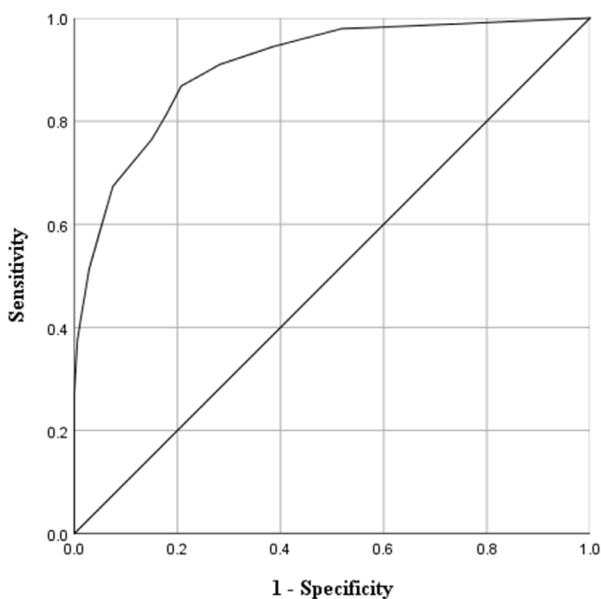
outcomes of grief, rather than being opposite ends of the same linear continuum, actually display a curvilinear relation to one another, as has been found with symptoms of complicated or prolonged grief and posttraumatic growth (Currier *et al*, 2012). Future research should seek to clarify the relation between these constructs.

The CFA and ROC findings both produced similar results to those found in Lee and Neimeyer (2022b), suggesting solid scale dependability. The CFA replicated the same single factor structure with excellent fit indices—adding to the evidence that supports the scale's factorial validity. Finally, the ROC had good discrimination ability showing that the recommended cut-off from the original scale closely fit the data, given the sensitivity and specificity criteria. However, it also showed that for this sample, a lower cut-score should be used, having a higher rate of sensitivity and Youden index score. Although these data suggest the possible use of a lower cut-score, the results also indicate the original cut-score is suitable, further demonstrating the scale's accuracy and validity.

The major limitation of the study is the smaller, convenience-based sample size. While the participants were obtained from the same MTurk source as the original PGS sample in Lee and Neimeyer (2022b), the smaller sample size may be the reason behind the slight differences in significance for sex and race. Overall, this study supports the psychometric integrity of the PGS. The results concur with that of the original findings by Lee and Neimeyer (2022b), that the PGS is an effective scale at assessing and screening dysfunctional levels of pandemic-related grief. The results confirmed the unifactorial structure of the PGS and its correlation with related constructs as predicted. However, further convergent validity support for the PGS was not found with positive well-being, suggesting the value of further research on their potentially non-linear relation. Taken together, these results suggest that the PGS should continue to be used by researchers and health professionals alike to screen for dysfunctional levels of pandemic-related grief, even or especially as the distance from the loss grows large for the many millions of mourners contending with the complicated circumstances of bereavement it engendered. The identification of those experiencing impairing levels of grief, at any phase of bereavement, can help mental health professionals provide these individuals with enhanced support and specialised care for this potentially painful and preoccupying grief.

## Note

1. In undertaking the development of a brief screening measure for dysfunctional grief in the context of the pandemic, Lee and Neimeyer (2022b) did not intend to diagnose Prolonged Grief Disorder (PGD) using the overlapping criteria of the ICD-11 or DSM 5-TR, both of which require the presence of specific symptoms focused on preoccupying yearning for the loved one, accompanied by persistent psychological distress and marked functional impairment across a protracted period of 6 or 12 months, respectively. Instead, the PGS was developed as a brief and valid screener of worrisome grief symptoms (eg, a wish to die, identify confusion, inability to recall consoling memories of the loved one) that were uniquely associated with high levels of functional impairment, at any point in bereavement. For this reason, the candidate items for the scale were drawn from observations of highly disruptive responses to Covid-19 loss, as well as from the broader sample of items on the PCBI (Lee, 2015), rather than from measures of PGD, *per se*.

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