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# Living with loss: a cognitive approach to prolonged grief disorder – incorporating complicated, enduring and traumatic grief

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## Introduction

In cognitive behavioural journals and scientific meetings, the subject of grief seems to receive less attention than other emotional states, such as anxiety or depression. Grief is recognised as a normal human reaction to the death of a loved one and incorporates unpleasant, potentially distressing emotions, psychological phenomena, such as intrusive images, and physical sensations. Understandably, there has been reluctance to pathologise grief responses. However, the COVID-19 pandemic has put the subject of death centre stage as millions of people worldwide have been bereaved in extraordinary circumstances. Psychological therapists have been asked to provide effective therapeutic responses for clients with enduring distressing grief reactions.

In this paper, we draw on decades of research and clinical expertise from our experience in applying cognitive therapy for post-traumatic stress disorder (PTSD) to enduring grief reactions. We derive lessons learned for treating prolonged and traumatic bereavement. Many of the clinical trials at the Oxford Centre for Anxiety Disorders and Trauma and Omagh/Queen's University Belfast trauma centres have included patients who have experienced significant traumatic loss (Duffy *et al.*, 2007; Ehlers *et al.*, 2014; Ehlers *et al.*, 2022).

During the pandemic the authors of this paper delivered several workshops on prolonged and traumatic grief where clinicians raised a number of thought-provoking questions. Our responses form the basis of this paper.

- (1) How do we differentiate between normal and abnormal or pathological grief?
- (2) How should we describe or categorise or label pathological grief, and is it a specific and distinct condition or disorder?
- (3) How effective are existing therapies for prolonged and traumatic grief and is there a role for CBT in the treatment of these conditions?
- (4) Can our experiences with cognitive therapy for PTSD (Ehlers *et al.*, 2005) help with these conditions or are different techniques and skills required?

The purpose of this paper is to answer these important questions and in so doing, consider the historical and theoretical concepts relating to complex and traumatic grief; factors that differentiate normal grief from abnormal grief; and maintenance factors as well as implications for CBT treatments.

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## (1) How do we differentiate between normal and abnormal or pathological grief?

### *Experience of grief*

For most bereaved people, any initial intense emotions reduce within weeks and months. However, a proportion of bereaved relatives experience difficulties that persist rather than diminish over time, ranging between 10% (Kersting *et al.*, 2011) and 20% (Shear *et al.*, 2011), and many do not seek clinical help (Lichtenthal *et al.*, 2011) despite significant social impairment.

Studies have demonstrated that resilience to persistent grief is shown by around half (between 45 and 65%) of bereaved individuals (Bonanno *et al.*, 2002; Mancini *et al.*, 2015). In a 6-year study of tourists who survived tsunamis (Sveen *et al.*, 2018), most bereaved were resilient (41%) or recovered (48%), with a minority reporting chronic grief reactions (11%). In an 18-month study of grief trajectories, Smith and Ehlers (2020) found that 40.7% of bereaved adults reported low levels of grief throughout the study period. Most bereaved individuals adjust and are able to re-connect with society and re-engage in pleasurable activities (Bonanno *et al.*, 2002; Mancini *et al.*, 2015), even after a major loss (Wortman and Silver, 1989).

In the literature different terms are used to categorise pathological grief reactions, including complicated grief (CG), traumatic grief (TG), prolonged grief disorder (PGD), and prolonged complex bereavement disorder (PCBD). In this paper we will use the terms uncomplicated grief (UG), complicated grief (CG) and prolonged grief disorder (PGD), the term now accepted within the ICD-11 and the DSM-5 diagnostic manuals.

### *Uncomplicated vs prolonged grief*

When feelings of grief wane and the bereaved person experiences positive emotions alongside episodes of sadness and loss, their experience is described as uncomplicated grief. In complicated grief, however, episodes of grief are frequent, prolonged and more intense. In UG there is a reduced longing for the deceased and gradual acceptance of the death, whereas with prolonged grief, a sense of intense yearning persists. In UG, memories of the deceased are interspersed with other memories, but in prolonged and traumatic grief, the bereaved can be engrossed in long periods of thinking about the deceased. They may be ambivalent or unable to accept the death. They may be pre-occupied with or dwell upon the death, which can trigger intrusive images of how the person died. In UG, life still holds meaning and purpose, therefore, despite feeling sad and missing the deceased, the bereaved are able to resume activities and develop relationships. However, with prolonged grief, avoidance and social withdrawal are more enduring features and predict worse outcomes for those bereaved (Smith and Ehlers, 2020). Prigerson *et al.* (1995) have proposed that the most useful items to differentiate complicated grief from uncomplicated grief are: shock; intrusions about the deceased; resentment about the death; psychic numbing (being stunned or dazed by the loss); functional impairment; hostility and avoidance of reminders of the death.

## (2) How should we describe or categorise or label pathological grief? Is it a specific and distinct condition or disorder?

### *Terminology and co-morbidity*

Various terms have been used to define enduring and severe forms of grief reactions such as prolonged, complex, complicated and traumatic. The range of terminology reflects a historical lack of consensus in the field about how to categorise complex grief (Stroebe *et al.*, 2000), and whether prolonged and complicated grief requires a distinct diagnostic category (Prigerson *et al.*, 2009; Stroebe *et al.*, 2001). It is recognised that bereaved individuals can develop a number of psychological disorders such as depression (Zisook *et al.*, 1994), anxiety disorders (Jacobs *et al.*, 1990) and PTSD (Murphy *et al.*, 1999; Schut *et al.*, 1991). There are also high rates of co-occurrence between complicated grief and other disorders. A review by

Komischke-Konnerup *et al.* (2021) estimated that up to 70% of adults meeting criteria for prolonged grief disorder (PGD) experienced one or more other type of complicated grief reaction, whilst 46% experienced two or more other types of complicated grief reactions. The review estimated that co-occurring disorders with PGD were as follows: depression (63%), anxiety (54%) and PTSD (49%). In a review specifically focusing on mental disorders in widowhood, the pooled prevalence reported in studies for depression was 40.6% and 26.9% for anxiety disorders (Kristiansen *et al.*, 2019).

### **Complex grief vs major depressive disorder**

There are distressing symptoms amongst those with severe bereavement reactions that do not seem to be adequately captured by broader diagnostic categories (Prigerson *et al.*, 1997). For example, when comparing major depressive disorder (MDD) with complex grief (PGD), there are subtle and important differences. The all-encompassing loss of interest and pleasure in MDD is different to the loss of interest and pleasure in PGD, which is linked to an intense yearning for the company of the deceased. Repeated proximity seeking behaviours to the deceased common in PGD are not relevant to MDD, and the attentional focus on loss characterises PGD and not MDD. Pre-occupation with thoughts and memories of the deceased in PGD are similar to, but different from, ruminations of perceived failures in MDD. Finally, social withdrawal is common in both MDD and PGD, but in CG, there is a more specific avoidance of activities, situations and people associated with the deceased.

### **Categorisation of complex grief**

In the most recent edition of the International Statistical Classification of Diseases and Related Health Problems (ICD-11) (World Health Organization, 2012), PGD was installed as a new diagnostic category. In contrast to ICD-11, the authors of the fifth edition of the *Diagnostic and Statistical Manual for Mental Disorders (DSM-5; American Psychiatric Association, 2013)* initially decided that the evidence was not yet sufficient to merit a formal diagnostic category. Instead, when *DSM-5* was published, a set of criteria for ‘prolonged complex bereavement disorder’ (PCBD) was inserted in the appendices as a condition requiring further study. However, in November 2020, the American Psychiatric Association Assembly approved the formal inclusion of PGD as an update to the *DSM-5* (Prigerson *et al.*, 2021) indicating a growing international consensus on definitions and diagnostic criteria for the disorder. One important difference between the two classification systems is the duration of the symptoms required to meet the diagnosis: *DSM-5* requires symptoms to persist for a minimum of 12 months; ICD-11 requires a minimum of 6 months.

The core element of prolonged grief definitions for *DSM-5* and ICD-11 diagnostic categories is persistent yearning for or intensely missing the deceased, or pre-occupation with the circumstances of the death. Yearning is an intense longing for the deceased to return and fill the void created by the loved one’s death. Additional symptoms include: difficulty accepting the death, feelings of loss of a part of oneself, anger about the loss, guilt or blame regarding the death, or difficulty engaging with new social or other activities due to the loss.

However, questions remain. For example, it is unclear whether the ICD-11 (World Health Organization, 2012) category for PGD conceptualises complicated grief as a homogenous diagnosis, or whether there are sub-categories relating to traumatic grief or traumatic loss. Stroebe *et al.* (2005) have made a case for complicated grief to be considered separately from traumatic grief. They contend that the distinction between the two relates to the theoretical underpinnings unique to each condition. Whereas traumatic grief arises from ‘abnormal’ traumatic life events and its aetiology is informed by theories of post-trauma psychopathology, complicated grief is typically associated with ‘normal’ life events, i.e. death and bereavement,

and is informed by attachment theories, which emphasise the nature of the relationship with the deceased. Such deliberations raise questions about whether trauma-based models derived from traumatic stress research, or loss-based models linked to attachment theories, are best placed for guiding treatment development and delivery.

### **Predictors of prolonged and complex grief**

It is not possible to provide a comprehensive list of risk factors for PGD within the scope of this paper. However, in a review of published studies, Prigerson *et al.* (2009) report risk factors and clinical correlates of PGD: a history of childhood separation anxiety; controlling parents; parental abuse or death; a close kinship relationship to the deceased; insecure attachment styles; marital supportiveness and dependency; and lack of preparation for the death. These variables suggest that attachment issues may be relevant to vulnerability to PGD.

Type of loss experienced does seem to influence rates of chronic grief with higher rates being reported for violent traumatic death (Currier *et al.*, 2006). Child loss has been found to be a strong predictor of chronic grief (Meert *et al.*, 2011; Sveen *et al.*, 2018). In a population-based prevalence study (Kersting *et al.*, 2011), highest rates of complicated grief were for bereaved individuals who had lost a child (23.6%), followed by loss of a spouse (20.3%), violent death (20%), suicide (18.1%), and death by cancer (10.1%). High risk predictors for developing complicated grief were female gender, lower income, older age, having lost a child or a spouse, or cancer as the cause of death (Kersting *et al.*, 2011). Smith and Ehlers (2020) found that of all loss characteristics such as mode of death and age, only child loss was a unique predictor of severe and enduring grief.

Prolonged grief arising from violent or traumatic events appears to differ from non-traumatic prolonged grief. Some studies have found that violent losses are more likely to generate distressing intrusive memories than non-violent deaths (Djelantik *et al.*, 2020). In a study of bereaved spouses, Kaltman and Bonanno (2003) found that violence of the loss, but not suddenness of the loss, was related to PTSD symptoms. Smith and Ehlers (2021) found that bereaved people meeting criteria for PGD, or PGD+PTSD, or PTSD-only, show different cognitive risk factors. Differences in loss-related cognitions, memory characteristics and coping strategies distinguished PTSD from PGD, as well as from PGD co-morbid with PTSD, pointing to distinct cognitive correlates of post-loss clinical problems. Memory characteristics (such as being reminded of the loss for no apparent reason or struggling to access positive memories without the deceased), negative grief appraisals (such as believing one could never be strong again without the deceased), and perceived social disconnection were cognitive predictors most prominent in the co-morbid PGD+PTSD class compared with the PTSD-only class, suggesting that cognitive processes linked to severe grief reactions may be different from traumatic grief responses.

Another point of interest relates to how to define ‘traumatic loss’. Does losing a loved one in extraordinary circumstances such as the COVID-19 pandemic constitute a traumatic loss? Such theoretical discussions invite scholarly debate and have vital implications for clinical practice.

### **Social and inter-personal considerations**

Neimeyer and colleagues (2000) posit that the experience of grief is an active process that is personal and inherently social in nature. The social context (Bonanno and Kaltman, 1999; Walter, 1999), cultural factors (Klass and Chow, 2011), and human values (Maercker *et al.*, 2009) can influence how an individual psychologically and emotionally processes loss. Dyregrov *et al.* (2003) highlighted that psychosocial problems, such as self-isolation, are associated with post-loss mental health problems. In a study of cognitive predictors of grief trajectories over 18 months, Smith and Ehlers (2020) found that impaired social connectedness was an important predictor for those who met criteria for PGD co-morbid with PTSD.

### **Disenfranchisement**

Doka (2002) introduced the concept of ‘disenfranchised grief’ when grief is not openly acknowledged, socially validated or publicly observed in a usual and traditional manner such as with religious rituals, funerals and community-based activities. This concept can be relevant to bereavement complications in circumstances such as civil conflict, where death may occur in controversial circumstances and grief may not be openly acknowledged or socially accepted. This concept is also relevant to the recent COVID-19 pandemic, during which many people died in extraordinary circumstances. People died in hospital wards isolated from family members, attendance at funerals was restricted and for some, there was an element of stigma attached to death by a new frightening disease.

### **Dependency**

The type of relationship with the deceased has been found to be an important factor associated with chronic grief. Pre-loss interpersonal dependency as well as dependency on the deceased have been found to be associated with chronic grief (Bonanno *et al.*, 2002). Smith and Ehlers (2020) found that those with higher levels of adaptation to loss reported healthier dependency styles compared with those who struggled to adapt to their loss.

### **Sources of support**

In a survey of 678 bereaved people Aoun *et al.* (2018) identified that the most frequently used sources of support were informal, such as family, friends and funeral providers whilst professional resources, such as social workers, psychologists and psychiatrists were the least used. Aoun and colleagues (2018) reported that professional sources had the highest proportions of perceived unhelpfulness. In a study with families of homicide victims, Bottomly and colleagues (2017) highlight the limits of psychotherapy or peer support groups to provide sufficient aid in the wake of traumatic loss. Bottomley *et al.* (2017) found that the most helpful forms of social support were practical, physical assistance and subsequently recommended clinicians to adopt a public health focus facilitating access to specific services (e.g. child care, financial assistance).

### **Self-appraisal**

In keeping with our clinical experiences, Smith *et al.* (2020) found that appraisals about social disconnection predicted the severity of symptoms of prolonged grief disorder and may act as a barrier to utilising social support. Patients with strong negative appraisals about the self, the world and others after loss are more likely to disengage from social interaction. Appraisals such as: ‘I have changed’, ‘Other people will regard me differently’, ‘I am permanently changed and no one will be able to relate to me’, can lead to increased social avoidance, which in turn, can reinforce such beliefs as well as creating more time for unhelpful periods of rumination. The more prolonged these periods of isolation are, the more entrenched beliefs become about a changed sense of self. One mother who lost two children in separate tragedies became convinced that she was completely changed and now ‘abnormal’, believing that other mothers would instantly view her in this way.

### **Societal and cultural factors**

Societal and cultural factors are relevant to grief experiences. One question that emerges is whether it is necessary to assess needs and provide interventions at individual and community levels to deal with grief recovery, especially after large scale trauma with multiple deaths. Such large scale traumatic events generally result in higher levels of PGD among the bereaved (Li *et al.*, 2015; Liang *et al.*, 2019 Shear *et al.*, 2011). Understanding traumatic grief in such circumstances requires attention to societal

and cultural norms, including rituals and ceremonies, which may influence grieving processes and may vary across cultures and religious groups. One of the research objectives after the Omagh bombing was to discover possible effects on community cohesion and the results were encouraging, with 40.6% reporting that they felt ‘more a part of the community’ since the bombing (Duffy *et al.*, 2013). The Omagh studies were used to inform interventions at individual, community and societal levels, targeting social connectivity for the bereaved and other victims.

### (3) Psychological therapies for CG and TG?

#### ***Non-CBT informed models of grief***

Early models of grief derived from Freud’s theories (1963) proposed that grief was the necessary process of breaking attachment to a love object, ‘the cost of commitment’ (Parkes, 1985). Subsequent models were derived from Kubler-Ross’s (1969) observations of people living with a terminal illness proposing that the bereaved had to adjust to the loss via stages of shock, denial, bargaining, depression and finally acceptance. Bowlby and Parkes (1970) produced a stages theory of grief derived from attachment theory, suggesting phases of: numbness, yearning, disorganisation/despair and reorganisation. Later, Bowlby (1980) described these stages as shock, protest, despair, detachment, and personality reorganization. These models tended to view the person grieving as passive and the grief process as linear, sequential, and time limited. The goal for therapists adopting these frameworks was to facilitate the bereaved client to relinquish attachment to the deceased person and phrases such as ‘moving on’ and ‘letting go’ were part of the grief therapy nomenclature. Pathological grief was considered to be associated with an ambivalent relationship to the deceased.

Later theorists challenged the assumption that ‘detachment from’ the deceased is the desired outcome of grieving. Worden (1991) proposed four tasks of mourning: accepting the reality of the loss, working through the pain, adjusting to the environment, and ‘moving with’ the grief. The concept of continuing bonds, and looking at ways of ‘moving with’, rather than ‘moving on’ or relinquishing attachments from the relationship with the deceased, has important clinical implications (Klass *et al.*, 1996; Neimeyer, 2001). Grieving, based on this conceptualisation, involves reconstructing personal beliefs that have been challenged by the loss, and finding a means of retaining memories of the deceased, without focusing on how the person died and the distress associated with the death.

Stroebe and Schut’s (1999) dual process theory of bereavement proposes that the bereaved oscillate between loss-orientated processes (such as experiencing loss related intrusions, continuing bonds with the deceased, avoiding restoration of one’s life) and restoration-orientated processes (such as attending to life changes, distracting oneself from grief and forming new roles and relationships). Stroebe and colleagues (2005) submit that different coping styles are employed and effective for bereaved people according to their attachment style. Thus, they suggest that for some bereaved individuals, it will be more appropriate to work toward retaining ties, and for others to work toward loosening ties with the deceased person.

#### ***Evidence for non-CBT models of grief***

There is little evidence of benefits from ‘grief work’ in general to come to terms with the death of a loved one. A meta-analysis of 35 grief therapy studies, undertaken before many of the current complex grief treatments were developed, found that treatments had a limited and small effect relative to psychotherapy for other conditions (Litterer *et al.*, 1999). Subsequent studies of grief interventions for grief reactions have reported low to medium effects (Currier and Holland, 2008; Wittouck *et al.*, 2011). A review by Jordan and Neimeyer (2003) concluded that generic grief interventions for bereaved populations are not necessary and ineffective. Currier and Holland’s (2008) meta-analysis of grief therapy studies found that interventions

had a small effect at post-treatment but no statistically significant benefit compared with control groups at follow-up. However, interventions were more likely to be successful if they exclusively targeted grievers displaying marked difficulties adapting to loss. Whilst some of these findings have been challenged (Larson and Hoyt, 2007), a consensus seems to be emerging that psychological therapy is more appropriate only for those who experience more severe and enduring grief reactions.

### **CBT informed models of grief and PGD**

A number of models derived from cognitive and behavioural theories have been applied to grief and complicated grief reactions. Malkinson and Ellis (2000) developed a rational emotive behaviour therapy (REBT) model for grief-related conditions. The approach identifies 'irrational beliefs' and teaches clients to practise more adaptive thinking about their loss whilst maintaining bonds with the deceased. Other CBT based complicated grief treatments are derived from treatments for disorders, such as depression and PTSD. Behavioural activation (BA) has been adapted for complicated grief (Papa *et al.*, 2013a) from the BA protocol for depression and includes completing a functional assessment to identify the links between symptoms and behaviours. This approach advocates self-monitoring via activity records, identifying avoidant behaviours related to maladaptive 'grief loops' and implementing alternative behavioural responses (Papa *et al.*, 2013b). Treatment components from CBT models for PTSD have been applied with good effect to complicated grief; for example, imaginal exposure was used successfully to enable veterans to engage with traumatic grief memories, and to learn that they were able to tolerate associated distressing emotions (Steenkamp *et al.*, 2011). Boelen and colleagues (2006) developed a CBT-based treatment for complicated grief, which combines exposure and cognitive restructuring components, similar to the core elements of the cognitive model for PTSD (Ehlers and Clark, 2000). Other models for complicated grief have been developed from different therapeutic modalities. Shear and colleagues (2005) have designed a manualised complicated grief therapy (CGT) integrating components of cognitive behavioural therapy for PTSD with elements of interpersonal psychotherapy for depression.

### **Evidence for CBT models of PGD**

A Cochrane protocol for a systematic review of CBT therapies for PGD has been published and will provide a more in-depth analysis of the current evidence base for CBT-based therapies for PGD and bereavement-related PTSD and MDD (Roulston *et al.*, 2018). Within the limited scope of this paper, we can state that the evidence base for CBT-based models is developing and encouraging. For example, Boelen *et al.* (2007) compared two CBT interventions (exposure therapy and cognitive restructuring) with supportive counselling and found that both CBT interventions were more effective than supportive counselling. In one meta-analysis of psychological therapy randomised controlled trials (RCTs) for adults with PGD, Wittouck *et al.* (2011) concluded that cognitive behavioural grief interventions were more effective than control conditions (supportive or other non-specific therapy, or waitlist).

Several RCTs that compared interventions comprised of CBT components with wait list have reported significant between-group differences in PGD symptoms post-treatment (Barbosa *et al.*, 2014; Eisma *et al.*, 2015; Papa *et al.*, 2013b; Rosner *et al.*, 2015). However, two items of concern emerge from these studies. First, end-of-treatment gains diminish at follow-up and secondly, non-completer rates are high. For example, Eisma *et al.* (2015) reported that a third dropped out from their trial exposure group and 59% did not complete therapy in the BA treatment arm of the study. Similar high non-completer rates were reported in a trial by Shear *et al.* (2016) in a study combining medication and psychological treatments. Twenty-six percent non-completers were reported in the psychological therapy arm (CGT group) and overall a 37.5% loss was reported

for the 6-month follow-up data point. Clearly it is undesirable that substantial proportions of participants do not complete therapy.

#### **(4) Can cognitive therapy for PTSD help with these conditions, or are different techniques and skills required?**

##### ***PTSD vs PGD***

To answer this question, it is important to be aware of the symptoms where PTSD and PGD overlap and where these disorders fundamentally differ. Common characteristics include: a sense of being stunned or shocked (by the trauma in PTSD and by loss in PGD), emotional numbing, intrusive memories and thoughts, avoidance of reminders, survivor's guilt, feeling detached from others, and intense emotions with significant functional impairments (Rando, 1993). A number of researchers have reported important differences between PGD and PTSD (Barnes *et al.*, 2012; Shear *et al.*, 2005). The primary emotions in PTSD are usually fear, anger, guilt or shame depending on the dominant appraisals, whereas in PGD the primary emotional response is usually intense sadness and yearning. Intrusions are common to both disorders, but in PTSD, are associated with the traumatic event and involve a sense of external threat or threat to the sense of self, whilst in PGD intrusions concern the deceased and predominantly involve a sense of loss. In PTSD individuals avoid reminders linked to the traumatic event, whereas in PGD, avoidance is linked to reminders of the reality or permanence of the loss. In PTSD, sensory cues such as sounds, colours or smells that match the past trauma, trigger intrusive memories (Ehlers and Clark, 2000). In PGD, a wide range of reminders of the deceased are commonly present, rather than being limited to the circumstances of the loved one's death. It is important to differentiate between triggers for distressing traumatic intrusions of how the person died and triggers that induce loss-related memories in order to apply the most appropriate therapy techniques. As an example, the stimulus discrimination technique derived from CT-PTSD is effective in discriminating between the trauma *then*, and triggers in the present *now* that bring to mind the traumatic memory, whereas the technique of 'postponing and containing remembering periods', commonly used in CBT for depression, can be helpful to apply to loss-related memories associated with long periods of rumination about life without the deceased.

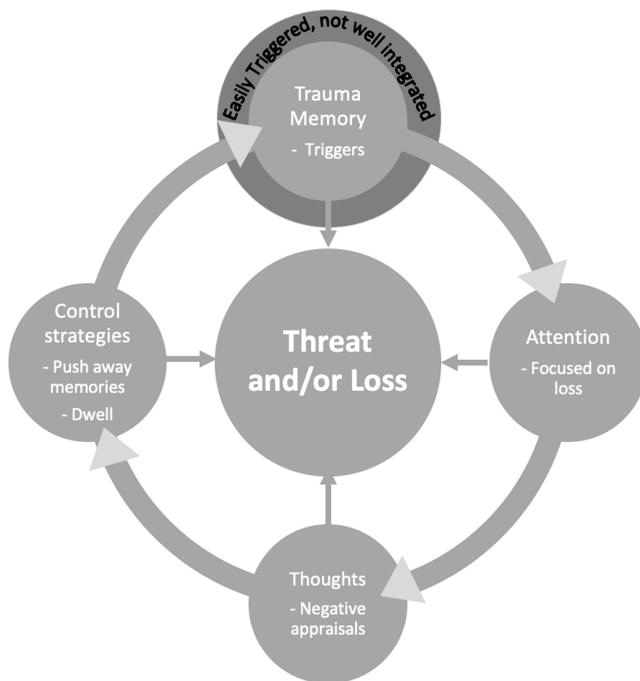
Some researchers have reported that the hyperarousal and exaggerated reactivity common in PTSD is not typically reported with complex grief reactions (Jordan and Litz, 2014). However, in our clinical experience, PTSD symptoms, such as hyper-vigilance, can be present in PGD, especially amongst parents who lose a child in sudden traumatic circumstances (either accidental or violent traumas). In such cases, bereaved parents can become hyper-vigilant in relation to protecting their surviving children. It is important to discover the specific appraisals linked with these behaviours which usually relate to the theme of over-generalised and exaggerated threat. Techniques, such as behavioural experiments, used in CT-PTSD to test and then update appraisals linked to an over-generalised sense of danger can then be applied.

##### ***Over-arching cognitive theme and maintenance of PGD***

One of the important advances in psychological therapy in recent times has been the development of disorder-specific cognitive models to conceptualise a patient's condition (Clark, 1999). At the core of these models is a central cognitive theme linked to the particular disorder, which helps to guide therapy by focusing on beliefs and behaviours that relate to the central theme. As an example, Ehlers and Clark (2000) discovered that the central theme in PTSD is a sense of serious current threat, maintained by a disjointed trauma memory, unhelpful behaviours and excessively negative appraisals. Ehlers (2006) posed the question: is there a similar over-arching cognitive theme relating to PGD or are there separate themes for separation distress and traumatic distress? In this respect, like PTSD, a sense of threat may be present with PGD

but relates to being unable to face a life without the deceased. Thus, the world and the future after loss may seem threatening. However, the core theme in PGD is likely to be one of loss and in this respect attachment theory may be helpful in understanding the concept of yearning that is central to PGD (Bowlby and Parkes, 1970). The nature of the relationship to the deceased, for example parenthood, can help explain how certain types of bereavement, particularly child loss, have been found to be a strong predictor of chronic, severe and enduring grief (Meert *et al.*, 2011; Sveen *et al.*, 2018; Smith and Ehlers, 2020). However, the type of relationship as a single variable does not adequately explain why some bereaved relatives develop PGD and others do not. In our clinical experiences with many bereaved victims including large scale tragedies such as the Omagh bombing, the relationship to the deceased did not adequately differentiate between those who were able to adapt to their loss and those who developed prolonged grief reactions.

We apply the cognitive model of PTSD (Ehlers and Clark, 2000) to conceptualise maintenance factors and therapy targets for PGD. The CT-PTSD model emphasises the important maintenance role of negative appraisals, unhelpful coping strategies, and characteristics of the trauma memory. We have found in our clinical practice with PGD that many of these strategies keep the patient's attention focused on loss, and so we take this into account in the following simplified cycle (Fig. 1) that we share with patients.



**Figure 1.** A cycle of prolonged grief disorder for clinical practice.

## Memory and appraisals

### *Activation of and attention to loss memories*

In the cycle of prolonged grief disorder depicted in Fig. 1, the traumatic memory of loss is not well integrated with other autobiographical memories. It is easily activated by reminders of the loved one in the patient's environment, giving rise to a strong sense of loss. Trauma triggers which bring to mind the memory of how the patient's loved one died may be relevant for some patients, engendering a sense of threat. The triggers keep the memory active in the patient's mind. Negative appraisals about the memory and the meaning of the loss maintain the patient's sense of

loss and for some, threat. In response, the patient may engage in behaviours to feel less distressed. These behaviours, such as frequent visits to their loved one's grave or reducing contact with friends, keep their attention on loss and maintain their distress. If they do engage in new activities, they typically focus on the absence of their loved one, maintaining their focus on loss. Or they may engage in safety-seeking behaviours to reduce the sense of danger, such as checking the safety of surviving children, which keeps their focus on threat. The patient may ruminate about why their loved one died or make efforts to push memories of their death out of their mind, which keep such thoughts in mind for longer. These strategies focus the patient on loss as well as, for some patients, on threat, and prevent the traumatic loss memory from being better integrated with autobiographical memories. This makes it difficult to access memories from before the loss and difficult to move forward with the loss. Thus, treatment will help the patient to shift their focus and work with the thoughts, strategies and the memory which are keeping their grief in place so that they may move forward with loss rather than feeling stuck in it.

### **Appraisals and coping strategies**

A number of studies support the role of negative appraisals in the maintenance of prolonged grief (Boelen *et al.*, 2006; Bonanno *et al.*, 2002). Smith and Ehlers (2021) found that loss-related memory characteristics, such as struggling to remember positive times without the deceased, and negative grief appraisals, such as believing that letting go of grief would betray the person who died, predicted grief symptoms in the first 6 months after bereavement. Negative appraisals and unhelpful coping strategies, such as grief rumination or proximity seeking, predicted lower levels of adaptation to loss. Some studies have reported that appraisals of injustice such as a pre-occupation with unfairness of the death or the deceased's lost opportunities in life, are associated with prolonged grief responses (Rees *et al.*, 2017; Tay *et al.*, 2015). Smith and colleagues (2020) found that particular appraisals about social disconnection (negative interpretation of others' reactions to grief expression, an alteration of the social self, and perceptions of being safer in solitude) predicted the severity of symptoms of prolonged grief disorder. Such appraisals lead to specific strategies which inhibit the loss memory from being more fully integrated into the autobiographical memory base. Control strategies, such as rumination and avoidance, are common and will be discussed in more detail by the authors in a clinical practice paper on traumatic bereavement (Wild *et al.*, *in press*).

### **Elaboration of loss memories as a treatment approach**

Similar to TF-CT for PTSD (Ehlers and Clark, 2000), a key goal of therapy for prolonged grief is to elaborate the trauma memory associated with the death (see Smith and Ehlers, 2020a, 2020b). Thus, the traumatic loss becomes integrated with information pre- and post-traumatic death, and memories of the deceased or the death are contextualised and connected to replace intrusions with intentionally retrievable memories (see Smith *et al.*, 2022). Creating a sense of continuity with the meaning of the loved one is a core component of treatment that seems to help the patient to move forward with their grief, and is discussed in detail in our clinical paper on how to treat PTSD arising from traumatic bereavement (Wild *et al.*, *in press*). The therapist and patient work together to spot the meaning of what the patient has lost and aim to bring that meaning back into their lives whilst recognising what they have not lost. In doing so, the therapy helps patients to create a new relationship to loss. It is no longer about letting go or saying good-bye to their loved one. Rather, it is about how to take their loved one forward with them in an abstract yet meaningful way. One father whose son was killed, missed his son's gentle manner. As a means of carrying his son's memory with him, he intentionally became more self-aware of how he interacted with his pupils as a teacher. He quite purposively showed more empathy and interest in their well-being and would smile as he could hear his son say 'well done Dad'. A mother said that when her daughter was well, she was incredibly supportive. She believed this quality best represented her daughter. She set

up a website for survivors of suicide to exchange support. In creating a supportive environment for others, she carried the meaning of her daughter forwards.

## Conclusions

The cognitive model for PTSD has been a helpful starting point for conceptualising and treating prolonged, complicated and traumatic grief reactions and indeed our previous trials for PTSD have included numerous patients who were traumatically bereaved (Duffy *et al.*, 2013; Ehlers *et al.*, 2014; Ehlers *et al.*, 2022). In this paper we have answered questions posed by workshop participants and considered historical and theoretical concepts relating to PGD. In doing so, we have highlighted components of a CBT model of PGD. We have provided a theoretical and empirical rationale for applying the cognitive model of PTSD (Ehlers and Clark, 2000) to guide our conceptualisation of maintaining factors relevant to prolonged grief disorder. We have focused on, for example: understanding the importance of specific triggers (i.e. loss-related *vs* trauma memory triggers); recognising the importance of appraisals and behaviours (e.g. social withdrawal), and cognitive processes (e.g. rumination, attention) that maintain traumatic grief symptoms and which appear to disrupt the integration of the loss memory with the patient's broader autobiographical memories.

We have presented a clinical cycle used with our clients to help them make sense of their post-loss distress and to illustrate what treatment will target. One of the core aims of CT-PTSD, as applied to traumatic grief, is to help the patient update the relationship to their loss memory, such that they can move forward with the meaning of their loved one in their lives. A more detailed discussion on how to treat PTSD and co-morbid grief arising from traumatic bereavement can be found in our clinical practice paper on moving forward with the loss of a loved one (Wild *et al.*, *in press*).

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ADDENDUM

# Living with loss: a cognitive approach to prolonged grief disorder – incorporating complicated, enduring and traumatic grief – ADDENDUM

Michael Duffy and Jennifer Wild

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## Abstract

The subject of prolonged, complicated and traumatic grief has become more topical as a consequence of the Covid-19 pandemic. CBT practitioners have been asked to provide effective therapeutic responses for clients with enduring distressing grief reactions. These enduring grief conditions have now been categorised as Prolonged Grief Disorder in the two main mental health classification systems: in the ICD -11 in November 2020 and as a revision to the DSM-5 in 2021. In this paper we draw on our research and clinical experience in applying cognitive therapy for PTSD (CT-PTSD) to traumatic bereavement to derive lessons for the treatment of prolonged grief. During the pandemic the authors of this paper delivered several workshops on prolonged grief disorder (PGD) during which clinicians raised several thought-provoking questions; how do we differentiate between normal and abnormal or pathological grief; how do we categorise pathological grief; how effective are existing therapies and is there a role for CBT; and how do our experiences with Cognitive Therapy for PTSD help with conceptualisation and treatment of PGD. The purpose of this paper is to answer these important questions and in so doing, consider the historical and theoretical concepts relating to complex and traumatic grief, factors that differentiate normal grief from abnormal grief, maintenance factors for PGD and implications for CBT treatments.

**Keywords:** cognitive therapy; grief; trauma; cognitive behavioural therapy

This article was published in *Behavioural and Cognitive Psychotherapy* with the abstract and keywords missing.

Cambridge University Press regrets the omission of the abstract and keywords in the above article.

The missing abstract and keywords are provided above.

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# From loss to disorder: The influence of maladaptive coping on prolonged grief

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Confirmatory factor analyses  
Exploratory factor analyses

## ABSTRACT

Research indicates that post-bereavement coping strategies can be adaptive or maladaptive. Understanding which strategies lead to poorer outcomes is an important clinical and theoretical question with the potential to guide intervention.

The Oxford Grief – Coping Strategies scale was developed from interviews with bereaved people with and without prolonged grief disorder (PGD) to assess the frequency of maladaptive cognitive and behavioural strategies after bereavement. Factorial and psychometric validity were assessed using exploratory and confirmatory factor analysis ( $N = 676$ ). A three-wave cross-lagged panel model ( $N = 275$ ) was used to assess the predictive validity of the tool in explaining symptoms of PGD.

Results supported a four-factor solution (Avoidance, Proximity Seeking, Loss Rumination, Injustice Rumination) with good psychometric properties. The OG-CS predicted prospective symptoms of PGD in the short-term (6–12 months) and long term (12–18 months), controlling for baseline symptoms and autocorrelations. Subscale analyses demonstrated that the use of coping strategies predicted ICD-11 PGD in both the short-term and the long-term. However, avoidance was not predictive of outcomes early in the grieving process. At 6–12 months, avoidance predicted PGD at 12–18 months.

## 1. Introduction

Epidemiological research identifies loss of a loved one as one of the most common lifetime stressful experiences (Kessler et al., 2017). Following such an event, many individuals will adapt. However, approximately up to 10%, will go on to develop prolonged grief disorder (PGD) a condition associated with significant individual and societal cost, making the understanding of the onset and maintenance of PGD a critical public health issue (Lundorff et al., 2017).

Cognitive behavioural models of PGD suggest that specific coping strategies, such as avoidance or rumination, play a key role in maintaining symptoms (see Eisma and Stroebe, 2021 for a review). These strategies, often understandably employed post-bereavement, may hinder the processing of the loss and indeed research has established a link between post-loss coping strategies and adverse outcomes after loss (Boelen and Eisma, 2015; Eisma et al., 2015; Morina, 2011; Nam, 2016; Shear et al., 2007; Smith and Ehlers, 2020, 2021b; Stroebe et al., 2007). Theoretical

models propose that such coping strategies are counterproductive and impede the integration of the memory of the loss into autobiographical memory, reinforcing negative appraisals formed after loss (Boelen, van den Hout, et al., 2006; Duffy and Wild, 2023; Ehlers and Clark, 2000). However, to our knowledge only two studies have directly explored the relationship between these cognitive behavioural factors and PGD symptoms longitudinally after a bereavement. Smith and Ehlers (2020) identified four trajectories of grief, three of which demonstrated a link between negative appraisals and memory characteristics in predicting unhelpful coping strategies. This pattern of results was not found in a fast adaptation group, who made less use of unhelpful coping strategies, perhaps explaining their relatively quick reduction in grief symptoms. Another study (Smith and Ehlers, 2021a) demonstrated that early memory characteristics and negative appraisals predict later unhelpful coping strategies, which fully mediated their impact on PGD symptoms at 12–18 months post-loss. These findings underscore the pivotal role of post-loss coping strategies in the development and maintenance of

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bereavement-related mental health problems. However, an aspect that was not controlled for in Smith and Ehlers (2021a), due to model complexity, was the influence of autocorrelations, leaving open the question whether unhelpful coping utilised in the early months of loss can predict later symptoms of PGD after controlling for baseline symptoms.

The coping strategies measured in these studies (Smith and Ehlers, 2020, 2021a) were derived through a review of the literature (Boelen et al., 2003; Eisma et al., 2014; Field and Filanosky, 2009; Field et al., 2003; Mancini et al., 2009) and from interviews with bereaved people with and without PGD (Smith, 2018). Unlike existing scales that have tended to measure one category of coping (Baker et al., 2016; Boelen and van den Bout, 2010; Eisma and Nguyen, 2023; Eisma et al., 2014) the Oxford Grief – Coping Strategies scale (OG-CS), measures a broad range of strategies (e.g. avoidance behaviours, thought suppression, proximity seeking behaviours, and rumination about a range of topics). It was designed to be a concise, yet comprehensive, tool for use in clinical settings to plan and guide treatment. The scale's use in previous studies was to investigate its role in combination with other proposed cognitive behavioural mechanisms of PGD. In this paper we present its psychometric validity and take a closer look at the types of coping strategies relevant to severe and enduring grief.

Previous research, has demonstrated that each type of coping strategy measured in the OG-CS is linked to the development and/or maintenance of PGD. Boelen and Eisma (2015) discovered that in the first year of loss, using anxious avoidant strategies (i.e., avoiding confronting the loss's reality) predicted PGD after one year. Similarly, in a study of the bereaved family members of those killed in the Utøya terrorist attack, researchers found that avoidance of reminders of the loss predicted a high and chronic grief trajectory up to 40 months later (Kristensen et al., 2020). Using the Utrecht Grief Rumination Scale (UGRS) to identify adaptive and maladaptive rumination, Eisma et al. (2015) demonstrated that ruminating on the perceived injustice of the loss predicted additional variance in PGD symptoms after controlling for baseline symptoms. Subsequent research linked counterfactual thinking (i.e., dwelling on what might have prevented the death) to concurrent and longitudinal PGD and depression symptoms (Eisma et al., 2021). Rumination as a cognitive coping strategy has also been proposed as a key mechanism of change in treatment studies (Glickman et al., 2017).

Proximity seeking (i.e. aiming to restore a connection with the deceased) reflects a process also known as continuing bonds (Field et al., 2003). Longitudinal studies historically linked continuing bonds to increased grief symptoms (Boelen, Stroebe, et al., 2006; Field et al., 2003). Recent research by Eisma and Nguyen (2023) found concurrent associations of proximity seeking with prolonged grief (PG), but so far no longitudinal investigations have investigated the potential role of proximity seeking in the onset and maintenance of PGD.

Since unhelpful coping strategies are central to theoretical models of PGD it is essential to understand how and when these strategies influence the development and persistence of the disorder. Furthermore, it is especially important to identify specific maladaptive strategies given that avoidance, proximity seeking and rumination are commonplace in the acute phase of grief and can be considered part of a normative grieving process (Eisma et al., 2015; Shear et al., 2007; Stroebe and Schut, 1999). Careful characterisation of the mechanisms of PGD have the potential to inform interventions aimed at alleviating distress after loss. Previous research has shown that PGD symptoms reduce when participants are guided through interventions to adopt more adaptive coping strategies. Using Prolonged Grief Treatment, formerly Complicated Grief Treatment, Shear and colleagues found that reductions in avoidant coping mediated reductions in grief symptoms and impairment (Lechner-Meichsner et al., 2022). A further randomised controlled trial using metacognitive therapy for grief (MCGT) directly targeted ruminative coping and found significant treatment effects on PGD symptoms and reductions in rumination (Wenn et al., 2019). These findings highlight the importance of thorough assessment of maladaptive coping as a means for guiding therapeutic work.

The present study utilises two samples of bereaved adults recruited from the community to test the factorial and psychometric properties of the Oxford Grief Coping Strategies Scale (OG-CS) using exploratory and confirmatory factor analyses. A separate three wave longitudinal sample assessed in the first 6 months of loss and then followed at 6 and 12 months later was used to test the predictive utility of the OG-CS in explaining symptoms of PGD over time. Cross-lagged panel analyses controlling for the effect of prior symptoms levels and concurrent associations was employed to elucidate longitudinal effects.

## 2. Methods

### 2.1. Participants

Psychometric validation utilized two separate samples (cross-sectional,  $N = 676$ ; and test-retest,  $N = 50$ ) of adults bereaved at least 6 months earlier. Longitudinal investigations involved a third separate sample ( $N = 275$ ) assessed within the first 6 months of their bereavement (baseline 0–6 months) and followed up in the short term (6–12 months) and long-term (12–16 months). All participants (recruited through bereavement charity mailing lists, social media advertisements, and keyword targeted advertising on the Google content network) were compensated for their time (£10 per survey). Participants were included if the deceased was a close loved one. Table 1 displays each sample's demographic data and loss characteristics. The test-retest sample completed measures 1 week apart.

### 2.2. Procedure

Questionnaire data were collected online (Qualtrics, Provo, UT) after providing informed consent in accordance with ethical approval given by the University of Oxford Medical Sciences Inter-Divisional Research Ethics Committee (MS-IDREC—C1–2015–230; MS-IDREC—C1–2015–231). Questionnaires tailored items to the user; participants selected a preferred name for the deceased, integrated into relevant items (e.g., 'I bring images of Maggie to mind'). In line with ethical guidelines, participants received a post-questionnaire email offering support and a chance to discuss any distressing aspects (Smith et al., 2018).

### 2.3. Measures

The OG-CS was designed to be a comprehensive assessment of unhelpful coping strategies after loss. Individual items and content domains were developed in collaboration with cognitive therapists

**Table 1**  
Sample demographics and loss characteristics

Variable	Sample		
	Cross-sectional ( $N = 676$ )	Test-retest ( $N = 50$ )	Longitudinal ( $N = 275$ )
Age M (SD)	49.22 (12.52)	51.46 (14.54)	46.43 (13.24)
Women (%)	81.5	84.0	78.5
Months since loss M (SD)	56.91 (79.79)	23.74 (48.44)	2.94 (2.01)
Violent loss (%)	19.5	26.0	9.1
Who died? (%)			
Partner	36.1	28.0	30.2
Child	21.0	22.0	8.7
Sibling	6.5	0.0	5.8
Parent	28.3	42.0	38.2
Another close relative or non-relative	8.2	8.0	17.1

Note: Violent loss defined as resulting from human (in)action (i.e. suicide, homicide, accident, unintentional overdose, medical negligence) versus illness.

experienced in the treatment of chronic grief reactions and through a review of the literature (Boelen et al., 2003; Eisma et al., 2014; Field and Filanosky, 2009; Field et al., 2003; Mancini et al., 2009). Some items from the English version of the UGRS measuring injustice rumination and loss rumination were adapted for use in the scale given their strong predictive utility in PGD (Eisma et al., 2015). Item selection involved evaluating mean scores, correlations with PGD symptoms, and removal of low-scoring items. Specialist therapists and bereaved representatives reviewed final items for content and face validity.

### 2.3.1. Cognitive measures

*The Oxford Grief Coping Strategies Scale (OG-CS)*. The OG-CS is a 23-item questionnaire assessing the frequency of loss-related coping strategies utilised in the past month on a 5-point scale (1 = *never*, 5 = *always*). The four content domains include avoidance (6 items, e.g. “I avoid places we went together”), proximity seeking (7 items, e.g. “I am still carrying out a routine as a way of caring for them”), loss rumination (7 items, e.g. “I dwell on moments that could have changed the outcome”), and injustice rumination (3 items, “I think over and over about how it could be that this happened”). Internal consistency was acceptable in the cross-sectional sample ( $N = 676$ ,  $\omega = 0.79$ ) and good in the longitudinal sample ( $N = 275$ ,  $\omega = 0.87$ ).

### 2.3.2. Symptom measures

**2.3.2.1. Prolonged grief disorder inventory.** The PG-13; Prigerson and Maciejewski (2008) assessed symptoms of separation distress, cognitive, emotional and behavioural problems and their intensity and duration following a bereavement. We used an extended version that covered the 10 symptoms of DSM-5-TR diagnostic criteria (see Smith et al., 2022 for a fuller description). A probable PGD diagnosis required reporting at least one item of separation distress and a minimum of three daily cognitive, emotional, or behavioral disturbances from a possible eight symptoms, significantly impairing functioning in one or more life areas (social, occupational, domestic responsibilities) (Prigerson et al., 2009). For the ICD-11 criteria symptoms (Killikelly and Maercker, 2018) we included item 14 from the PCL-5 “trouble experiencing positive feelings” rescaled to match the PG-13 items.

**2.3.2.2. Posttraumatic stress disorder checklist for DSM-5 (PCL-5)** (Weathers et al., 2013). Consisting of four scales corresponding to DSM-5 PTSD symptom clusters, the PCL-5 includes items to assess re-experiencing, avoidance, negative alterations, and hyper-arousal symptoms. Twenty self-report items are scored 0–4, with a recommended cut-off score of 33 for a probable PTSD diagnosis. Participants referred to the death of their significant other in completing the PCL.

**2.3.2.3. Patient health questionnaire (PHQ-9)** (Kroencke et al., 2001). The PHQ-9 is a nine item self-report measure of general depression and distress based on the criteria for major depressive disorder (DSM IV-TR, American Psychiatric Association, 2000). Participants rate the frequency of depressive symptoms over the past two weeks on a scale of 0 (not at all) to 3 (nearly every day) with total scores ranging from 0 to 27.

## 2.4. Data analysis

### 2.4.1. Statistical analyses

Two-stage factor analyses were performed, utilizing a 50% random split for exploratory factor analyses (EFA) to build the measurement model and the remaining half for cross-validation via confirmatory factor analyses (Osborne and Fitzpatrick, 2012). Geomin oblique rotation was employed due to expected correlations among scale factors (Muthén and Muthén, 2007). The weighted least squares mean and variance adjusted (WLSMV) estimation method was chosen, treating the

5-point questionnaire data as ordered categorical (Kaplan, 2008; Muthén and Muthén, 2007).

Conceptual interpretability guided model adequacy assessment. Criteria included a  $\chi^2$ :df ratio smaller than 3:1, a comparative fit index (CFI) of 0.90 or higher (acceptable) and 0.95 or higher (good), and a root mean square error of approximation (RMSEA) of 0.08 or lower (acceptable) and 0.06 (good) (Hu and Bentler, 1999). Parallel analyses generated scree plot results, eigenvalues greater than 1, and loadings > 0.35 determined factor membership. Cross-loading items were placed where most conceptually sensible. Modification indices over 30 were considered if conceptually interpretable (Brown, 2014). Lastly, a higher-order factor score was modelled to support future use of a sum score (Brown, 2014).

### 2.4.2. Psychometric validation

McDonald's Omega ( $\omega = (\sum \lambda_i)^2 / ((\sum \lambda_i)^2 + \sum \sigma_{ii})$ ) gauged composite reliability for WLSMV on the total scale and individual factors from EFA (Gadermann et al., 2012).

Criterion and convergent validity were assessed through correlations with psychopathology measures (PGD, PTSD, depression). Factorial convergent validity used the average variance extracted (AVE), (Fornell and Larcker, 1981), with a threshold of 0.50 or higher (Hair et al., 2011). Factorial discriminant validity was confirmed if AVE exceeded the highest squared inter-construct correlation (Henseler et al., 2015). A test re-test reliability correlation of >0.70 over 7 days indicated scale stability.

### 2.4.3. Structural equation modelling

**2.4.3.1. OG-CS.** Second-order autoregressive cross-lagged panel models in Mplus Version 8 (Muthén and Muthén, 2007) were used to assess the influence of coping strategies on PGD symptoms. Models utilised ICD-11 and DSM-5-TR criteria for PGD and assessed coping strategies' impact at baseline (0–6 months), short-term follow-up (6–12 months), and long-term follow-up (12–18 months). Autoregressive paths and correlated errors considered influences over time. Model constraints evaluated coping strategies' impact on symptoms over time (see Figs. 1 and 2). Model constraints evaluated coping strategies' impact on symptoms over time.

**2.4.3.2. Subscales of the OG-CS.** Cross-lagged analyses, using the sum scores of each subscale (Avoidance, Proximity Seeking, Loss Rumination, Injustice Rumination), assessed their influence on PGD symptoms over time. Covariance coverage met the convergence threshold (0.10), ranging from 0.67 to 0.99 for each variable pair. Full information maximum likelihood (FIML) handled minimal missing data at each time point (Baseline=99%, short-term FU = 75%, long-term FU= 78%) allowing all 275 observations to be used. Adequate fit criteria were  $\chi^2 p > 0.05$ , CFI > 0.90, TLI > 0.90, and RMSEA < 0.01 (Hu and Bentler, 1999; MacCallum et al., 1996; Wickrama et al., 2016).

## 3. Results

### 3.1. Exploratory factor analyses – coping strategies

All 23 coping strategy items underwent EFA using WLSMV estimation, indicating a four-factor structure with eigenvalues greater than 1. The scree plot supported a three or four-factor solution. The fit statistics for the three-factor solution had a good CFI at 0.97 and adequate RMSEA = 0.068 and  $\chi^2 = 463.06$  on  $df = 187$ ,  $\chi^2$ : $df = 2.48$ . Both four (CFI = 0.98, RMSEA = 0.056,  $\chi^2 = 336.15$  on  $df = 167$ ,  $\chi^2$ : $df = 2.01$ ) and five-factor solutions (CFI = 0.99, RMSEA = 0.041,  $\chi^2 = 230.49$  on  $df = 148$ ,  $\chi^2$ : $df = 1.56$ ) indicated good model fit. Considering eigenvalues, fit statistics, and weak loading items, a four-factor solution was deemed best. Factors were labeled 'avoidance,' 'proximity seeking,' 'loss

**Table 2**  
Factor analyses of the coping strategies scale.

Coping strategies items	Factors							
	1		2		3		4	
	EFA	CFA	EFA	CFA	EFA	CFA	EFA	CFA
1 I avoid watching television programmes that remind me of [-] or death in general.	.61	.62						
2 I avoid places we went together.	.84	.58						
3 I avoid eating foods and meals that we shared or [-] liked.	.79	.65						
4 I avoid making any changes to my life since [-] 's death.	.44	.71						
5 I make an effort to hold back my feelings.	.39	.51						
6 In the company of others I try hard to stop myself from breaking down.	.39	.67						
7 I feel compelled to surround myself with things that they liked.			.81	.69				
8 I bring images of [-] to mind.			.72	.59				
9 I am still carrying out a routine as a way of caring for them.			.55	.66				
10 I neglect other things because I spend a lot of time doing things for [-] (e.g. creating memorials, fundraising).			.42	.76				
11 I feel compelled to touch things that [-] touched (e.g. belongings, chairs, beds).			.79	.73				
12 I spend a lot of time thinking about joining [-] (in the afterlife).			.40	.78				
13 I dwell on the things we won't get to do together.			.45	.84				
14 I can't stop thinking about how afraid [-] was.					.58	.75		
15 I think over and over about how others failed to ease their suffering. <sup>a</sup>					.76	.77		
16 I think over and over about what I could have done to prevent [-]'s death/ease their suffering. <sup>a</sup>					.95	.86		
17 I go over and over how our last moments could have been more fulfilling.					.47	.70		
18 I dwell on moments that could have changed the outcome.					.81	.81		
19 I can't stop thinking about how much [-] suffered.					.68	.83		
20 I worry that [-] has not found peace (in the afterlife).					.59	.74		
21 I ask myself why I deserved this loss. <sup>a</sup>							.69	.71
22 I think about the unfairness of the loss. <sup>a</sup>							.78	.87
23 I think over and over about how it could be that this happened.							.49	.87
Correlations matrix of OG-CS factors								
Factor 1	-	-						
Factor 2	.49	.73	-	-				
Factor 3	.47	.63	.51	.65	-	-		
Factor 4	.44	.57	.52	.65	.64	.72	-	-
Higher order – Coping strategies subscale loadings								
	.80		.82		.82		.91	

Note: EFA (N = 348) CFA (N = 328). Factors labelled as follows: 1. Avoidance, 2. Proximity seeking, 3. Loss rumination, 4. Injustice rumination. All factor loadings significant to  $p < .05$ .

<sup>a</sup> Adapted Utrecht Grief Rumination Scale items (Eisma et al., 2014).

rumination,' and 'injustice rumination.' Two items cross-loaded above 0.35 on two factors but were placed based on the strongest loading. The coping strategies items and respective standardised factor loadings are presented in Table 2.

3.2. Confirmatory factor analyses – coping strategies

The CFA, assessing the chosen four-factor solution in a separate sample (N = 328), indicated good model fit (CFI = 0.96, RMSEA = 0.061,  $\chi^2 = 474.68$ ,  $df = 224$ ,  $\chi^2:df = 2.12$ ). A significant chi-square difference test favoured the four-factor model over three factors ( $\chi^2 = 683.03$ ,  $df = 6$ ,  $p < .001$ ). A higher-order factor solution, combining subscale factors into a single 'coping strategies' factor, showed good fit (CFI = 0.95, RMSEA = 0.06,  $\chi^2 = 502.19$ ,  $df = 226$ ,  $\chi^2:df = 2.22$ ). All four-factor loadings were statistically significant ( $p < .001$ ), supporting the use of overall and subscale factor scores. Table 2 summarises the standardised factor loadings for the four-factor and higher order factor solutions for the EFA and CFA, and the inter factor correlation matrix. Fitting the CFA model required no constraints on residual correlations.

3.3. Psychometric validation

Composite reliability and internal consistency for the total OG-CS and its subscales were good or excellent, except avoidance, which was acceptable. Test-retest reliability for the total scale was good and subscale reliability was either acceptable or good. Validity and reliability metrics are reported in Table 3. Correlations between the total score of the OG-CS, its subscales, and symptom measures of PGD, PTSD, and depression were all moderate or strong and significant, confirming criterion validity. The avoidance subscale did not meet the requirements

**Table 3**  
Psychometric validity of total coping strategies scale and latent factors.

Reliability/ Validity	Measure	Total scale	Factors			
			1	2	3	4
Composite	McDonald's Omega	.96	0.79	.88	.92	.85
Criterion	PGD <i>r</i>	.72***	.61***	.61***	.57***	.61***
	PTSD <i>r</i>	.74***	.67***	.56***	.64***	.58***
	Depression <i>r</i>	.61***	.59***	.50***	.48***	.48***
Test-retest	<i>r</i>	.86***	.79***	.76***	.89***	.82***
Convergent	AVE		.39	.53	.61	.67
Discriminate	Largest Inter-construct $r^2$		.53	.52	.52	.52

Note: Factors labelled as follows: 1. Avoidance, 2. Proximity seeking, 3. Loss rumination, 4. Injustice rumination. *r* = correlation. Test-retest reliability confirmed if  $r > 0.70$ . Convergent validity of factors confirmed if AVE > 0.5. AVE = Average variance extracted. Factorial discriminant validity confirmed if AVE > Largest inter-construct  $r^2$ .

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

for factorial convergent validity (AVE > 0.5) and discriminant validity (AVE > max  $r^2$ ). However, convergent and discriminant validity was confirmed for all other subscales.

3.4. Cross lagged models

All cross-lagged models demonstrated excellent fit (see Figures for details). Figs. 1 and 2 show parameter estimates for PGD ICD11 and DSM-5TR respectively. Unhelpful coping strategies significantly predicted symptoms of PGD (in both ICD11 and DSM-5TR

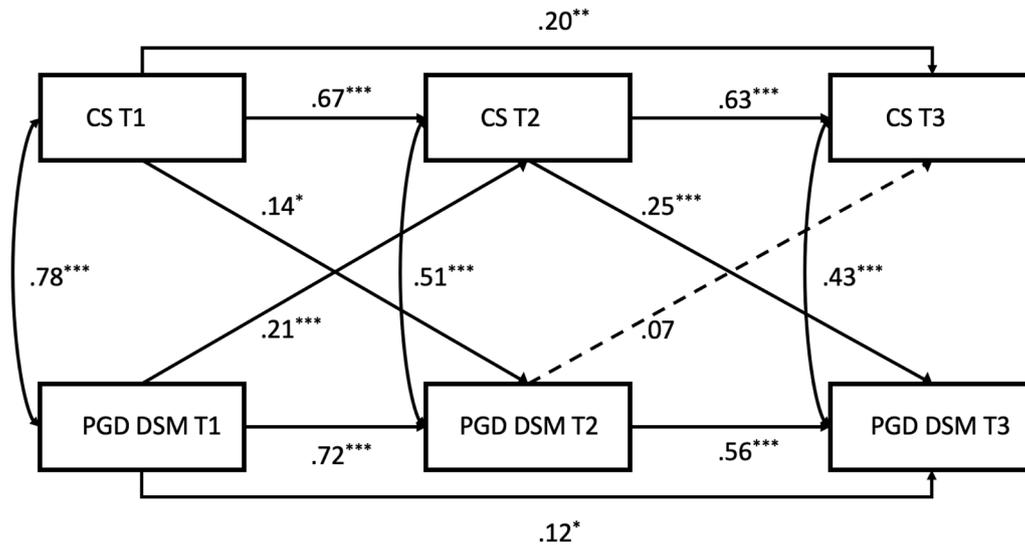


Fig. 1. PGD DSM,  $\chi^2 = 0.87$ ,  $df = 2$ ,  $p > .05$ , RMSEA=0.00 (0.00–0.09), CFI = 1.00 TLI = 1.00.

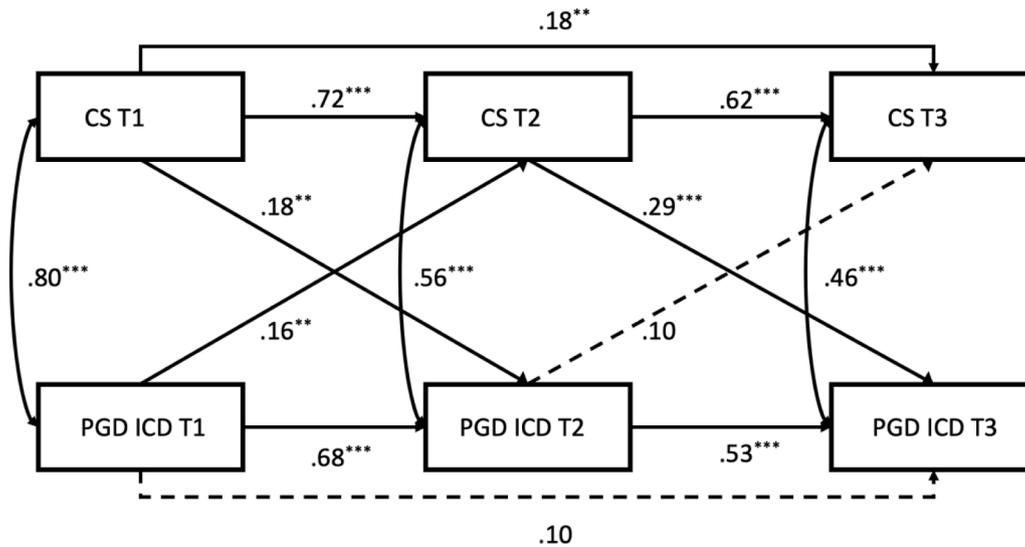


Fig. 2. PGD ICD-11  $\chi^2 = 0.38$ ,  $df = 2$ ,  $p > 0.05$ , RMSEA = 0.00 (0.00–0.07), CFI = 1.00, TLI=1.00.

conceptualisations) 6 and 12 months later after controlling for symptoms at the preceding time point. Although the influence of prior coping strategies on PGD appears to increase in magnitude over time this difference was not significant (PGD ICD-11,  $\beta = 0.08$ ,  $SE = 0.05$ ,  $p > 0.05$ ; PGD DSM,  $\beta = 0.07$ ,  $SE = 0.04$ ,  $p > 0.05$ ).

Looking at the reverse direction of prediction over time, baseline symptoms of PGD predicted coping strategies only in the short term (6–12 months).

### 3.5. Cross lagged models of the subscales of Oxford grief coping strategies scale

The structural models of the cross-lagged analyses for each OG-CS subscale are presented in the supplementary analyses. All models had an excellent fit to the data. The avoidance subscale did not predict ICD-11 or DSM-5-TR PGD symptoms in the short-term (6–12 months), only in the long-term (12–18 months) (PGD-ICD11,  $\beta = 0.12$ ,  $S.E. = 0.05$ ,  $p = .021$ ; PGD-DSM5,  $\beta = 0.12$ ,  $S.E. = 0.05$ ,  $p = .019$ ). The effect of PGD symptoms on avoidance strategies was significant in both the short-term and the long-term (Short-term PGD-ICD11,  $\beta = 0.26$ ,  $S.E. = 0.06$ ,  $p <$

$.001$ ; Long-term PGD-ICD11,  $\beta = 0.15$ ,  $S.E. = 0.06$ ,  $p = .014$ ; Short-term PGD-DSM5,  $\beta = 0.34$ ,  $S.E. = 0.06$ ,  $p < .001$ ; Long-term PGD-DSM5,  $\beta = 0.15$ ,  $S.E. = 0.06$ ,  $p = .019$ ).

Proximity seeking strategies predicted higher PGD symptoms both in the short term (PGD-ICD11,  $\beta = 0.11$ ,  $S.E. = 0.05$ ,  $p = .021$ , PGD-DSM5,  $\beta = 0.12$ ,  $S.E. = 0.05$ ,  $p < .001$ ) and the long term (PGD-ICD11,  $\beta = 0.22$ ,  $S.E. = 0.05$ ,  $p < .001$ , PGD-DSM5,  $\beta = 0.21$ ,  $S.E. = 0.05$ ,  $p < .001$ ). In the opposite direction, PGD symptoms also predicted higher proximity seeking strategies both in the short and long term (Short-term PGD-ICD11,  $\beta = 0.16$ ,  $S.E. = 0.06$ ,  $p = .006$ ; Long-term PGD-ICD11,  $\beta = 0.16$ ,  $S.E. = 0.06$ ,  $p = .004$ ; Short-term PGD-DSM5,  $\beta = 0.20$ ,  $S.E. = 0.06$ ,  $p < .001$ ; Long-term PGD-DSM5,  $\beta = 0.16$ ,  $S.E. = 0.06$ ,  $p = .007$ ).

Loss rumination significantly predicted PGD symptoms in the short term for the ICD-11 criteria ( $\beta = 0.10$ ,  $S.E. = 0.05$ ,  $p = .042$ ) and at trend level for DSM-5-TR ( $\beta = 0.08$ ,  $S.E. = 0.04$ ,  $p = .068$ ) and for both conceptualisations in the long term (PGD-ICD11,  $\beta = 0.15$ ,  $S.E. = 0.05$ ,  $p = .002$ ; PGD-DSM5,  $\beta = 0.13$ ,  $S.E. = 0.05$ ,  $p = .003$ ). PGD symptoms only predicted higher loss rumination in the short term (PGD-ICD11,  $\beta = 0.19$ ,  $S.E. = 0.05$ ,  $p = .001$ ; PGD-DSM5,  $\beta = 0.20$ ,  $S.E. = 0.05$ ,  $p < .001$ ) but not the long-term.

The same pattern was observed for injustice rumination in that it predicted PGD symptoms in the short term for the ICD-11 criteria ( $\beta = 0.14$ , S.E. = 0.05,  $p = .006$ ) and at trend level for DSM-5-TR ( $\beta = 0.09$ , S.E. = 0.05,  $p = .062$ ) and for both conceptualisations in the long term (PGD-ICD11,  $\beta = 0.17$ , S.E. = 0.05,  $p = .001$ ; PGD-DSM5,  $\beta = 0.15$ , S.E. = 0.05,  $p = .002$ ). In the opposite direction, PGD symptoms only predicted higher injustice rumination in the short-term (PGD-ICD11,  $\beta = 0.19$ , S.E. = 0.06,  $p = .001$ ; PGD-DSM5,  $\beta = 0.18$ , S.E. = 0.05,  $p = .001$ ) but not the long-term.

#### 4. Discussion

The OG-CS was found to have four empirically supported factors (i.e. Avoidance, Proximity Seeking, Loss rumination, Injustice rumination). Each factor demonstrated good or excellent internal consistency, test-retest reliability, and discriminant validity. Convergent validity was acceptable for all factors, except Avoidance. This suggests that the items chosen for the avoidance subscale account for less variance than the total error variance for the factor. However, it has been suggested that if Omega, a measure of composite reliability, is higher than 0.6, in this case 0.79, then the convergent validity of the construct can still be assumed (Fornell and Larcker, 1981). In line with previous research we found that items relating to loss rumination (i.e. dwelling on the circumstances of the death and its outcome) and injustice rumination (i.e. dwelling on how the loss violates rules of fairness) loaded on to separate factors (Eisma et al., 2014).

Cross-lagged analyses indicate that the OG-CS total scale significantly predicts PGD symptoms in both the short term (6–12 months) and long term (12–18 months), after controlling for associations at concurrent and preceding time points. These findings demonstrate that the coping strategies measured in the OG-CS represent a modifiable maintenance factor influencing the trajectory of PGD. Their predictive utility was strongest in the long-term, possibly suggesting that targeted interventions may be most effective after 6–12 months post-death. Moreover, the results highlight a shift in the relationship between grief symptoms and coping strategies over time. Initially, PGD symptoms predict levels of unhelpful coping strategies within the first 6–12 months after loss, suggesting an intertwined and cyclical connection between grief and coping during this period, possibly reflecting a normative grieving process. However, beyond 6–12 months, the influence of PGD symptoms on coping strategies diminishes, indicating a decoupling of the two constructs. This decoupling suggests that while coping strategies initially may be reactive to grief symptoms, they eventually take on a more autonomous role in either perpetuating or mitigating PGD, irrespective of the intensity of grief experienced, perhaps as they become more ingrained overtime. This shift underscores the importance of longitudinal assessment in understanding the transient dynamics of grief and related coping strategies and points to the potential of measuring maladaptive coping as an early indicator of later PGD. This is particularly important given these strategies may offer a clearer path through treatment than a focus solely on symptoms alone. However, further research is needed to explore this.

The pattern of results provide important insights into the temporal development and maintenance of PGD symptoms, lending strong support for the cognitive model for persistent PTSD (Ehlers and Clark, 2000) and the cognitive behavioural model for PGD (Boelen, van den Hout, et al., 2006). Both models underscore the impact of unhelpful coping strategies on symptom onset and maintenance. Moreover, the findings build upon prior research, establishing coping strategies as a causal mediator in the relationship between loss-related memory characteristics, appraisals, and PGD (Smith and Ehlers, 2021a). Due to model complexity the causal mediation analyses were unable to control for autocorrelations and baseline symptoms which may have reduced the predictive utility of the model. The findings reported in this paper confirm the predictive role of coping strategies over time after controlling for baseline symptoms and autocorrelations.

Subscale analyses of the OG-CS and PGD symptoms supported the results of the total scale with the influence of avoidance, proximity seeking and rumination on symptoms of PGD increasing in magnitude over time.

##### 4.1. Avoidance

Use of avoidance strategies (0–6 months) early on did not seem to lead to increased PGD symptoms in the short term. However, those with elevated grief early on are more likely to engage in avoidance later. This may point to the oscillation between loss-oriented (loss-focused) and restoration oriented (loss-avoidance) behaviours proposed by the dual process model as being reflective of normative grief adaptation (Stroebe and Schut, 1999). Beyond 6–12 months, however, if individuals are still utilising avoidance strategies to cope with their grief, they are more likely to experience PGD symptoms in the future, suggesting that the dual process model may be limited to the first 6–12 months of bereavement.

Avoidance of reminders of the loss are part of the DSM-5-TR criteria (Prigerson et al., 2021) and are used as a proxy for denial in the ICD-11 criteria (Killikelly et al., 2020). However, its inclusion has proven controversial with studies finding it peripheral to the other PGD symptoms (Stelzer et al., 2020) or finding its exclusion from the criteria does not change their internal consistency or, at best, improves it (Prigerson et al., 2021). The results of the psychometric validation presented in this paper demonstrate a clear and significant relationship between the avoidance strategies measured here and post-loss mental health problems, with longitudinal analyses pointing to their important role in predicting later PGD beyond 6–12 months. This discrepancy may best be explained by considering how avoidance is represented in the different diagnostic conceptualisations of PGD. The DSM-5-TR set of PGD criteria describe avoidance as being driven by a desire to avoid reminders that the person is dead (Prigerson et al., 2021) while measures assessing ICD-11 criteria for PGD ask about reminders of the deceased or the death (e.g. pictures and memories) (Killikelly et al., 2021). It might be that offering a reason for the avoidance (which may differ by individual) or offering limited examples of avoidance (such as memories or photos) may result in reduced endorsement of the symptom and misses the many ways in which people attempt to avoid the reality of the loss. The OG-CS may inform a comprehensive understanding of the avoidant strategies related to loss missed by the assessment of PGD itself.

##### 4.2. Proximity seeking

The relationship between proximity seeking and PGD symptoms was significant in both directions at both time points. While the impact of proximity seeking on symptoms was most pronounced in the long term, this difference in strength of association compared to the short term was not statistically significant. These results support previous longitudinal findings from the continuing bonds literature that demonstrated proximity seeking behaviours employed in the months following loss predicted a poorer long-term prognosis (Boelen, Stroebe, et al., 2006; Field et al., 2003; Stroebe et al., 2012). The inverse relationship of symptoms on proximity seeking was significant and stable across time indicating that bereaved people with elevated grief were more likely to engage in proximity seeking to manage their symptoms. This pattern of results fits with a vicious cycle in which maladaptive coping prevents the reduction in symptoms which in turn drives the use of maladaptive coping in order to manage painful symptoms.

##### 4.3. Rumination

The results for loss rumination and injustice rumination were similar. Ruminating about the loss was predictive of later PGD symptoms according to the ICD-11 diagnosis in both the short and long term but only in the long-term for DSM-5-TR PGD. As with the other subscales the

influence of rumination on symptoms was strongest after 6–12 months had passed. In fact, results demonstrated that while a bidirectional relationship between symptoms and rumination was present early on, rumination was shown to uniquely drive symptoms in the long-term. While many studies have found associations between rumination post-loss and mental health problems, longitudinal investigations demonstrating a prospective influence have been limited (Eisma et al., 2015; Nolen-Hoeksema et al., 1997, 1994; van der Houwen et al., 2010). These findings contradict a recent cross-lagged study that found no effect of depressive rumination on later post-loss psychopathology (Eisma et al., 2022). Eisma and colleagues assessed bereaved adults in their first year of loss and followed them every 6 weeks for just over a year. They found that, similar to our results, symptoms of PGD predicted later use of rumination but found no reciprocal relationship for rumination on symptoms. These findings highlight the importance of the type of repetitive thought in question when investigating rumination in bereavement. Eisma and colleagues used the Ruminative Response Scale of the Response Styles questionnaire (RRS-RSQ, Nolen-Hoeksema and Morrow, 1991) which includes a measure of repetitive thinking not specifically tied to loss (e.g. How often do you think “Why did I deserve this?” or “Why do I always react this way?”) which may not have adequately targeted the specific repetitive thoughts utilized by bereaved people. Eisma et al. (2022) conclude that specific types of grief-related rumination are likely to be more promising treatment targets than depressive rumination. Crucially, the rumination items chosen for the OG-CS were derived from interviews with bereaved people with and without PGD (Smith, 2018) and previous research on rumination (Eisma et al., 2015) and as such, may reflect bereavement-specific repetitive thinking.

Several limitations are worth noting. First, the sample was predominantly White and female, which may limit generalizability. Further research should aim to distribute the measure with more diverse populations to ensure applicability. Second, the study used online self-report measures to assess PGD levels which precludes any conclusions about probable diagnoses. Previous research has highlighted a discrepancy between diagnostic assessments and self-report measures more widely (Krebbler et al., 2014) and specifically in the bereavement context (Lenferink et al., 2019). However, diagnostic interviews are time and labour-intensive and as such collecting large samples longitudinally may be difficult. Future research that utilizes the OG-CS within a context where diagnostic interviews are being administered would add weight to the findings presented in this report although we note that currently there are no validated clinical interviews for PGD. Finally, the PGD ICD-11 diagnostic criteria were approximated using an item from a validated PTSD measure, which may have introduced some measurement error. Given validated scales are now available for the ICD-11 criteria (Hyland et al., 2023; Killikelly et al., 2020) further studies should aim to utilize these in the continued investigation of the OG-CS.

The psychometric properties of the OG-CS and its comprehensive measurement of a variety of loss-related coping strategies coupled with its utility in predicting prospective symptoms make it a useful tool for clinicians and researchers in the assessment and treatment of PGD.

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## CRedit authorship contribution statement

**Kirsten V. Smith:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Jennifer Wild:** Writing – review & editing, Supervision, Conceptualization. **Anke Ehlers:** Writing – review & editing, Supervision, Methodology, Investigation, Funding acquisition, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Supplementary materials

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