Archives of Gerontology and Geriatrics 90 (2020) 104170

Contents lists available at ScienceDirect

Archives of Gerontology and Geriatrics

journal homepage: www.elsevier.com/locate/archger

Carer burden and dyadic attachment orientations in adult children-older parent dyads

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ARTICLE INFO

Keywords:
Attachment style
Caregiver burden
Parent-child dyads

ABSTRACT

Background and Objectives: This study takes an interpersonal approach to the study of carer burden in families where adult children care for older parents. The aim of the study was to determine whether different pairings of attachment insecurity in older parent-adult child dyads are predictive of carer burden.
Research Design and Methods: Seventy dyads whereby adult children provided weekly care to their older parents completed self-report measures of attachment. Adult children also completed a measure of carer burden.
Results: Anxious-avoidant attachment insecurity pairings in parent-child dyads were associated with increases in carer burden. However, anxious-anxious and avoidant-avoidant attachment insecurity pairings were not associated with burden.
Discussion and Implications: The attachment insecurity of the care-recipient was found to moderate the association between a carer's attachment insecurity and burden, but only when the care-recipient's attachment insecurity differed to that of the carer's. These findings have implications for research, policy, and practice in aged care. The findings highlight the importance of focusing on attachment insecurity in aging families as well as taking a dyadic perspective when studying caregiving outcomes such as carer burden. The findings suggest that carers who may require the greatest support are those whose parents demonstrate contrasting orientations of attachment insecurity.

1. Introduction

Due to the aging of the population, adult children are increasingly required to care for older parents (e.g., Karantzas, Evans, & Foddy, 2010; Karantzas, Feeney, & Wilkinson, 2010). However, many adult children who provide care experience significant *carer burden* (i.e., the physical, emotional, financial, and psychological strain of caregiving; e.g., Zarit, Reever, & Bach-Peterson, 1980). Research investigating burden in the context of familial aged care has highlighted the critical role of the quality of the parent-child bond in explaining carer burden (Karantzas, Evans et al., 2010; Karantzas et al., 2010; Lee et al., 2018). However, research in this area is often investigated from the perspective of the carer (e.g., Karantzas, Romano, & Lee, 2019). Thus, a limitation of research is that studies do not adequately explore relationship dynamics between carers (i.e., adult children) and care-recipients (i.e., older parents) (Karantzas & Simpson, 2015). To address this, the current study takes a dyadic approach and adopts an attachment theory perspective—a widely researched theory on close relationships and caregiving (Bowlby, 1969, 1982; Simpson & Rholes, 2012). By investigating parent-child dyads, we aim to determine how carer attachment insecurity in combination with care-recipient attachment insecurity exacerbates carer burden.

1.1. Attachment theory

Attachment theory posits that relationship experiences, particularly those with primary carers (i.e., parents) early in life, result in the development of emotional bonds. These relationship experiences shape

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https://doi.org/10.1016/j.archger.2020.104170
Received 26 February 2020; Received in revised form 26 June 2020; Accepted 28 June 2020
Available online 30 June 2020

individual differences in behaviors, cognitions, and affect within familial and other close relationships (i.e., *attachment orientations)* across the lifespan (Gillath, Karantzas, & Fraley, 2016; Mikulincer & Shaver, 2016). Attachment orientations can be conceptualized along two dimensions known as attachment anxiety, and attachment avoidance (Brennan, Clark, & Shaver, 1998; Karantzas, Evans et al., 2010; Karantzas, Feeney et al., 2010). Experiences of inconsistent or inept care tend to result in an anxious attachment orientation, indicated by high levels of attachment anxiety. Anxious individuals have an excessive need for closeness and approval, are preoccupied with the availability of close others, and experience difficulties de-escalating distress (Brennan et al., 1998). They also engage in caregiving characterized by compulsive and intrusive behaviors that can interfere with a care-recipient's autonomy (Braun et al., 2012; Canterberry & Gillath, 2012), and tend to be demanding, and over-reliant on carers to meet their physical and emotional needs (Mikulincer & Shaver, 2016). These characteristics are underpinned by *hyperactivating* behavioral strategies, which entail the intensification of distress, rumination, and increased efforts to seek proximity to close others (Gillath et al., 2016; Mikulincer & Shaver, 2016).

Conversely, neglectful or rejecting caregiving experiences often result in an avoidant attachment orientation, indicated by high levels of attachment avoidance. Avoidant individuals develop an excessive self-reliance and a discomfort with interpersonal closeness (Brennan et al., 1998). Furthermore, avoidant individuals engage in caregiving characterized by a lack of warmth and involvement, and a reluctantance to seek care or communicate their needs (Canterberry & Gillath, 2012). These characteristics are underpinned by *deactivating* behavioral strategies, involving the suppression of distress and cognitive and behavioral disengagement from stressors (Gillath et al., 2016; Mikulincer & Shaver, 2016).

1.1.1. Attachment insecurity in adult child carers

Adult children who are high in attachment anxiety and are caring for older parents should experience a heightened sense of burden due to their reliance on hyperactivating behavioral strategies (Mikulincer & Shaver, 2016). Specifically, highly anxious carers' tendencies to intensify and/or exaggerate their distress resulting from challenging caregiving situations should result in feeling increased burden. Similarly, highly avoidant adult children who care for older parents should demonstrate a tendency to engage in deactivating behavioral strategies and also experience an increase their feelings of burden (Mikulincer & Shaver, 2016). The context of familial care often forces highly avoidant carers to maintain interpersonal closeness and frequent contact and to manage feelings of negative affect and distress expressed by the care-recipient. Consequently, day-to-day caregiving tasks should be particularly burdensome to highly avoidant people. Indeed, the literature on the direct association between carer attachment orientations and carer burden has confirmed that greater attachment insecurity is associated with greater burden as perceived by caregivers (e.g., Karantzas, Evans et al., 2010; Karantzas, Feeney et al., 2010; Lee et al., 2018).

1.1.2. Attachment insecurity in older parent care-recipients

Within a caregiving context, factors related to the care-recipient are often a cause of stress for carers, resulting in higher carer burden (Pinquart & Sörensen, 2003; van der Lee, Bakker, Duivenvoorden, & Dröes, 2014). In this respect, a care-recipient's attachment insecurity can be considered to be a stressor for the carer. For example, the tendency for highly anxious care-recipients to request frequent help (Karantzas & Cole, 2011) and to compulsively seek proximity when stressed can be difficult or overwhelming for carers and may heighten their burden (Banse, 2004; Frazier, Byer, Fischer, Wright, & DeBord, 1996). Likewise, the tendency for highly avoidant care-recipients to not communicate their own needs and suppress their desire for independence should make caregiving even more burdensome. Carers, for example, may need to expend greater effort identifying and addressing the avoidant care-recipient's needs and managing their resistance to accepting care (Banse, 2004; Feeney, 1994). Although research on the attachment orientations of care-recipients is limited, preliminary evidence supports the idea that care-recipient attachment insecurity is positively associated with perceptions of carer burden (Karantzas, Evans et al., 2010; Karantzas, Lee, & Romano, 2019).

1.1.3. Carer and care-recipient pairings of attachment insecurity: A dyadic perspective

Our brief review of research into attachment insecurity within carers and carer recipients highlights the importance of taking a dyadic perspective when studying attachment within families. One way in which this can be achieved is by investigating attachment insecurity pairings between adult children and older parents. In relation to burden, some carer and care-recipient attachment insecurity combinations are likely to be caustic (Shallcross, Howland, Bemis, Simpson, & Frazier, 2011), further exacerbating burden. For instance, burden may be especially high in dyadic pairings where one dyad member is high on attachment anxiety and the other is high on attachment avoidance. These anxious-avoidant pairings may exacerbate burden, as each dyad member possesses dramatically different cognitive, behavioral, and affective responses within a caregiving context (Ein-Dor, Doron, Solomon, Mikulincer, & Shaver, 2010; Frazier et al., 1996).

To illustrate this point, for avoidant children, caring for an anxious parent ought to be a stressor that heightens carer burden. Anxious care-recipients' excessive desire for closeness, and compulsive care-seeking tendencies are likely to hamper avoidant carers' tendencies to engage in more distant and withdrawn caregiving. Likewise, caring for avoidant older parents may become a stressor that exacerbates burden in anxious adult children. For this pairing, anxious carers are likely to engage in caregiving characterized by over-involvement and compulsivity, which ought to be met with a discomfort with closeness and a desire for self-reliance by their avoidant older parent.

Although we believe that anxious-avoidant attachment pairings are likely to exacerbate a carer's experience of burden, deriving predictions about how carers and care-recipients who are high on the same attachment dimension should be associated with burden is more complicated. There are two plausible, competing possibilities. First, from a stress-enhancing perspective, either anxious or avoidant attachment orientations held by the care-recipient should exacerbate the association between the carer's attachment insecurity and their burden (Simpson & Rholes, 2012). For example, anxious carers and care-recipients are likely to engage in caregiving and care seeking behaviors reflective of hyperactivating strategies, which in turn may intensify distress. Conversely, avoidant carers and care-recipients may both struggle with their inability to disengage from the stressful caregiving context, given that the context mandates caregiving must be provided and accepted, within reason. Nevertheless, the discomfort with closeness and desire for self-reliance harbored by carers and care-recipients who are both avoidant may also heighten burden.

Second, from a stress-buffering perspective, attachment insecurity in carers might attenuate burden if the behavior of their attachment figure meets their specific attachment needs (Simpson & Overall, 2014). Carers who are high on the same attachment dimension as care-recipients should hold similar cognitive, affective, and behavioral responses in a caregiving context (Ein-Dor et al., 2010; Frazier et al., 1996). Thus, such carers may be better equipped to deal with and care for care-recipients with similar needs and behavioral tendencies, and potentially buffer burden. For example, avoidant care-recipients should be less likely to request or seek care, which may allow avoidant carers to provide less care, or to render care in a more distant, withdrawn manner that aligns with their attachment orientation. Likewise, anxious carers may feel less burdened when caring for a parent who also is anxious, given that both have a strong need for closeness and emotional connection. Dyadic studies support this notion in that partners who are high on the same attachment dimension tend to experience positive

relational outcomes (Banse, 2004; Ein-Dor et al., 2010).

1.2. The current study

The current paper investigates the associations between pairings of carer and care-recipient attachment insecurity and carer burden. Drawing on the literature outlined, we derived a series of predictions. Specifically, carers should experience greater burden when dyads are characterized by anxious-avoidant attachment orientation pairings (i.e., one dyad member is high on attachment avoidance and the other is high on attachment anxiety, Hypothesis 1). However, two alternative predictions can be proposed when dyads exhibit anxious-anxious, or avoidant-avoidant attachment insecurity pairings (i.e., both members of the dyad have similarly high levels of either attachment anxiety or attachment avoidance). Firstly, from a stress-enhancing perspective, similar attachment pairings may predict greater burden (Hypothesis 2a). Alternatively, from a stress-buffering perspective, similar attachment orientations may result in carers experiencing less burden (Hypothesis 2b).

2. Materials and method

2.1. Participants

The study included seventy adult children-older parent dyads who were recruited across metropolitan (N = 63) and rural (N = 7) Victoria, Australia to participate in the study. The inclusion criteria for adult children stated that they were required to be over 18 years of age, and providing care to their older parent at least once a week. Regarding living arrangements, 13 dyads co-resided. The inclusion criteria for older parents stated that they were required to be over the age of 60, living in the community (i.e., not in an aged care facility), and to have no moderate or severe cognitive impairment.[1] Additionally, both dyad members were required to be fluent in reading and speaking English. In terms of cultural background, 68% of dyads were Australian, 15% were Northern/Western European, 8% were Southern/Eastern European, 3% were South East Asian, and 2% were North East Asian, North American, and South African respectively.[2] Adult children ranged from 21 to 72 years of age (M = 51.1, SD = 0.9; 17 men, 53 women), and older parents ranged from 60 to 98 years of age (M = 80.4, SD = 7.8; 18 men, 52 women). Adult children had been providing care to their older parent for an average of 7.8 years (SD = 6.4) and were currently engaged in the care of their older parent for an average of 2.6 days per week (SD = 1.5). Adult children typically reported their older parents to have a high degree of independence (M = 13.91, SD = .43; scale range 0–16, higher scores indicate greater independence) as assessed by an informant version of the Instrumental Activities of Daily Living Scale (Lawton, 1971)[3] .

2.2. Materials

2.2.1. Familial Attachment (completed by both the adult child carer and older parent care-recipient)

The familial attachment orientation of both adult children and older parents was assessed using the Adult Familial Attachment Scale (Karanrzas, Lee, Marshall, Mullins, Romano, Feeney, McCabe, & Simpson, 2017). The measure comprises 25 items including statements such as, “I prefer to depend on myself rather than on my parent/child” for attachment avoidance, and “My parent is often reluctant to get as close as I would like” for attachment anxiety. A 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) was used to rate the items. The Adult Familial Attachment Scale has two subscales: attachment anxiety (α = .76 adult child; α = .77 older parent), and avoidance (α = .89 adult child; α = .74 older parent). Previous higher-order confirmatory factor analysis (CFA) of both versions (Karantzas et al., 2017) yielded good fit and an identical two-factor higher-order structure (attachment anxiety and avoidance) (adult children: $\chi^2(253) = 443.62$, $p < .001$; comparative fit index (CFI) = .94; standardized root mean square residual (SRMR) = .04; older parents: $\chi^2(253) = 21.67$, $p < .001$; CFI = .92; SRMR = .06). Scores are averaged for each dimension, with higher scores indicating higher levels of attachment anxiety or avoidance. To address criticisms that have been levelled against the assessment of attachment in later life, an attachment measure specific to adult familial relationships was used. Firstly, some studies that claim to assess attachment orientations often conflate these orientations with related but distinct concepts, such as affection, intergenerational solidarity, and relationship closeness (Karantzas & Simpson, 2015; Karantzas et al., 2019). Second, some studies use measures of romantic attachment orientations within ageing research. These studies have been questioned in terms of whether administering self-report measures that are typically designed to assess romantic relationship reflect valid assessments of attachment in parent-child relationships in later life (Karantzas & Simpson, 2015; Karantzas et al., 2019; Michael Bradley & Cafferty, 2001).

2.2.2. Carer Burden (completed by adult child carer only)

The Zarit Burden Interview (self-report, Zarit et al., 1980) was used to assess carer burden. The measure has 22 items including statements such as, “Do you feel stressed between caring for your parent and trying to meet other responsibilities for your family or work?”, rated on a 5-point scale ranging from 0 (*never*) to 4 (*nearly always*). Scores are summed across items, with higher scores indicating greater levels of carer burden (α = .93).

2.3. Procedure

The recruitment of participants took place primarily through flyers placed in retirement villages. Additionally, online advertisements were included in the e-newsletters of Carers Australia branches, and social media outlets such as Seniors News and the Council of the Ageing (COTA). The advertisements provided a link to the study’s website, as well as the contact telephone number and email address for the study, which allowed potential participants to express interest in participating in the study. If an adult child contacted the research team (either through the website expression of interest form, by phone, or email), a member of the team would follow-up with a phone call to provide more detailed information about the study and to determine whether the

[1] As part of the eligibility screening for participation, adult children completed a measure of cognitive decline regarding their older parent. To assess the older parent’s cognitive decline, the short version of the Informant Questionnaire on Cognitive Decline in the Elderly was used (Short IQCODE; Jorm & Jacomb, 1989). The Short IQCODE has 16 items, whereby the informant rates changes in the elderly subject’s performance on various tasks over the past 10 years. These include statements such as, “Remembering things that have happened recently”, which are scored on a 5-point scale, ranging from 1 (*much improved*) to 5 (*much worse*). Higher scores indicate greater cognitive decline (α = 0.93–0.97; Jorm et al., 1991; Jorm, 1994). Scores on each item are averaged, with higher scores representing greater cognitive decline, and a cut-off score of 3.6 indicating mild cognitive decline.

[2] Categorization of cultural background was based on the Australian Standard Classification of Cultural and Ethnic Groups, 2016, Australian Bureau of Statistics.

[3] Parental independence was assessed using the Instrumental Activities of Daily Living (IADL) scale (Lawton, 1971). The measure assesses IADLs across eight instrumental tasks (e.g., telephone use, meal preparation, a = .92). Items are rated on the degree of independence with which an individual can carry out tasks, ranging from 0 (completely dependent) to 2 (completely independent). Items are summed to range between 0 and 16, with higher scores indicating greater independence.

adult child (and their older parent) met the eligibility criteria. To ensure that the parent did not evidence moderate-to-severe cognitive impairment, the screening call also involved administering an informant cognitive assessment using the short form of the Informant Questionnaire on Cognitive Decline in the Elderly (Short IQCODE; Jorm, 1994)[1] to the adult child. If the older parent contacted the research team to express an interest in the study on behalf of themselves and their adult child, the screening call was identical to that conducted with the adult child minus the assessment of cognitive impairment. Because the cognitive impairment assessment was informant-focused, the adult children of these older parents were then contacted for administration of the Short IQCODE by phone.

Upon recruitment, the Plain Language Statement, consent forms, and measures of familial attachment and carer burden were either sent to participants' respective addresses or a link to an online survey was emailed to them.[4] The surveys were to be completed independently (i.e., not in consultation with the other member of the dyad) and returned to researchers at Deakin University. Following this, adult children completed measures of familial attachment and carer burden, while the older parent completed only the measure of familial attachment.[5]

2.4. Data analysis

To determine the extent to which the association between carer attachment orientation and carer burden was moderated by the attachment orientation of the care-recipient, a two-step hierarchical multiple regression was conducted.[6] In Step 1, all main effects of carer and care-recipient attachment orientations were entered and regressed onto carer burden. In Step 2, four interaction terms were entered to capture all possible pairings of attachment orientations in child-parent dyads. The interactions were carer attachment anxiety x care-recipient attachment anxiety, carer attachment avoidance x care-recipient attachment avoidance, carer attachment anxiety x care-recipient attachment avoidance, and carer attachment avoidance x care-recipient attachment anxiety. All main effects and interaction terms were grand mean-centred to scale the intercept to the mean of the dependent variable (i.e., carer burden).

Power was estimated to detect a modest effect size (f^2 =.20) using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). Based the sample size ($N = 70$ dyads) and two-tailed significance test with $\alpha = .05$, the study was highly powered (.95) to detect a modest effect size.

3. Results

The mode and scale ranges for the key variables in the study are reported in Table 1. Adult children and older parents reported low-to-moderate modal scores on attachment anxiety and avoidance. Likewise, within-dyad modal score for attachment anxiety and avoidance revealed that, adult children and their older parents reported low-to-moderate responses on both attachment dimensions. Finally, adult children reported relatively low modal scores on perceptions of carer burden.

Table 1
Descriptive Statistics of Independent and Dependent Variables for Carers (Adult Children) and Older Parents (Care-Recipients).

Variable	*Mode*	Scale Range
Carer Att. Anxiety	2	1 – 7
Carer Att. Avoidance	4	1 – 7
Care-recipient Att. Anxiety	1	1 – 7
Care-recipient Att. Avoidance	3	1 – 7
Dyadic Att. Anxiety	3	1 – 7
Dyadic Att. Avoidance	2	1 – 7
Carer burden	11	0–88

Note. Att. = Attachment, $N = 70$.

The hierarchical regression model predicting carer burden was significant overall ($R = .67$, $R^2 = .45$, $F[8,61] = 6.24$, $p < .001$).[7] As shown in Table 2, both Step 1 and Step 2 significantly contributed to the full model. In Step 1, only carer attachment avoidance was positively associated with burden. In Step 2, carer attachment avoidance remained significant.[8] However, care-recipient attachment anxiety was also positively associated with carer burden. Furthermore, the two two-way interactions involving anxious-avoidant attachment insecurity pairings were significant; that is, carer attachment anxiety x care-recipient attachment avoidance and carer attachment avoidance x care-recipient attachment anxiety were positively associated with carer burden. As shown in Fig. 1, plotting of the simple slopes revealed that carer burden was significantly higher in dyads where a carer was high in attachment anxiety and the care-recipient was high in attachment avoidance than when the care-recipient was low in attachment avoidance ($t = 2.63$, $p = .001$, Fig. 1[a]). Carer burden was also higher in dyads in which a carer was high in attachment avoidance and the care-recipient was high in attachment anxiety than when the care-recipient was low in attachment anxiety ($t = 4.92$, $p < .001$, Fig. 1[b]).

4. Discussion

This novel dyadic study of adult children carers and older parent care-recipients investigated the extent to which insecure child-parent attachment bonds predict carer burden. The study findings provide clear support for our first hypothesis—that anxious-avoidant attachment pairings are associated with greater burden. However, the study findings did not support our hypotheses regarding anxious-anxious or avoidant-avoidant attachment insecurity pairings. That is, parent-child dyads in which carers and care-recipients both had an anxious attachment orientation or both had an avoidant attachment orientation neither exacerbated (Hypothesis 2a) nor attenuated (i.e., buffered; Hypothesis 2b) carer burden. It may be that within the context of familial caregiving (unlike the context of a romantic relationship), the carer and care-recipient adopt distinct roles, and thus, carer burden may be most predicted when these distinct roles are coupled with contrasting attachment orientations in carers and care-recipients. Hence there may be less of a direct cost or benefit when both members of the dyad utilize similar attachment behavioral strategies to manage caregiving situations.

[4] Five participants completed the survey online. However, due to a change in study protocol resulting from numerous requests from participants to complete physical copies of the surveys, the remaining 65 participants completed paper surveys.

[5] The methods and results reported in this paper reflect a sub-sample of a larger longitudinal study of familial caregiving in later life by Karantzas, McCabe, Feeney, and Simpson - Australian Research Council Discovery Project Grant (DP160102874).

[6] Multiple regression analyses model the interdependence of the independent variables, making this analytic approach appropriate for use with dyadic data involving self-reports on the same independent variables reported by both parents and children.

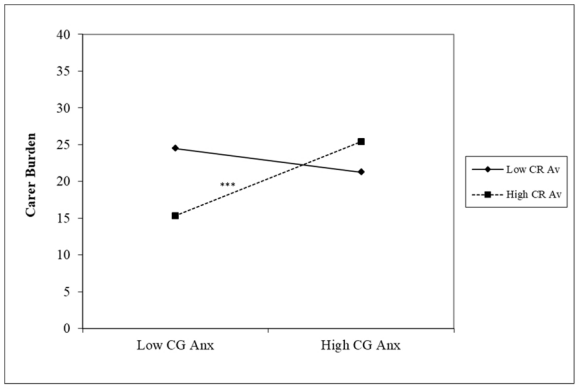
[7] Missing value analyses revealed that a maximum of 1.9% of data was missing for variables in the dataset, and that these data were missing completely at random. In light of this, missing values were replaced using Expectation Maximization.

[8] Preliminary analyses were conducted controlling for caregiving load (i.e., length of time providing care, number of days of care provided per week, caregiving tasks [e.g., physical/organisational caregiving responsibilities] and whether carers provided care to a third party). Analyses revealed that controlling for all three variables related to caregiving load did not significantly alter the magnitude of associations reported in Table 2.

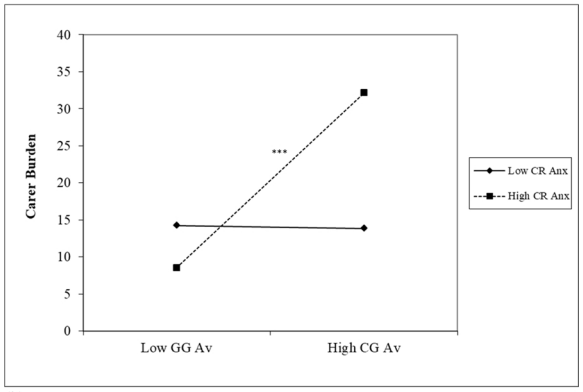
Table 2
Hierarchical Regression Model Predicting Carer Burden in Adult Children.

Independent Variables	B	SE	β	LB 95 % CI	UB 95 % CI
Step 1	R = .56, R^2 = .31, $F(4,65) = 7.54$, $p < .001$				
Carer Att. Anxiety	2.351	1.889	.144	−1.421	6.124
Carer Att. Avoidance	6.961	2.006	.420***	2.956	10.966
Care-recipient Att. Anxiety	2.701	1.636	.184	-.565	5.967
Care-recipient Att. Avoidance	−1.669	1.597	−.114	−4.858	1.520
Step 2	R = .67, R^2 = .45, $F[8, 61] = 6.24$, $p < .001$				
Carer Att. Anxiety	2.004	1.851	.123	−1.696	5.703
Carer Att. Avoidance	6.584	1.872	.397***	2.841	10.326
Care-recipient Att. Anxiety	6.259	1.916	.427**	2.428	10.089
Care-recipient Att. Avoidance	−1.903	1.617	−.130	−5.135	1.329
Carer Att. Anxiety x Care-recipient Att. Anxiety	−1.385	1.716	−.090	−4.816	2.046
Carer Att. Anxiety x Care-recipient Att. Avoidance	3.780	1.547	.293*	.688	6.872
Carer Att. Avoidance x Care-recipient Att. Avoidance	−3.439	2.021	−.199	−7.480	.601
Carer Att. Avoidance x Care-recipient Att. Anxiety	6.735	2.048	.427**	2.641	10.830

Note. Att. = Attachment, LB = Lower Bound, UB = Upper Bound, β = standardized regression coefficient.
* $p < .01$.
** $p \leq .01$.
*** $p < .001$.



(a)



(b)

Fig. 1. Significant interactions between anxious-avoidant attachment orientation pairings among adult child carers and older parent care-recipients.
Note. CG = carer, CR = care-recipient, Anx = attachment anxiety, Av = attachment avoidance.
*** = slope significant $p \leq .001$.

These findings suggest that the attachment insecurity of parents exacerbates the burden experienced by carers who themselves are insecurely attached, but only when their insecurity contrasts with the attachment orientation of the carer. These anxious-avoidant attachment pairings are most likely to exacerbate carer burden because both the adult child and older parent harbor distinct attitudes, expectations, and behaviors when it comes to managing interpersonal situations (Ein-Dor et al., 2010; Frazier et al., 1996) such as familial caregiving. Drawing on research examining romantic relationships, when one dyad member is highly avoidant and the other is highly anxious, destructive interaction patterns tend to emerge (Feeney & Karantzas, 2017; Shallcross et al., 2011). For instance, avoidantly attached individuals are less responsive to the needs of an anxiously attached partner, while anxiously attached partners underestimate their responsiveness when their partner is avoidantly attached (Shallcross et al., 2011). Furthermore, partners high on attachment anxiety often engage in pursuit or demanding behaviors, while partners high on attachment avoidance frequently respond with distancing and/or withdrawing behaviors (e.g., Millwood & Waltz, 2008). The chronic need and demands for greater closeness and validation typically expressed by highly anxious partners should frustrate and tax the resources of their highly avoidant partners, who typically desire more distance, and less emotional involvement (Mikulincer & Shaver, 2016). In contrast, the cognitive and affective resources of partners who are highly anxious should be taxed when their bids for closeness and validation are met with stonewalling behaviors by their highly avoidant partners.

Prior research on caregiving highlights the fact that the distinct interaction pattern described above can also emerge during the provision and receipt of care in romantic relationships when one partner is highly anxious and the other is highly avoidant (e.g., Alexander, Feeney, Hohaus, & Noller, 2001; Braun et al., 2012; Simpson, Rholes, & Nelligan, 1992). Extending this work to familial caregiving, avoidant carers' tendency to engage in caregiving in a more distant, withdrawn manner contradicts the closeness and compulsive care-seeking tendencies of highly anxious care-recipients. Thus, for avoidant carers, having a care-recipient who is anxious should be stressful and heighten carer burden. This contrasting pattern of pursuit/distancing regarding familial care exchanges should also impact highly anxious carers as revealed in their reports of greater carer burden when faced with caring for a highly avoidant care-recipient. In sum, the findings of the current study suggest that these contrasting ways of dealing with caregiving situations indeed heighten the burden that adult children experience when caring for their older parents.

4.1. Implications

These findings carry significant implications for policy and research regarding familial caregiving. First, the findings highlight the importance of considering familial attachment bonds in order to develop a better understanding of the interpersonal predictors and moderators of carer burden. In particular, our results illustrate that adopting a dyadic

perspective can provide insights into how particular pairings of attachment insecurity in parents and children are especially problematic in heightening the burden experienced by carers. These findings can inform aged care practitioners and policy makers on how to identify and support carers whose attachment insecurity contrasts with that of their parents. Specifically, identifying the attachment orientations of carers and care-recipients using simple self-report measures can help practitioners tailor the support provided based on the attachment needs of both older parent *and* adult child. This support may come in the form of psychoeducational and coaching interventions in which both dyad members are informed about attachment orientations and strategies on how to effectively meet each other's attachment needs. For example, such interventions can be geared to teach anxious carers to offer care to avoidant care-recipients in a way that does not undermine their autonomy and that teaches them less demanding and critical ways of handling challenging conversations involving emotional care needs (see Arriaga, Kumashiro, Simpson, & Overall, 2018). Likewise, strategies can be devised for avoidant care-recipients to assist them to solicit care in more direct and less withdrawn ways that still make their needs evident to the carer.

4.2. Limitations and future directions

Despite this study's many strengths, it has some limitations. First, the associations reported in the current study are cross-sectional in nature, so causation cannot be inferred from these results. Future longitudinal studies can help us better understand exactly how attachment insecurity in parent-child dyads impacts carer burden and whether carer burden contributes to heightened insecurity in both carers and care-recipients. Second, due to the inclusion and exclusion criteria of the study, our sample consisted of older parents who required low-to-moderate levels of weekly care. It is therefore important for future research to cross-validate our findings by including dyads in which moderate-to-high levels of care are being provided to parents by their adult children. Third, the current study focused on the direct association between pairings of attachment insecurity in parent-child dyads and carer burden. Lastly, although the sample consisted of families from a range of cultural backgrounds, the study selection criteria required participants to speak and read fluent English. The exclusion of people not fluent in English may have implications for the representativeness of these findings. As such, future research should be conducted which includes families from various cultural backgrounds who do not speak English in order to determine how attachment predicts burden across people from culturally and linguistically diverse backgrounds. Furthermore, future research needs to examine the explanatory mechanisms underlying the associations found in this study between dyadic attachment orientations and carer burden. The study of these mechanisms may include self-report or observational assessments of the style or manner in which care is provided and sought, and the communication and/or conflict interaction patterns which dyads engage in when navigating familial care arrangements. To date, research assessing attachment has found that caregiving processes and conflict patterns are indeed important mechanisms that explain associations between attachment insecurity and a variety of outcomes in romantic relationships (e.g., Alexander et al., 2001; Karantzas, Feeney, Goncalves, & McCabe, 2014; Overall, Simpson, & Struthers, 2013).

5. Conclusions

This novel dyadic study demonstrated that insecurely attached carers are likely to experience heightened levels of burden in situations whereby the dyad have an anxious-avoidant pairing of attachment insecurity. These findings illustrate the need for future research, policy, and practice on familial aged care to develop psychosocial and relationship-focused programs and interventions aimed at strengthening the familial bonds within aging families. In doing so, the aged-care sector can help to ensure that the familial care of older parents is sustainable in the decades to come.

Funding

This work was supported by The Australian Research Council (DP160102874).

CRediT authorship contribution statement

Daniel Romano: Conceptualization, Methodology, Formal analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing, Visualization. **Gery C. Karantzas:** Conceptualization, Methodology, Validation, Resources, Writing - original draft, Writing - review & editing, Supervision, Project administration. **Emma M. Marshall:** Conceptualization, Validation, Resources, Writing - original draft, Writing - review & editing, Supervision. **Jeffry A. Simpson:** Conceptualization, Methodology, Validation, Resources, Writing - original draft, Writing - review & editing. **Judith A. Feeney:** Conceptualization, Methodology, Validation, Resources, Writing - original draft, Writing - review & editing. **Marita P. McCabe:** Conceptualization, Methodology, Validation, Resources, Writing - original draft, Writing - review & editing. **Juwon Lee:** Conceptualization, Methodology, Validation, Resources, Supervision, Writing - original draft, Writing - review & editing. **Ellie R. Mullins:** Conceptualization, Methodology, Validation, Resources, Supervision, Writing - original draft, Writing - review & editing.

Declaration of Competing Interest

None.

Acknowledgements

We thank the various branches of Carers Australia, Uniting AgeWell, Alfred Health Carer Services, Jewish Care, and Lions Club Australia for their assistance in the recruitment of participants. We also thank the Wyndham, Manningham, Yarra Ranges, and Knox city councils, as well as the following retirement villages: Aveo, Hayville Glengollan, Bedford Heights, Yernga, Rivervue, Lifestyle, Barrina Gardens, and Gowanbrae for their involvement in recruitment.

Access to the data study materials, and details regarding analytic methods will be made available upon request of the corresponding authors.

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