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Assessing the Impact of Factors on Parental Grief Among Older Chinese Parents

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ABSTRACT

A sample of 206 older Chinese bereaved parents was recruited and the effects of attachment style, coping strategy, social support, and spirituality on parental grief were investigated utilizing structural equation modeling. The results revealed problem-focused and dysfunctional coping strategy, insecure attachment style, less social support from family and friends would likely lead to higher levels of parental grief. The study explored how the unique context of Chinese culture and policies may shape the severity and duration of parental grief. It provides a baseline to understand the complexity of parental grief in China and to design and improve future interventions.

Introduction

Parental grief has been recognized as "the most intense and overwhelming of all grief" (Davies et al., 2004, p. 506). In addition to the typical grieving symptoms, bereaved parents also reported higher prevalence of muscle soreness, lump in the throat, feeling uneasy in public (Gilllis, Moore, & Martinson, 1997), headaches and fatigue (Foster et al., 2011). Many grieving parents were found to have higher levels of shame, anger, fear (Arnold, Gemma, & Cushman, 2005), and blame (Dyregrov, Nordanger, & Dyregrov, 2003). Furthermore, feelings of rejection, abandonment, embarrassment, and stigma are frequently voiced by bereaved parents, particularly those whose children died traumatically by homicide or suicide (Arnold et al., 2005).

Research evidenced parental grief in particular was often found to be prolonged (Neidig & Dalgas-Pelish, 1991). Clinically, when people continue to grieve for an extended period of time, they may exhibit symptoms of a state known as prolonged grief disorder (PGD) (Prigerson et al., 2009) or complicated grief (CG) (Prigerson et al., 1995). Major symptoms differentiating PGD include persistent and disruptive yearning, pining, longing for the deceased, and trouble accepting the death. Prolonged grief has been shown to contribute to worse physical and mental health (Lannen, Wolfe, Prigerson, Onelov, & Kreicbergs, 2008), more health-risk behaviors (Kivimäki, Vahtera, Elovainio, Lillrank, & Kevin, 2002) and a higher level of suicidal ideation (Li, Laursen, Precht, Olsen, & Mortensen, 2005).

Research revealed that grief increasingly impacts people who are of advanced age. Older adults who are grieving the death of a child or spouse were found to have higher prevalence of PGD (Ott, Lueger, Kelber, & Prigerson, 2007). The death of a child in later life was found to increase the chances of social isolation and loneliness (Stroebe, Zech, Stroebe, & Abakoumkin, 2005). Aging necessitates the older adults' reliance on others for care and assistance as the death of a child negates the potential support from the deceased. It is critical to stress that factors like aging and needing of care added to the older parents' complicated and magnified grief responses.

Current research on parental grief has not focused on the rapidly increasing aging population. The role various risk or protective factors play in the grieving process has not been investigated as a whole. In addition, most modern grief theories and clinical working models are constructed in the context of Western society. Those theories and models have not been fully tested in other cultures, especially through a more comprehensive statistical model. Therefore, there is an urgent need to embrace the research considering the older parents' unique characteristics and their cultural and political context.

The current study focuses specifically on older Chinese parents. The one-child policy has been implemented in China for over 30 years. Those parents who complied with the policy decades ago now entered their late adulthood with the risk of losing their only child. The estimation is that there are at least 76,000 families who experience the death of a child in China each year (National Health Department of China, 2010). This particular group of older bereaved parents whose only child died are referred to as "shiduers"; an identity that is stigmatized in a Confucian culture that believes having no posterity amounts to failure. In the context of the one-child policy, these parents are growing older without the emotional and financial support that most Chinese parents depend on (Zheng & Lawson, 2015). Issues of later life care and mental health of older bereaved parents have reached crisis point as this generation ages. These parents are a growing and understudied group; very limited knowledge has been generated to help to understand their particular grieving experiences. The goal of the current study is to gain an understanding of the relationships between factors impacting older bereaved parents in China who are experiencing prolonged grief due to the death of their only child.

Researchers suggested in order to understand the complexity of grief, multiple variables need to be considered, including personal history, gender, culture, coping styles, personality traits, and support systems (Rubin, Malkinson, & Witztum, 2000). Worden (2009) identifies seven overarching factors for practitioners to consider while working with complicated bereavement: 1. the relationship to the deceased, 2. the nature of the attachment, 3. the mode of death, 4. historical antecedents, 5. personal variables, including age and gender as well as coping and cognitive style. 6. social variables, including perceived social and emotional supports as well as satisfaction with the level of this support and religious resources, and 7. concurrent stresses.

Empirical research examined the above factors. The number of children in the family and age of the deceased child were found to be impactful on severity of grief. Parents who lost their only child appear to have a more difficult time adjusting than those with many children (Dyregrov et al., 2003). Keesee, Currier, and Neimeyer (2008) reported that parents losing older children were more likely to demonstrate symptoms of complicated grief. The attachment style of the parent was suggested to relate to parental loss. Grief and depression symptoms were more evidenced among those parents who were more insecurely attached (Christiansen, Elklit, & Olff, 2013). On the other hand, secure attachment among bereaved parents was found to be associated with more active support seeking behaviors (Kearney & Byrne, 2015).

Research found that emotion-focused and dysfunctional or avoidant coping strategies are likely to be important predictors of symptomatology in bereaved parents (Christiansen et al., 2013; Harper, O'Connor, & O'Carroll, 2014) . Social support from family and friends was also identified as one of the important resources for coping with loss, but many bereaved parents reported that extended family members often are unable to offer the support they need (Marx & Davidson, 2003). Lack of social support has been found to be associated with higher levels of distress, psychological morbidity, and PTSD following the death of a child (Scheidt et al., 2012). Research has also looked into the relationship between spirituality and parental grief. Berkey (2007) reported bereaved parents utilized their faith to cope with the death of their child, and the belief in an afterlife was particularly comforting. However, a relationship between religion and spirituality with negative bereavement outcomes has also been found (Wortmann & Park, 2008). This inconsistency of findings indicates the relationship between religious coping or spirituality and parental grief is inconclusive and needs to be studied further.

In summary, the above literature examined many factors that affect the grieving process, but do not investigate how these factors work together to impact the bereaved. The current study is designed to address this gap in research by utilizing a structural equation modeling method to test multiple factors simultaneously. A statistical model was developed as an initial attempt to measure the relative contribution of factors impacting the severity of parental grief among older parents in China. Variables from Worden's (2009) conceptual framework that were identified in the current literature and found to be significantly related to parental grief were used. The resulting model includes attachment style, coping strategy, social support, and spirituality, focusing on the direct and indirect linkages between the proposed factors and parental grief.

Method

Participants and sampling procedure

A sample of 206 participants were recruited via multiple online bereaved parents' support groups. People in these groups used a screen name instead of their real name. A non-probabilistic convenience sampling

method that relies on available subjects was used for the recruitment.

Participants who met the following criteria were included in the study:

1. Must be the age of 55 or over.
2. Self-identified as a parent who experienced the death of a child.
3. The deceased child has been dead for more than 6 months.

In addition, participants had to be able to read, write, and have access to a computer or smartphone and the Internet since the study utilized an online survey using a self-completed questionnaire to collect the data. The survey site opened with an introduction letter to the study. Prior to the survey, the study adopted a self-screening procedure to make sure only those who met the study criteria were included. The survey site was also set to accept one input from each IP address to avoid the same participants taking it multiple times.

Measures

Attachment style

The Relationship Scales Questionnaire (RSQ) (Griffen & Bartholomew, 1994) was used to measure attachment styles. The RSQ contains 30 items on a 5-point scale, and they were constructed into 4 conceptualized categories of personal attachment styles: secure, preoccupied, fearful, and dismissing. The RSQ has been translated and tested in China, with the preoccupied and the dismissing attachment showing good reliability with Cronbach's alpha values of 0.81 and 0.72 (Ho, Chan, Ma, & Field, 2013).

Coping strategy

The Brief COPE Inventory (BCI) (Carver, Scheier, & Weintraub, 1989) was used to measure individual coping strategy. It has 28 items on a 4-point scale, measuring 14 coping strategies as person's response to a stressful situation or event. The BCI includes 3 categories: emotion-focused coping, problem-focused coping, and dysfunctional coping. The BCI has been translated and tested in China, showing a reliability coefficient of 0.85 (Han et al., 2014).

Social support

Social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988). It contains 12 items that are rated on a 7-point scale, measuring the participants' perceived support from 3 different categories: friends, family, and significant others. The Chinese version of MSPSS has a test-retest reliability of 0.81, and an internal consistency of 0.85 (Huang, Jiang, & Ren, 1996).

Spirituality

Individual spirituality was measured by the Daily Spiritual Experience Scale (DSES) (Underwood & Teresi, 2002). The scale includes total 16 items with higher scores indicating more frequent daily spiritual experience. Six indicators were used for the purpose of model-building in the study, including presence, comfort, harmony, love, touch, and reunion. The Chinese version of DSES demonstrated high internal consistency with a Cronbach's alpha of 0.97 (Ng, Fong, Tsui, Au-Yeung, & Law, 2009).

Parental grief

Parental grief symptoms were measured by the Prolonged Grief Questionnaire-13 (PG-13) (Prigerson et al., 2009). The PG-13 has 13 items on a 5-point Likert scale, with higher scores indicating greater PGD symptomatology severity. The Chinese version of PG-13 was found to have satisfactory psychometric properties, with a Cronbach's alpha of 0.94 (He, Wang, Wei, & Tang, 2013).

Analytical strategy

The proposed statistical model was tested using structural equation modeling (SEM). AMOS 24.0 (IBM) was used to test the model with robust maximum likelihood (MLM). Multiple fit indices were used in model testing, including χ^2, smaller indicates better model fit, should be non-significant; Root Mean Square Error of Approximation (RMSEA), 0.05 indicates good fit, 0.08–0.10 indicates adequate; Goodness of Fit Index (GFI), >0.90 indicates good fit; Comparative Fit Index (CFI), >0.90 indicates good fit; Standardized Root Mean Square Residual (SRMR), <0.10 indicates good fit.

Results

Characteristic of the sample and the study variables

The mean age of participants was 57.9 years old (SD = 6.3). The youngest participant in the study was 55 and the oldest was 77 years old. Female comprised of 65.53% of the participants ($n = 135$) and 34.47% of the participants were male ($n = 71$). Mean years since the death of the child was 4.9 (SD = 4.2), with a range

Table 1. Prevalence of prolonged grief disorder comparison between studies.

Author/year	PGD prevalence	Participants/Nationality	Age
Zheng & Wuest (current study)	35.5%	206/China	$M = 57.0$
Maercker & Znoj, 2010	4.2%	712/Swiss	60–94
Kersting, Brahler, Glaesmer, & Wagner, 2011	4.0%	122/Germany	$M = 44.0$
Goldsmith, Morrison, Vanderwerker, & Prigerson, 2008	11.6% for Whites 21.2% for African-Americans	222/the U.S.	$M = 59$

of 0.5 to 20 years. For 96.60% of the bereaved parents ($n = 199$) in this study, the deceased child was their only one. The reasons for the death included sudden illness ($n = 85$, 41.26%), accident ($n = 61$, 29.61%), chronic illness ($n = 20$, 9.71%), homicide ($n = 8$, 3.88%), suicide ($n = 6$, 2.91%), and other ($n = 26$, 12.62%). The current study found a high prevalence of PGD among the study participants, with 35.5% ($n = 73$) of them meeting the clinical diagnostic criteria. Compared to studies in other countries, the Chinese sample had the highest prevalence rate of prolonged grief (see Table 1) (Goldsmith, Morrison, Vanderwerker, & Prigerson, 2008; Kersting, Brahler, Glaesmer, & Wagner, 2011; Maercker & Znoj, 2010).

Descriptive statistics for the measures in the study are displayed in Table 2. Regarding attachment styles, 22.82% of the participants ($n = 47$) showed secure attachment, 20.87% showed fearful attachment ($n = 43$), 51.94% showed preoccupied attachment ($n = 107$) and 4.37% were in the dismissing attachment category ($n = 9$). The mean score for the emotion-focused coping was 4.27 (SD = 0.97), problem-focused coping was 5.31 (SD = 1.05), and dysfunctional coping was 5.12 (SD = 1.08). In the study, self-blaming ($M = 6.27$), planning ($M = 5.90$), and self-distraction ($M = 5.65$) were most commonly utilized by the study sample. Coping strategies like humor, religion, and substance use were least frequently used by the participants. The study found 47.57% of the participants ($n = 98$) perceived more help came from their families, 20.39% of them perceived more help came from their friends ($n = 42$), and 23.79% of them perceived more help came from significant others ($n = 49$). Among those who met the diagnostic criteria for prolonged grief, 63.59% experienced emotional pain on a daily basis ($n = 131$), 84.47% reported the symptoms of separation distress continued to be elevated at least 6 months after the death ($n = 174$), 75.24% had significant impairment in social, occupational, or other important areas of functioning ($n = 155$).

Correlations were examined to determine the relatedness of the observed variables in the proposed model. The data showed all correlations were less than 0.70, indicating little likelihood of multicollinearity in the sample. In addition, the Mahalanobis D^2 was utilized to test for the presence of multivariate outliers. No outliers were identified in the study sample. The VIF (variance inflation factor) value used was to determine the problem of multicollinearity, variables with high VIF were not included in the model building process.

Table 2. Descriptive statistics and Cronbach's alpha values for the measures ($N = 206$).

	M	SD	Range	Cronbach's α
RSQ	92.37	16.31	43.0–129.0	0.66
BCI	68.02	11.92	31.0–110.0	0.84
MSPSS	48.30	1.17	12.00–84.00	0.90
DSES	31.98	14.95	16.00–94.00	0.90
PGD	32.31	8.98	9.00–45.00	0.90

Note. BCI: brief COPE inventory; DSES: daily spiritual experience scale; MSPSS: multidimensional scale of perceived social support; PGD: prolonged grief questionnaire; RSQ: relationship scales questionnaire.

Model development

The initial measurement model included 5 latent factors measured by 29 indicators. A confirmatory factor analysis was run and indicators with low factor loading were removed. The values of Modification Indices (M.I.) were evaluated to see if any additional paths would improve the model fit by reducing the chi-square value. A model was then specified with 5 factors and 15 indicators: 1) preoccupied, fearful, and dismissing attachment in the attachment style measurement; 2) problem-focused and dysfunctional coping; 3) social support from family and friends; 4) daily spiritual experiences of presence, comfort, love, touch, and reunion; and 5) three items in the parental grief measurement.

The structural model was constructed specifying direct effects from the four factors to parental grief. The model fit indices were $\chi^2 = 155.34(\text{df} = 81, p = .00)$, RMSEA = 0.07, GFI = 0.91, CFI = 0.89, SRMR = 0.07. The Normed χ^2 (ratio between the chi-square and the degrees of freedom) was calculated and the model attained a Normed χ^2 value of 1.92, meeting the good fit criteria of less than 2.0 (Kline, 2015). The model fit indices indicated the structural model showed an adequate model fit to the data.

The current study confirmed four statistically significant direct effects in the structural model: a

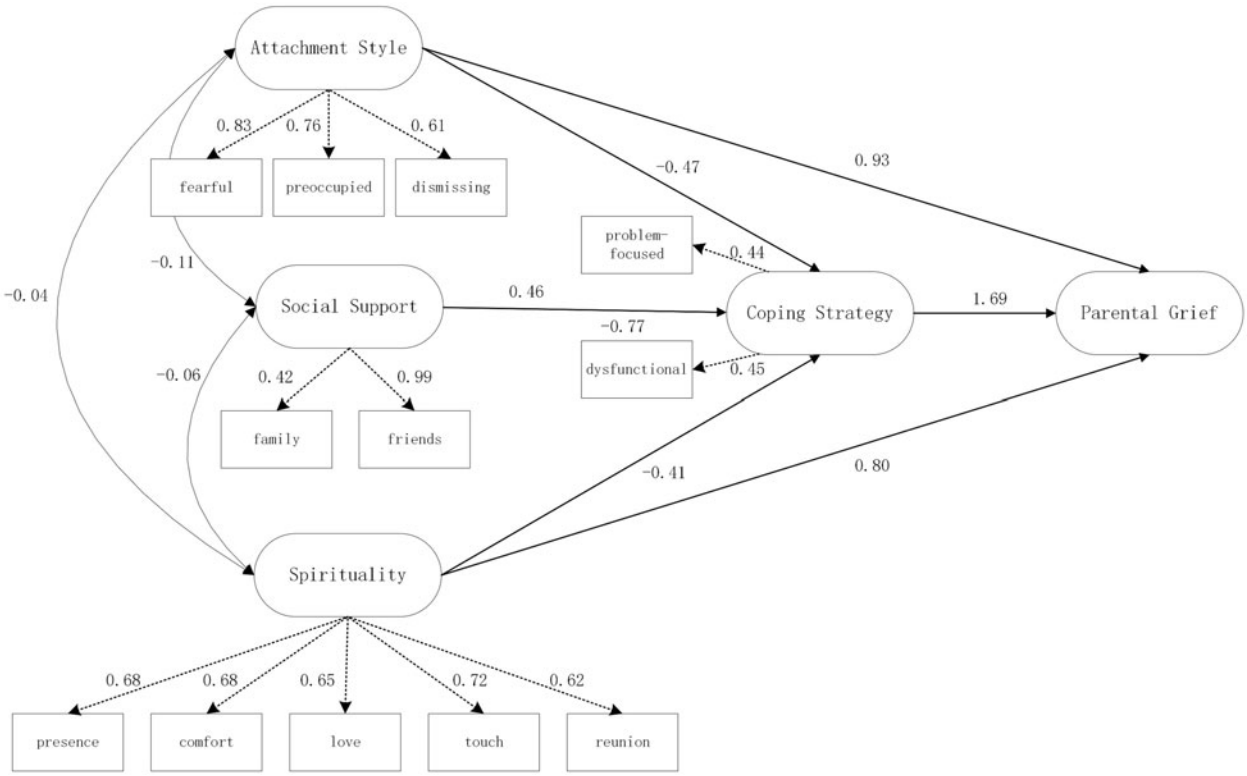

Figure 1. The final structure model with standardized coefficients.

positive effect of attachment style on parental grief ($\beta = 0.93$, $p < .05$), a positive effect of coping strategy on parental grief ($\beta = 1.69$, $p < .05$), a negative effect of perceived social support on parental grief ($\beta = -0.77$, $p < .05$), and a positive effect of spirituality on parental grief ($\beta = 0.80$, $p < .05$). According to Kline (2015), evaluation of the effect is based on Cohen's effect size criteria. Thus, the effects in the current study were considered large.

Covariances between coping strategy and attachment style, social support, and spirituality were found significant ($p < .05$). This pattern of covariances suggested that attachment style, social support, and spirituality change together with coping strategy, and coping strategy might mediate between the other three factors and parental grief. The model was therefore modified and displayed in Figure 1. The model fit indices indicated the final structural model showed an adequate model fit to the data.

The modified final model found none of the total effects in the model were significant but confirmed that the above four statistically significant direct effects remain. Meanwhile, the following statistically significant indirect effects mediated by coping strategy were found: a positive effect of perceived social support on parental grief (0.78, $p < .05$) and a negative effect of attachment style on parental grief (–0.80, $p < .05$). The result confirmed that coping strategy mediated the effect from perceived social support and attachment style to parental grief. The study found coping strategy had no mediating effect between spirituality and parental grief.

Discussion

The present study investigated the relationship between attachment style, coping strategy, social support, spirituality and the severity of parental grief among a group of older parents in China. Expanding upon previous research, the study assessed these factors simultaneously through a statistical model. Further, the mediating effects of coping strategy were examined.

The study found coping strategy, specifically problem-focused and dysfunctional coping, was more likely to be related to higher levels of prolonged grief. The emotion-focused coping strategies were not used frequently by study participants and were thus not included in the model. Most literature in Western culture identified problem-focused coping as adaptive and leading to a better mental health outcome (Lazarus & Folkman,1984), however, the current study's finding is inconsistent with this. It is generally recognized that specific coping strategies are not uniformly effective (or ineffective) across all contexts and situations. Bonanno and Burton (2013) indicated that

individual's coping efficacy is dependent on awareness of contextual demands and responsivity to internal and external feedback. To better understand the relationship between prolonged grief and problem-focused coping in the current study, the cultural and policy context of the older bereaved parents in China must be taken into consideration.

Research found that in a culture which emphasizes harmony and social cohesion, Chinese people are eager to change themselves to fit the environment, mobilize the resources to handle stressful situations, and use social means to gain control of the external environment (Spector, Sanchez, Siu, Salgado, & Ma, 2004). Older bereaved parents in China were found to organize, advocate, and protest for better services (Zheng, Lawson, & Head, 2017), which could be related to problem-focused coping. Cultural context can also explain why emotion-focused coping was not significant to study participants. Chinese culture devalues expressing intense emotions of grief since it is considered hazardous to people's health and harmonious interpersonal relationships (Chow, Chan, & Ho, 2007). Research suggests without the use of emotional coping, problem-focused coping may not lead to a positive psychological outcome (Holahan & Moos, 1987).

The death of an adult child is viewed as a particularly tragic situation in Chinese culture since it deprives parents of the continuation of their heredity. The failure of passing on the family names, as a cultural stigma, creates profound stress on the bereaved older parents; sometimes leading to remarriage and adoption in attempts to reconstruct their parental identity (Zheng & Lawson, 2015). In China, it is difficult for bereaved older parents to access resources they need as they age because of the one-child family mode and legislation designating an adult child's responsibility to be the main caregiver to their parents. They therefore face a reality in which neither the deceased child nor the government is available to provide legitimate care in their old age (Zheng et al., 2017).

Coping strategy is considered to likely mediate the relationship between interpersonal and intrapersonal variables (Stroebe, Folkman, Hansson, & Schut, 2006). The current study confirmed competitive meditating effects of coping strategy, where the mediated effect and direct effect are in opposite directions (Zhao, Lynch & Chen, 2010); in this case, specifically the direct effect from attachment style to parental grief was positive, while the mediated effect was negative; the direct effect from social support to parental grief was negative, while the mediated effect was positive.

The study found that participants who showed more insecure attachment style had more symptoms of prolonged grief. The result is consistent with previous research, however, existing literature primarily focused on younger bereaved parents' attachment style (Wijngaards-de Meij et al., 2007), lacking evidence from older parents. Research found that insecure attachment may increase with age based on the serious adverse life experiences (Schachner, Shaver, & Gillath, 2008). In addition, aging highlights the shift from children depending on their parents, to parents needing to rely more heavily on their children, particularly in times of illness or disability. Unlike younger bereaved parents, older parents are beyond childbearing age and increasingly aware of dependency and mortality. Death of an attachment figure, such an adult child, particularly if that is their only child, means the attachment needs of the older parents are more difficult to be secured, resulting in higher levels of prolonged grief as the current study found. Research revealed that coping strategies are an important meditator of the relationship between insecure attachment and grief reactions (Delespaux, Ryckebosch-Dayez, Heeren, & Zech, 2013). The current study confirmed the existence of this mediating effect.

The current study revealed that perceiving less social support from family and friends leads to more severe parental grief, which is consistent with existing research (Scheidt et al., 2012). Although social support is generally considered beneficial for the bereaved, research also found increased social isolation after the death of a child (Collins et al., 2016). More research is needed to explore specific kinds of support needed to improve health outcomes for bereaved parents in their cultural context. Research found bereaved parents turned to fellow bereaved peers for support, believing that their losses were arguably more difficult for family and friends to understand or empathize with (Zheng & Lawson, 2015). Research supports the role of coping strategy mediating between social support and mental health outcomes (Wang & Gan, 2011). The current study confirmed the existence of a mediating effect of coping strategy in relation to social support and parental grief.

The study found that parents who had more daily spiritual experiences tended to have higher levels of PG. This result revealed the spiritual struggles of bereaved older Chinese parents and adds another piece to the inconsistency about spirituality's role in

post-traumatic psychological outcomes as presented in existing research (Wortmann & Park, 2008). Since the current study did not support the role of coping strategy as a mediator between spirituality and parental grief, more research is needed to explore this dynamic.

The primary limitations of this study include the selection bias inherent in the sampling and data collection procedures used. The deliberate use of a sample of individuals who have been reaching out to online mutual support groups has excluded those who have not reached out for this kind of assistance. The online survey method may have altered the responses obtained, threatening the study's internal validity. Future research is needed to test the model with different populations in order to explore the differences between them. In addition, future research could utilize a prospective longitudinal design and a larger sample to test the relationship of the factors and parental grief over time and to gain a more comprehensive understanding of older bereaved Chinese parents' grief.

Some of the foundational in the field of grief research assumptions have been questioned due to lack of empirical validation (Wortman & Silver, 2001). The current study uses a sophisticated quantitative method to examine the factors related to parental grief. This study contributes to the knowledge base regarding the particular population of older bereaved Chinese parents. Investigating and understanding multiple factors is critical for mental health professionals to design and improve the effectiveness of their interventions with this population. With life expectancy significantly increasing in China, more older adults are likely to experience the death of their adult child. This situation creates an urgent need for more attention to the issue on micro, mezzo, and macro levels. Findings of this study raise timely and relevant questions about how to support older parents in the Chinese cultural and societal context. For this hidden population, changes need to happen on multiple fronts; services targeting their personal coping strategies that alleviate grief, optimized social support involving peers, and policies created to provide medical, long term care, and financial support. Recognition of this forgotten population and reducing the cultural stigma of childlessness would enable these older adults to be re-integrated as valued members of Chinese society. Overall, this study may serve as a baseline to critically evaluate policy implications and develop further measures to address the bereaved older parents' psychosocial needs.

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