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Prolonged grief and attachment security: A latent class analysis

Fiona Maccallum[a,b,*], Richard A. Bryant[a]

[a] School of Psychology, University of New South Wales, Sydney, NSW 2052, Australia
[b] School of Psychology, University of Queensland, St Lucia, QLD 4072, Australia

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ABSTRACT

The death of a loved one has been associated with a wide range of mental health outcomes. Attachment theory is one of the primary paradigms for understanding bereavement outcome, yet there is comparatively little examination of the relationship between attachment style and bereavement responses. In this study we use Latent Class Analysis to identify subgroups of bereaved individuals based on patterns of prolonged grief (PG) and major depression symptom co-occurrence in 285 bereaved individuals. We then explored the relationship between these subgroups and attachment anxiety and avoidance. Three new subgroups of individuals were identified: one showing high levels of PGD and depression (PGD/depression), one showing high depression (Depression), and one showing few symptoms (Low). Attachment anxiety significantly differentiated between the three groups; the highest levels of attachment anxiety predicted membership of the PGD/depression group, the lowest levels, membership of the Low group. Attachment avoidance was predictive of greater depressive symptoms, with higher levels of attachment avoidance differentiating the two symptom groups (PGD/depression and depression) from the Low symptom group. These findings underscore the relevance of insecure attachment style to the current understanding of PGD.

1. Introduction

There is significant heterogeneity in the frequency, duration, and intensity of grief reactions. Whereas the majority of individuals may experience some temporary disruptions in mood, these individuals are typically able to adjust to their loss without extended impairment (Bonanno and Kaltman, 2001). In contrast, between 7–10% of bereaved individuals will experience Prolonged Grief Disorder (PGD; or complicated grief or Persistent Complex Bereavement Disorder; Lundorff et al., 2017; Nielsen et al., 2017; Prigerson et al., 2009). PGD, as described by ICD-11, is characterised by intense yearning, emotional distress at the loss, disbelief, lack of acceptance, emotional numbness, bitterness, loss of trust, self-identity confusion, and a loss of meaning and purpose in life, ongoing for at least 6 months after the loss, and is associated with significant impairment (Maercker et al., 2013). PGD is a major public issue because it is linked with a range of negative physical and mental health outcomes (Maciejewski et al., 2016; Prigerson et al., 2009). In addition to PGD, other psychological syndromes such as Major Depressive Disorder (MDD), Posttraumatic Stress Disorder (PTSD), and other anxiety disorders are observed individually and co-morbidly among bereaved populations (Nielsen et al., 2017; Shear et al., 2011; Simon et al., 2007). The heterogeneity observed in bereaved populations has prompted a growing interest in identifying factors that underlie these diverse responses.

Attachment theory has become one of the primary paradigms for understanding adaptation to bereavement. A number of theorists have proposed that attachment insecurities present a major risk factor for complications in the grieving process (Fraley and Bonanno, 2004; Lobb et al., 2010; Maccallum and Bryant, 2013; Mikulincer and Shaver, 2008; Shear and Shair, 2005; Stroebe et al., 2010). Contemporary attachment models propose two dimensions underlying adult attachment styles: attachment *anxiety* and attachment *avoidance* (Fraley and Shaver, 2000; Mikulincer and Shaver, 2017). Attachment anxiety relates to a person's appraisals of the availability and responsiveness of attachment figures in times of stress. Individuals high on attachment anxiety are overly dependent on interpersonal relationships to provide them with a sense of security, and worry that attachment figures will not be available in times of need (Fraley and Shaver, 2000; Mikulincer et al., 2003). These individuals typically respond to stress with overactivation of the attachment system, which may include hypervigilance to the attachment figure, vigorous attempts to achieve closeness, and intense distress to potential signs of rejection. In contrast, individuals high on attachment avoidance do not trust others to provide comfort in times of need, and tend to withdraw emotionally from close

* Corresponding author at: School of Psychology, University of Queensland, QLD 4072, Australia.
E-mail address: f.maccallum@uq.edu.au (F. Maccallum).

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relationships (Fraley and Shaver, 2000; Mikulincer et al., 2003). High attachment avoidance is characterised by a deactivation of the attachment system, which involves social withdrawal and minimization of emotional pain. The attachment responses associated with high attachment anxiety and avoidance are thought to place individuals at risk for a range of emotional problems including PGD (Bartholomew and Horowitz, 1991; Bowlby, 1980; Mikulincer and Shaver, 2008; Mikulincer and Shaver, 2017). In the context of bereavement, hyperactivation associated with attachment anxiety may exacerbate yearning for the unavailable deceased attachment figure, perpetuating distress. On the other hand, attachment avoidance may reduce distress, but may also impede the use of social supports and development of new attachments.

Many of the pre-loss risk factors linked with PGD involve threats to the development of secure attachments (for review see Lobb et al., 2010; Maccallum and Bryant, 2013). Despite much theorizing about the relationship between attachment style and bereavement outcome, comparatively few studies have directly examined this association. These studies have generally found a relationship between anxious attachment and worse bereavement outcomes, including PGD (Currier et al., 2015; Field and Sundin, 2001; Fraley and Bonanno, 2004; Meier et al., 2013; Wayment and Vierthaler, 2002; Wijngaards-de Meij et al., 2007a). However, findings relating to attachment avoidance (in the absence of attachment anxiety) have been inconsistent (e.g., Boelen and Klugkist, 2011; Jerga et al., 2011; Van der Houwen et al., 2010). Few studies have identified a relationship between avoidant attachment style and outcome in the absence of moderating or mediating factors (for an exception see Wijngaards-de Meij et al., 2007a); in one study in the context of high relationship quality, attachment avoidance was predictive of better outcomes (Mancini et al., 2009). This suggests the relationship between attachment avoidance and PGD may be more complex than attachment anxiety.

The typical approach to investigating the association between attachment style and bereavement outcome has been to examine relationships between attachment dimensions and grief or depression severity separately (Jerga et al., 2011; Mancini et al., 2009). The symptoms of PGD and MDD have been shown to cluster separately (Boelen et al., 2010), and so this approach has merit in its potential to isolate differential relationships with grief and depression. However, research on comorbidity has shown that mental health conditions co-occur more often than chance (Kessler et al., 2005). Accordingly, there has been increased interest in exploring the extent to which symptoms from different diagnostic groups co-occur within individuals, and further, whether there are subgroups of individuals who present with different symptom cluster profiles (Boelen et al., 2016; Nickerson et al., 2014). For example, Boelen et al. (2016) used latent class analysis (LCA) to examine symptom profiles of PGD and depression among bereaved individuals whose loved ones had died by accident, suicide or violence. LCA is a person-centered statistical approach. In contrast to variable-centred techniques, which focus on the relationships between variables, LCA seeks to identify subgroups of individuals who share common characteristics on a set of indicators (variables). The rationale for LCA is that by identifying discrete subgroups, or classes of individuals, it may then be possible to identify predictors of subgroup membership that can be used to inform risk assessments and treatment planning (Nickerson et al., 2014). Boelen et al. (2016) identified three classes in their sample: a class that had a high prevalence of PGD symptoms and low prevalence of depression symptoms, a class that had high prevalence of PGD *and* depression symptoms, and a class that showed low probability of either type of symptoms. Moreover, class membership was differentially predicted by the extent to which individuals endorsed catastrophic cognitions about their grief reactions and negative cognitions about them self and their life. Similarly, Nickerson et al. (2014) used LCA to examine socio-economic predictors of class membership based on symptom profiles of PGD and PTSD. They identified a number of differential predictors of class membership, such as adaptation difficulties since relocation and loss of culture and support.

By clustering individuals based on patterns of common symptom co-occurrence, LCA offers an approach way of to examining the relationship between predictors and outcomes in a way that has significant potential clinical utility. Accordingly, in this study we used this approach as a novel way to examine the relationship between attachment style and bereavement outcomes. First, we used LCA to identify subpopulations of bereaved individuals characterized by differential symptom profiles of PGD and MDD. Based on prior research, we expected to find four subgroups of individuals: a PGD only profile, a depression only profile, a PGD and depression profile, and a low symptom profile. We expected that attachment anxiety would be a significant predictor of membership of the PGD and PGD/depression and Depression only (Shaver et al., 2005) groups, but not the low symptom profile. Given the inconsistent findings relating to attachment avoidance and bereavement outcomes we did not have specific hypotheses regarding this dimension.

2. Method

2.1. Participants and procedures

The sample comprised 285 bereaved individuals (79.1% female) with mean age of 48.89 years (SD = 14.62). Participants were volunteers who responded to advertisements in newspapers and online recruitment websites seeking bereaved individual interested in participating in a grief treatment trial or a research project focused on understanding adaptation to bereavement. All participants attended a clinical assessment conducted by a Masters level clinical psychologist and completed self-report questionnaires. Participant characteristics are presented in Table 1. In terms of relationship to the deceased, participants had lost a spouse (28.5%), parent (38.9%), child (18.9%), or sibling or other close relative (13.7%). In terms of the nature of the death, 77.3% of deaths were the result of medical conditions, 12.2% were the result of an accident, 9.4% suicide and 1% homicide. Mean time since loss was 3.59 years (SD = 3.84). Participants provided written informed consent.

2.2. Measures

Prolonged Grief Assessment. Prolonged grief was assessed using a semi-structured clinical interview based on the PG-13 (Prigerson et al., 2009). The PG-13 assesses for the presence of yearning, emotional distress at the lost relationship, difficulty accepting the death, shock, avoidance of reminders, numbness, bitterness, difficulty engaging in life, identity disturbance, and a sense of purposelessness and meaninglessness and functional impairment. Items on the PG-13 were scored by clinicians on a 1–5 scale (1 = *not at all*, 5 = *several times a day/ overwhelmingly*). For each symptom, a dichotomous indicator variable (symptom absent/present) was constructed for entry into the LCA. A symptom was considered to be present if it was rated at least 3 (*at least once a week*) on the 5-point scale. This threshold is consistent with comparable studies as reflecting presence of a symptom (Boelen et al., 2016; Nickerson et al., 2014). We did not include the item assessing functional impairment as this item relates to the impact of the other items on the person's functioning, rather than representing an individual symptom. Cronbach alpha for the scale was α = 0.92.

Beck Depression Inventory. The BDI-II (BDI; Beck et al., 1996) is a reliable 21-item self-report measure of depressive symptomatology. Items are scored on a 0–3 scale. A subset of items corresponding to the DSM-5 criteria for MDD (American Psychiatric Association, 2013) were selected for inclusion. Again, items were dichotomized for inclusion in the LCA based on consideration of diagnostic criteria. A symptom was rated as absent if participants gave a 0 response (e.g, *I do not feel sad*), and present if they gave a response scored as 1 to 3 (e.g., *I feel sad much*