



## Traumatic grief research and care in the aftermath of the COVID-19 pandemic

A. A. A. Manik J. Djelantik<sup>a,b</sup>, Eric Bui<sup>c</sup>, Maja O'Connor<sup>d</sup>, Rita Rosner<sup>e</sup>, Donald J. Robinaugh<sup>f</sup>, Naomi M. Simon<sup>g</sup> and Paul A. Boelen<sup>h,i,j</sup>

<sup>a</sup>Department of Psychiatry, University Medical Centre Utrecht, Utrecht, The Netherlands; <sup>b</sup>Department Youth – KOOS, Altrecht GGZ, Utrecht, The Netherlands; <sup>c</sup>Department Psychiatry, University of Caen Normandy, Caen, France; <sup>d</sup>Department of Psychology, Unit for Bereavement Research, Aarhus University/The Danish National Center for Grief, Aarhus, Denmark; <sup>e</sup>Department of Psychology, Catholic University Eichstaett-Ingolstadt, Eichstaett, Germany; <sup>f</sup>Department of Psychiatry, Massachusetts General Hospital, Boston, MA, USA; <sup>g</sup>Department of Psychiatry, NYU Grossman School of Medicine, New York, NY, USA; <sup>h</sup>ARQ National Psychotrauma Centre, Diemen, The Netherlands; <sup>i</sup>ARQ Centrum'45, Diemen, The Netherlands; <sup>j</sup>Department of Clinical Psychology, Utrecht University, Utrecht, The Netherlands

### ABSTRACT

**Background:** A significant increase in the number of individuals suffering from prolonged grief disorder is expected in the aftermath of the COVID-19 pandemic for two main reasons. First, the number of excess deaths has contributed to an immense number of bereaved individuals. Second, recent literature has shown that circumstances associated with COVID-19 deaths may be contributing to increased risk for the development of prolonged grief disorder.

**Objective:** To best support those affected by loss during the COVID-19 pandemic, it is important to inform clinicians and researchers about the development, the nature and the treatment of prolonged grief disorder and employ sound research.

**Method:** In this editorial, we discuss important themes regarding prolonged grief disorder in the aftermath of the COVID-19 pandemic, to gather and present useful information for clinicians and researchers.

**Results:** The following themes were addressed: 1. Harmonization in the diagnosis of prolonged grief disorder. 2. Screening tools and interventions. 3. Pharmacotherapy. 4. Special attention for the elderly. 5. Special attention for children and adolescents. 6. A causal system perspective for understanding grief and prolonged grief disorder.

**Conclusions:** If those involved in bereavement research and care manage to collaborate, the tragic consequences of COVID-19 might catalyse improvement of care for those most impaired following the loss of a loved one.

### Investigación y atención del duelo traumático después de la pandemia de COVID-19

**Antecedentes:** Se espera un aumento significativo en el número de personas que padecen de un trastorno de duelo prolongado como consecuencia de la pandemia de COVID-19 por dos razones principales. Primero, el número de muertes en exceso ha contribuido a un inmenso número de personas en duelo. En segundo lugar, la literatura reciente ha demostrado que las circunstancias asociadas con las muertes por COVID-19 pueden estar contribuyendo a un mayor riesgo de desarrollar un trastorno de duelo prolongado.

**Objetivo:** Para apoyar mejor a los afectados por la pérdida durante la pandemia de COVID-19, es importante informar a los médicos e investigadores sobre el desarrollo, la naturaleza y el tratamiento del trastorno de duelo prolongado y emplear investigaciones sólidas.

**Método:** En este editorial, discutimos temas importantes relacionados con el trastorno de duelo prolongado después de la pandemia de COVID-19, para recopilar y presentar información útil para médicos e investigadores.

**Resultados:** Se abordaron los siguientes temas: 1. Armonización en el diagnóstico del trastorno de duelo prolongado. 2. Herramientas de tamizaje e intervenciones. 3. Farmacoterapia. 4. Atención especial para adultos mayores. 5. Atención especial para niños y adolescentes. 6. Una perspectiva del sistema causal para comprender el duelo y el trastorno de duelo prolongado.

**Conclusiones:** Si los involucrados en la investigación y el cuidado del duelo logran colaborar, las trágicas consecuencias del COVID-19 podrían catalizar la mejora de la atención para los más afectados después de la pérdida de un ser querido.

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### 关键词

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### HIGHLIGHTS

- A significant increase in the number of individuals suffering from prolonged grief disorder is expected in the aftermath of the COVID-19 pandemic.
- The tragic consequences of COVID-19 might catalyse improvement of care for those most impaired following the loss of a loved one.

### 疫情后的创伤性哀伤研究和护理

**背景:** 在 COVID-19 疫情后, 预计患有延长哀伤障碍的人数会因两个主要原因显著增加。第一, 过多的死亡人数导致了大量丧亲者。第二, 近期文献表明, 与 COVID-19 死亡相关的情况可能会增加发生延长哀伤障碍的风险。

**目的:** 为了最好地支持那些在 COVID-19 疫情期间受到丧失影响的人, 重要的是让临床医生和研究人员了解延长哀伤障碍的发展、性质和治疗, 并进行合理的研究。

**方法:** 在本社论中, 我们讨论了 COVID-19 疫情后延长哀伤障碍的重要主题, 以收集和提供对临床医生和研究人员有用的信息。

**结果:** 讨论了以下主题: 1. 延长哀伤障碍诊断的统一。2. 筛选工具和干预措施。3. 药物治疗。4. 对老年人的特别关注。5. 对儿童和青少年的特别关注。6. 理解哀伤和延长哀伤障碍的因果系统视角。

**结论:** 如果参与丧亲研究和护理的人员设法合作, COVID-19 的不幸后果可能会促进对丧亲后受最大伤害者的护理改善。

## 1. Introduction

As of mid-April 2021, COVID-19 has led to nearly 3 million documented deaths COVID-19 MAP, 2021) worldwide. This is an alarming figure, and to make matters more alarming, it is even likely that this number is a substantial underestimation of the real number of deaths attributable to the COVID-19 pandemic (Woolf, Chapman, Sabo, Weinberger, & Hill, 2020). With an estimated nine close attachment figures bereaved by each COVID-19 death (Verdery, Smith-Greenaway, Margolis, & Daw, 2020). the pandemic has, so far, left an estimated 26 million to cope with the death of a family member.

Following exposure to stressors, such as bereavement, the majority of individuals will find a way to move forward with their lives (Bonanno et al., 2002). However, a significant minority of bereaved adults will experience grief to such an extent that daily functioning remains impaired for years following the death, a condition referred to as prolonged grief disorder (PGD). PGD now appears as a diagnosis in the 11th revision of ICD (World Health Organization, 2018) and is slated to appear in the forthcoming text revision of the Diagnostic and Statistical Manual of Mental Disorder (DSM-5-TR) (American Psychiatric Association, 2020; Prigerson, Boelen, Xu, Smith, & Maciejewski, 2021).

The COVID-19 pandemic has had a significant impact on how we experience bereavement in two important ways. First, COVID-19 deaths are likely to be sudden, and may preclude opportunities to say good-bye. Many individuals were prohibited from being with their loved ones in the hospital when they died or had their final interactions with their loved ones restricted by the need for personal protective equipment and strict quarantine guidelines. Infected patients deteriorated so fast that there was often no opportunity to notify family members before intubation. Saying last goodbyes and comforting each other, so necessary in these times of terminal illness and death, were significantly limited. Furthermore, the

deaths may be perceived as capricious in regard to who dies from this illness and who does not, bereaved may be especially prone to counterfactual ('what if') thinking, and may elicit feelings of anger, bitterness, or guilt directed to those from whom the coronavirus was transmitted. Secondly, there is great interference from the pandemic in mourning and grief after the death of a loved one. For many, funerals could not be attended, traditional rituals were hampered, and social support was unavailable, limited, or entirely remote (e.g. through telephone or email).

Although more research is needed, current estimates conservatively suggest 10% of those who lose a close attachment to natural causes will develop PGD (Lundorff, Holmgren, Zachariae, Farver-Vestergaard, & O'Connor, 2017). This means that a roughly estimated 2.6 million new cases of PGD may arise from COVID-19 in the coming years (i.e. 10% of 26 million bereaved family members and intimates (Verdery et al., 2020)). This rough estimate of PGD prevalence rates might be conservative as it does not account for the many factors related to the pandemic that may increase the risk of PGD development (Simon, Saxe, & Marmar, 2020; Stroebe & Schut, 2021). Early studies have found indications that COVID-19-related bereavement has indeed led to higher intensity of grief in the months following loss. For example, a recent study found that the intensity of acute grief in those bereaved by COVID-19 losses was greater than grief intensity among those bereaved by natural illness not related to the pandemic (Eisma, Tamminga, Smid, & Boelen, 2021). Other studies (Lee & Neimeyer, 2020; Tang, Yu, Chen, Fan, & Eisma, 2021) reported, respectively, about ~30% and ~66% positive screens for problematic grief. These screeners were administered during the acute phase of the COVID-19 and they may not on their own reliably predict PGD development or persistence. Taken together, the excess deaths due to the pandemic, and the possible increased risk for developing PGD after COVID-19 related deaths, make it likely that there will

be many bereaved individuals coping with mental health difficulties in the coming years. PGD cannot be overlooked in the aftermath of the COVID-19 pandemic.

To optimally support those affected by loss during the COVID-19 pandemic, it is important to inform the public, clinicians and other researchers about the nature and treatment of PGD and to continue generating sound research data. To move towards this aim, we, as the expert panel for the Virtual Conference 2021 of the European Society for Traumatic Stress Studies (ESTSS): ‘Trauma and Mental Health during the Global Pandemic’, have gathered important themes about PGD in these challenging times. In this editorial we will present an overview of these themes, discuss literature that offers useful information for clinical practice, and formulate future directions for research during the aftermath of the COVID-19 pandemic.

## 2. Overview of themes

### 2.1. Harmonization in the diagnosis of prolonged grief disorder

After decades of accumulating evidence that PGD is distinguishable from other forms of psychopathology that commonly arise following bereavement, there is now a broad consensus among grief researchers regarding the need for a diagnosis representing persistent and severe grief. Recently, important steps have been taken in generating agreement about the criteria and name for this diagnosis. As a result of these collaborative efforts, prolonged grief disorder (PGD) was recently added to the 11th revision of ICD (World Health Organization, 2018) and will be included in section II of the forthcoming DSM-5-TR (Prigerson et al., 2021) replacing persistent complex bereavement disorder in section III (American Psychiatric Association, 2020).

There are significant similarities between PGD in ICD-11 and DSM-5-TR. Both conceptualize prolonged grief as acute grief that has persisted over time and remains distressing and disabling, both include separation distress, in the form of yearning or preoccupied thoughts, as mandatory symptoms, and both list anger, numbness, and avoidance of loss-related cues as examples of accompanying symptoms. Still, overlap is not entirely complete; the number of symptoms required in ICD-11 is not clearly defined as diagnosing with this system is meant for clinical interviews and judgements, which makes the number of symptoms required for a diagnosis for PGD in ICD-11 lower than PGD in DSM-5-TR. Furthermore, the timing criterion is shorter for PGD in ICD-11 than PGD in DSM-5-TR ( $\geq 6$  months and  $\geq 12$  months, respectively). As a result, the ICD-11 criteria likely yield

higher prevalence rates than the DSM-5-TR criteria (Boelen & Lenferink, 2020).

It may well be possible that the clinical utility of both criteria sets for PGD is similarly sound. Yet, differences may have practical implications for bereaved people: in countries using ICD-11, access to health services and compensations for care may be facilitated at 6 months after the loss, and in countries using the DSM-5-TR (e.g. the Netherlands) this may only be done after 12 months. The differences between systems may also bring problems to the interpretation and generalization of research findings. For instance, if 10% of a population meets criteria for PGD following COVID-related bereavement as per ICD-11, this does not necessarily mean that 10% also meets criteria for PGD as defined in DSM-5-TR. Similarly, if a particular intervention yields a moderate effect size in alleviating PGD according to one of these diagnostic systems, it does not mean that it will yield a similar effect size in reducing PGD according to the other.

Taken together, the inclusion of PGD in both major diagnostic systems is unequivocally an important step forward that will better equip clinicians to identify those in need of bereavement care, including those who have experienced loss during the COVID-19 pandemic. However, it is still an outstanding question whether the differences between systems in terms of clinical utility, diagnostic validity, and prevalence rates, correlates, and treatments are small enough to be neglected or large enough to be problematic. Research addressing these questions is urgently needed. If differences between systems block advances in bereavement research and care, we should urgently strive for further harmonization of both systems.<sup>1</sup>

### 2.2. Screening tools and interventions

Because of a growing awareness that bereavement can cause serious mental health problems, there is a great need to attend to ways to reduce risk where possible as well as plan for screening and services for those struggling most following the death of a loved one (Killikelly, Smid, Wagner, & Boelen, 2021).

First, it is of great importance to further develop screening tools which will help in distinguishing between bereaved people who are likely to recover on their own (or need counselling at best) and those with persistent grief who are likely to benefit from professional help. Efforts to create such tools have been undertaken (Djelantik, Smid, Kleber, & Boelen, 2017; Guldin, O'Connor, Sokolowski, Jensen, & Vedsted, 2011; Lee & Neimeyer, 2020; Shear, Jackson, Essock, Donahue, & Felton, 2006) However, all these studies found different sets of symptoms and not one has proven to be the golden standard.

Regarding public health or preventive interventions, a recent review of largely qualitative research

from prior pandemics (e.g. Ebola) found a few themes most helpful for positive outcomes for the pandemic bereaved: supporting care related decision-making prior to the death, finding creative ways to honour religious and cultural death rituals now and/ or planned for post pandemic, and creating safe opportunities for social connection (Mayland, Harding, Preston, & Payne, 2020). This is consistent with expert recommendations (e.g. APA Committee on the Psychiatric Dimensions of Disaster and COVID-19 (2020)).

For individuals with diagnosed PGD, several therapies exist that have been proven to be effective in randomized control trials, including complicated grief treatment (CGT: Shear, Frank, Houck, and Reynolds (2005)) and cognitive behavioural therapy for grief (CBT: (Boelen, de Keijser, van den Hout, & Van Den Bout, 2007; Bryant et al., 2014; Rosner, Pfoh, Kotoučová, & Hagl, 2014)). Furthermore, there are promising developments in treatment that are in need of more research. Present-centred therapy (PCT; Shea, Davis, Howard, Key, and Lambert (2003)) was originally developed as an active control condition for the non-specific effects of psychotherapy in the treatment of posttraumatic stress disorder. PCT is a supportive treatment largely applying non-directive counselling interventions, with two adaptations: It is structured and homework is assigned between sessions. The empirical support for PCT has grown substantially in the last years (Belsher et al., 2019). In a first feasibility study (Vogel et al., 2021) a significant decrease in interview-based PGD symptom severity at posttreatment ( $d = 1.26$ ) was found as well as significant decreases in self-reported PGD symptoms, depression, and general psychological distress. Decreases were maintained up to the 3-month follow-up assessment ( $d = 1.25$ ). PCT is an interesting and promising treatment option as mechanisms of change are theoretically different from CBT. Therefore, it may develop to be a treatment option for patients not motivated to participate in CBT or differential treatment indications may emerge. An ongoing trial compares PCT and CBT and will answer this question (Rosner, Rimane, Vogel, Rau, & Hagl, 2018).

We may also be expecting a lot from advances in online treatment for problematic grief. Wagner, Knaevelsrud, and Maercker (2006) were among the first to study the impact of an online CBT-based writing treatment, focusing on exposure, altering maladaptive cognitions, and restoration-oriented coping. They found this treatment to effectively reduce loss-related posttraumatic stress and general psychopathology. Eisma et al. (2015) examined the relative impact of online exposure and behavioural activation; both approaches alleviated PGD and PTSD symptomatology and grief-related rumination (a maintaining

mechanism of difficulties in recovery from loss), albeit that behavioural activation was considerably less acceptable for participants than exposure, yielding high dropout rates. Other studies found similarly promising results for online treatment for bereaved individuals (e.g. Kersting et al. (2013), van der Houwen, Schut, Van Den Bout, Stroebe, and Stroebe (2010)). Litz et al. (2014) found that internet-based treatment successfully prevented PGD among people bereaved less than 1 year earlier. These findings are all encouraging and indicate that internet-based treatments hold promise in meeting the growing need for bereavement care. More work is urgently needed to study the impact of internet-based treatment for specific groups, including traumatically bereaved people, the impact of therapist guided vs. non-guided treatment, and the relative effectiveness of different interventions focused on expressive writing, cognitive change, and improved loss-orientated and restoration-oriented coping. Internet also offers opportunities for remotely delivered therapy, using videoconferencing. This approach, born of necessity, is increasingly used in these times of corona. Clinical experience shows that it is potentially a valuable alternative or addition to face-to-face therapy, offering new opportunities for exposure to stimuli, exchange of information, and combinations of synchronous and non-synchronous treatment (Boelen, Eisma, Smid, Keijser, & Lenferink, 2020)

### 2.3. Pharmacotherapy

While different treatment interventions, including CBT (CBT: Bryant et al., 2014; Boelen et al., 2007, Rosner et al., 2014) and complicated grief treatment (Shear et al., 2005) have proved their efficacy in treating PGD, these treatments are not yet widely available. Alternative treatment options, including pharmacological treatments for PGD are needed. Early research on bereavement-related depression found that tricyclic antidepressants were efficacious on depressive symptoms but had limited to no efficacy on grief symptoms (e.g. Reynolds et al. (1999)). Further, despite initially promising efficacy data for serotonin reuptake inhibitor antidepressants (e.g. Simon et al. (2008)), a randomized controlled trial ( $N = 395$ : Shear et al. (2016)) examining the effect of flexible dose of citalopram (median = 40 mg/day) on PGD symptom severity with and without concurrent psychotherapy, failed to show any efficacy of citalopram vs placebo, nor any additional benefits of citalopram for those receiving psychotherapy. Citalopram was, however, efficacious in reducing depressive symptom severity but only for those receiving psychotherapy.

Recent advances in the understanding of the pathophysiology of PGD (M. F. O'Connor & McConnell, 2018) should be leveraged to identify new pharmacological targets. First, neuroimaging data reported



increased ‘craving’-related activity in the nucleus accumbens in individuals with PGD compared to bereaved controls (O’Connor et al., 2008), suggesting a potential role of the reward system and dopaminergic activity (Willuhn, Wanat, Clark, & Phillips, 2010) in the pathophysiology of PGD. Agents blocking dopaminergic transmission (i.e. antipsychotic agents) might in theory have some effects on craving (and longing in grief) though their use in the treatment of substance-use disorders have yielded mixed results (Hamilton, Nguyen, Gerber, & Rubio, 2009; Kampman et al., 2007; Loebel et al., 2008; Ray, Chin, Heydari, & Miotto, 2011). Second, the phenomenology of PGD and its pathophysiology are posited to involve the attachment system. In line with this, recent data suggest that individuals with PGD may exhibit higher circulating levels of oxytocin compared to bereaved controls and those with depression (Bui et al., 2019), suggesting that compounds modulating the oxytocin system should also be explored. Third, accumulating data recently pointed to the central role of emotional pain in the development and maintenance of PGD (Frumkin et al., 2021; Robinaugh, Millner, & McNally, 2016). Neurobiological processes involved in emotional pain overlap with those of physical pain, suggesting a potential role of pain medication for emotional pain, a core symptom of PGD. In fact, the analgesic medication paracetamol/acetaminophen has been reported to reduce social pain (DeWall et al., 2010; Slavich, Shields, Deal, Gregory, & Toussaint, 2019), a very closely related construct to PGD. Clearly, future research on the compounds targeting the pain pathways including the cannabinoid and opioid pathways, as suggested by some (Deckman, DeWall, Way, Gilman, & Richman, 2014; Nobile, Lutz, Olié, & Courtet, 2020) are warranted. Fourth, there has been a recent resurgent interest in psychedelic agents for mood and anxiety disorders (Bui, King, & Melaragno, 2019). In line with this, two recent observational studies reported large reductions in grief symptoms in chronically grieving bereaved individuals receiving ayahuasca, a brewed beverage derived from two Amazonian plant species, containing dimethyltryptamine (DMT) and its precursor, during a ceremonial (González et al., 2020). Psychedelic agents have historically been used as adjuncts to psychotherapy starting in the 1970’s. Research examining the efficacy of psychedelic-assisted therapies for a range of conditions are currently underway, including post-traumatic stress disorder and major depressive disorder, suggesting potential adaptation for PGD, given symptom overlap with those conditions (e.g. rumination).

Taken together, currently available data are insufficient to support the use of any medication for PGD as a primary diagnosis. Individuals with comorbid depression or PTSD might benefit from FDA/EMA-

approved antidepressant medications, although recent data suggest that they may not be efficacious on those conditions if PGD is the primary concern (Na et al., 2021; Shear et al., 2016).

#### 2.4. Special attention for older adults

A pandemic is hard and restricting for us all, but the burden of COVID-19 has fallen disproportionately on the shoulders of older adults. Most saliently, older adults are those most likely to die from this disease (Pastor-Barriuso et al., 2020). This means they must be even more careful about whom they see and where they go than younger people. They are also the most likely to experience the death of a loved one due to COVID-19 (Verdery et al., 2020). Consequently, in a pandemic, older people have reasons to fear dying, reason to fear losing a loved one, and reason to fear being isolated and alone.

Loving, losing, and grieving are social experiences. Grief is about making and breaking of attachment, and grieving is something we do together (Bowlby, 1980). This is challenged in a pandemic, especially for those who live alone, as more and more old people, especially older women, do (Pleschberger, Reitingner, Trukeschitz, & Wosko, 2019). Older bereaved adults have not been able to enter their usual social arenas in social hobbies, religious activities, or family gatherings and many of them were alone at holidays such as Christmas, where grief is often especially intense, during the pandemic.

Despite the challenges faced by older adults during the COVID-19 pandemic, there is good news as well. Perhaps most encouragingly, older adults are often very resilient. Even outside a pandemic, older people have often experienced many losses in their lifetime (M. O’Connor & Elklit, 2015). Yet, in spite of these losses, older people often manage their lives well and are even more satisfied with life than younger adults (Mehlsen, 2005). Accordingly, there is good reason to think that many older adults have innate strengths that confer resilience. Just as importantly, there is evidence that therapy for older bereaved people is just as effective as for younger adults (Denning & Thomas, 2013; Johannsen et al., 2019; Shear et al., 2014). Different interventions, such as mindfulness-based cognitive therapy and especially complicated grief treatment are promising treatment for older adults with disordered grief (M. O’Connor, Piet, & Hougaard, 2014; Supiano & Luptak, 2014). The efficacy of cognitive behavioural therapy with older people with anxiety, depression, and PTSD is well established (Dinnen, Simiola, & Cook, 2015; James, 2010), and lessons learned from this work may be useful in relation to older clients with PGD. More time and attention may be required to complete therapeutic tasks because older people often have physical limitations such as

auditory and visual deficits and lower reserve capacity (James, 2010). This can be met with slower pace, clearer articulation, better lighting, less background noise, shorter sessions etc. based on the individual needs of the specific client. Older people also have a tendency to 'drift' in their conversation in directions that might not be relevant to the aim of the therapy, probably due to long and complex life stories and less experience with therapy (Laidlaw, Thompson, Gallagher-Thompson, & Dick-Siskin, 2003). Keeping track of both the primary target of the therapy and relevant information from the very long-life history is therefore a special challenge for therapists working with older clients.

Taken together, older bereaved people are at risk in a pandemic but we possess the tools to provide them support. Accordingly, there is every reason to pay special attention to our ageing populations in the time of corona both as professionals and in our everyday lives.

### 2.5. Special attention for children/ adolescents

Losses due to COVID-19 will also affect the lives of many children (Verdery et al., 2020). Unfortunately, relative to research on prolonged grief disorder in adults, research on the assessment and treatment for children and adolescents has been limited and faces unique challenges that must be overcome if we are to learn how best to support bereaved children both within and beyond the COVID-19 pandemic.

For measurement, the development of a validated tool has been limited by the same challenges in developing consensus criteria around prolonged grief in adults. However, there are additional challenges that face the assessment of grief in children. A valid measure needs not only be adapted in terms of criteria, but also in terms of age adequate language and concepts of deaths related to different developmental stages (see (Andriessen, Hadzi-Pavlovic, Draper, Dudley, & Mitchell, 2018); Kaplow et al. (2018)). To meet this need, a number of measures for children and adolescents have been newly developed and adapted to the new criteria are in the process of being validated.

In terms of treatment, older meta-analyses (Currier, Holland, & Neimeyer, 2007; Rosner, Kruse, & Hagl, 2010) showed that treatments were only moderately effective and studies varied widely in terms of design, methods and interventions studied. Promising findings have been observed for treatments for bereaved families and children confronted with traumatic bereavement (Layne et al., 2008; Sandler et al., 2010) but their impact on PGD symptomatology is unclear. In a recent randomized controlled trial, Boelen, Lenferink, and Spuij (2021) compared CBT focused on PGD (called CBT GriefHelp) with nondirective supportive counselling for bereaved children

and adolescents suffering PGD. Both treatments encompassed nine individual sessions with children/ adolescents, plus five sessions of counselling with parents (or caretakers). Both treatments yielded reductions in PGD symptoms, posttraumatic stress, depression, and parent-rated problem behaviours. Importantly, reductions in PGD were stronger in the CBT GriefHelp condition and, looking at the follow-up assessments, CBT GriefHelp was much more effective in terms of alleviating posttraumatic stress, depression and parent-rated problems, in the longer run. That PGD in children and adolescents may be successfully alleviated using a relatively brief, individual grief-focused treatment is encouraging and may give an impetus to bereavement care for this age group.

Of great importance too are outcomes from a secondary analysis of a randomized controlled trial on paediatric PTSD, comparing treatment outcomes of young people reporting losses as index event vs. those who endorsed sexual abuse or physical violence vs. a waiting list control (Unterhitzberger, Sachser, & Rosner, 2020). Young people with losses improved significantly ( $d = 1.69$ ) more than those in the control condition ( $d = 0.23$ ). Moreover, their improvement was larger than those reporting sexual or physical abuse as index event ( $d_s = 1.51$  and  $1.42$ , respectively). Although this study focused on PTSD rather than prolonged grief, outcomes do suggest considerable progress for this intervention as a means of treating loss-related psychopathology. This is noteworthy given that even non-sudden losses can elicit the PTSD syndrome (Boelen & Spuij, 2013; Cohen & Mannarino, 2011; Kaplow, Howell, & Layne, 2014) and, PTSD symptoms overlap with those of prolonged grief. Accordingly, future studies investigating the effect of this intervention on prolonged grief may further inform advances in bereavement care for bereaved children and adolescents.

Associations between trauma and childhood adversities and the development of psychopathology are getting more and more attention (Allsopp, Read, Corcoran, & Kinderman, 2019) and have been found quite robust with regards to depression (Mandelli, Petrelli, & Serretti, 2015), anxiety (Lindert et al., 2014), obsessive compulsive disorder (Barton & Miller, 2015), functional neurological disorder or conversion (Ludwig et al., 2018), dissociation (Vonderlin et al., 2018), eating disorders (Bus et al., 2014), schizophrenia and psychotic disorders (Palmier-Claus, Berry, Bucci, Mansell, & Varese, 2016), and bipolar disorders (Palmier-Claus et al., 2016). It could be, that if we are able to help our children/ adolescent cope with their trauma and loss today, in the aftermath of the COVID-19 pandemic, we help to prevent other mental disorders in the future.

## 2.6. A causal systems framework for understanding grief

The COVID-19 pandemic has served as a critical reminder that grief does not occur in isolation. Although diagnostic criteria and prominent theories of prolonged grief focus principally on cognitions, emotions, and behaviours that operate at the level of the individual, grief is inherently social: inextricable from the relational and social structures in which it occurs. During the COVID-19 pandemic, we have seen these social structures altered in a way that are unprecedented in modern times. As we have reviewed, the pandemic has disrupted our ability to be with our loved ones in their final moments and too often prevented us from being with others in our grief. The absence of these social processes for so many individuals remind us how fundamental these processes are to the experience of grief and should make clear that a complete understanding of prolonged grief, and a fully realized ability to support those suffering with it, will require that we better understand precisely how grief both affects and is affected by the social and cultural context in which it occurs.

To further our understanding of how these social processes interact with grief, it may be helpful for researchers to conceptualize grief, not as an underlying disease entity that gives rise to a set of symptoms, but rather as a causal system in which the symptoms of PGD (including yearning and preoccupying thoughts about the deceased) causally interact with one another and a host of other biological, psychological, and social factors (Robinaugh, LeBlanc, Vuletich, & McNally, 2014). For example, the impact of ongoing quarantine may most directly affect the PGD symptom of intense loneliness, which, in turn, may engender thoughts about one's loved one and intense yearning to be reunited with them. Conversely, the circumstances around the transmission of the coronavirus that led to a loved one's death may have their effect by eliciting intense counterfactual thinking about how the death could have been prevented, preoccupying thoughts that lead to anger, bitterness, and, in turn, difficulty moving on with life. This conceptual framework as a biopsychosocial causal system has provided a fruitful lens from which to investigate how risk factors affect the prolonged grief disorder syndrome (Djelantik, Robinaugh, Kleber, Smid, & Boelen, 2019; Maccallum & Bryant, 2020) and may prove similarly useful in better understanding the impact of COVID-19 on prolonged grief, thereby informing our understanding of how best to support those suffering from prolonged grief during this pandemic.

## 3. Conclusions

In this editorial we have presented an overview of themes, reviewed literature for useful information for

clinical practice and formulated possible future directions in research during the aftermath of the COVID-19 pandemic. First, it is essential to harmonize the PGD diagnostic criteria in both the ICD-11 and DSM5-TR. Second, the development of better screening tools and the implementation and dissemination of interventions for the different stages of the development of PGD are needed. Third, there is a paucity of research regarding pharmacotherapy for PGD and there are many potential directions to investigate, especially to target comorbidities such as depression, in combination with psychotherapy or for those who do not respond well to psychological interventions. Fourth, we need to specially focus on the elderly, which is the population for which the pandemic has had the greatest impact. Fifth, the children/ adolescent that are confronted with loss during the pandemic must not be forgotten, especially because they might otherwise be also at increased risk for other psychiatric disorders. Lastly, understanding grief and PGD from a causal system perspective where psychological, biological, and social components are combined, might create new ways to intervene to protect the most vulnerable after the loss of a loved one.

It is important to note that not only prevalence rates of PGD differ between the application of the ICD-11 criteria or the DSM-5 criteria, but also across different cultural groups (Stelzer, Zhou, Maercker, O'Connor, & Killikelly, 2020). There are reports of higher (Zhou et al., 2020) and much lower prevalences of PGD (Djelantik, Putu, Boelen, Cokorda, & Kleber, 2021) in non-western parts of the world. These findings underline that grief must not be understood as a process in a vacuum but that it is influenced by a wide range of factors such as social networks, cultural contexts and societal constellations. This also applies for understanding PGD in the aftermath of COVID-19. For example, do PGD prevalences rise in places where the sole breadwinner of a family dies due to COVID and his/her family has to fear social decline? And what must interventions look like in societies with a collectivistic orientation? It could be that public health interventions and collective rituals will be more effective than western individual-centred psychotherapy. These are all important issues to address in future traumatic grief research

If you consider the death of a loved one as a major life stressor alongside an attachment loss that brings with it many practical stressors related to recreating a life without the deceased, it is not surprising that some will develop stressor-related conditions such as PGD, depression, anxiety and alcohol use disorders. You can imagine that a grief disorder may be considered a stalling of progression to a more integrated grief state with a combination of symptoms related to traumatic and separation distress. Losing a loved one has been found to be associated with many other



psychiatric disorders such as depression, panic disorder, manic episode, phobias, alcohol use disorders, and generalized anxiety disorder (Keyes et al., 2014). It is therefore critical that we act now and bring our field forward by collaborative research and clinical practice and protect bereaved individuals in a very vulnerable time: The time of mourning and finding a new balance in life, after losing a loved one due to COVID-19.

## Note

1. Here, it is relevant to consider the distinction between a *constitutive relationship* and an *indexical relationship* between a mental disorder and its criteria (Kendler, 2017). From a constitutive viewpoint, we assume that criteria define the disorder, implying that PGD as per DSM-5-TR and ICD-11 can only be diagnosed when one *exactly* meets criteria for these disorders. From an indexical viewpoint, criteria are fallible indices of a tentative diagnostic construct; therefore, it doesn't make much of a difference if we use criteria from either DSM-5-TR or ICD-11, because they largely identify the same group of people. The latter viewpoint, obviously, makes more sense. Moreover, loosely paraphrasing Kendler (2017) and referring to Meehl (2006), having different sets of putative markers of 'disordered grief' strengthens the nomological network of this construct, which helps to improve its construct validity.

## Conflicts of interest

The authors have no conflict of interest to report in relation to the present article.

## Contributions of authors' statement

MD produced the first draft of the manuscript. All authors contributed to and have approved the final manuscript.

## Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article.

## ORCID

A. A. A. Manik J. Djelantik  <http://orcid.org/0000-0001-5146-4751>  
 Maja O'Connor  <http://orcid.org/0000-0001-7288-8633>  
 Rita Rosner  <http://orcid.org/0000-0002-7960-8398>

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