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**GRANDPARENTS RAISING GRANDCHILDREN: INVESTIGATING FACTORS
ASSOCIATED WITH DISTRESS AMONG CUSTODIAL GRANDPARENTS**

ABSTRACT

The aim of the current study was to explore the relationship between the psychological health of grandparents raising grandchildren, and those grandchildren's social, emotional and behavioural issues. The study also assessed the relationship between psychological well-being in grandparents and access to informal social support. The sample comprised 100 grandparents who were raising grandchildren. Regression analyses revealed that grandparents caring for grandchildren with abnormal emotional and hyperactive symptoms scored higher on measures of anxiety, stress, and depression, and were more likely to report less life satisfaction. Grandparents with greater access to informal support experienced less depression, although greater access to informal social support did not lessen the impact of raising grandchildren with social, emotional, or behavioural issues. Implications for intervention and policy are discussed.

Key words: Grandparents, grandchildren, caregiving, well-being

Custodial grandparents – adults who care for their grandchildren on a full-time basis – are becoming an increasingly common arrangement in Western cultures. While the exact prevalence of custodial grandparenting in Australia is difficult to determine (owing both to reticence of grandparents to report and ambiguity surrounding the range of these formal and informal arrangements in 2012 nearly 41,000 children and young people in Australia were the subject of care-and-protection orders issued by child protection authorities (Australian Institute of Health and Welfare, 2012). More than half of these children and young people were placed in home-based care environments, which consisted mainly of grandparents. The Australian Bureau of Statistics, in 2006, estimated that there were between 8,050 and 63,520 grandparent-headed families, a wide variance attributable to myriad definitions that could be used to define this population (Brennan *et al.*, 2013). While exact statistics are difficult to determine, these numbers are increasing. Examining only formally-recognised out-of-home care placements in Australia, in 2001 approximately 38% (n=6,940) of Australian children in out-of-home care were placed with relatives. By 2011, this number had risen to 55% (n=10,407) of all out-of-home care placements (Australian Institute of Health and Welfare, 2012). Though these statistics refer specifically to kinship care arrangements (defined as a situation in which a child is placed under the care of a relative or close family friend), several authors (e.g., McHugh, 2004; Nandy & Selwyn, 2011) have noted that the prevalence rate of *grandparent*-headed families tends to rise and fall as a function of total *kinship* care arrangements.

These statistics tend to reflect only those child-caring arrangements which are the subject of a formal parenting or consent order from the Federal Circuit Court of Australia or Federal Magistrates Court. There is also acknowledged a large population of *informal*

grandparent-headed households for which no state or territory children's court order is in place. It has been estimated that the ratio of informal to formal kinship caring arrangements (via court order or judgement) is approximately three to one (Smyth & Eardley, 2008), suggesting that for most grandparents these caring arrangements occur independently of a legal framework to protect their status as a carer. This has profound implications for grandparents seeking to access systems of services or benefits, with informal kinship carers generally being less able or likely to access public systems of support (Smyth & Eardley, 2008).

Stresses associated with raising a grandchild

Studies exploring the personal, interpersonal, and economic consequences visited upon custodial grandparents have consistently demonstrated worse outcomes when compared both to grandparents who are not the primary carers of their grandchildren, and to custodial parents (Brennan *et al.*, 2013; Burton, 1992; Dunne & Kettler, 2008). Stress has been identified as a key problem among custodial grandparents (Lumpkin, 2008; Sands & Goldberg-Glen, 2000), related both to practical considerations associated with parenting a child (e.g., demands of re-parenting; difficulties navigating the academic system on behalf of the child; lifestyle changes; loss of autonomy), and to situational factors related to the circumstances of the custodial grandparent arrangement (e.g., conflict with the child's birth parents and other family members; lack of understanding of legal issues).

Several studies (e.g., Brennan *et al.*, 2013; Council on the Ageing, 2003) have pointed to concerns regarding role confusion as a source of stress among custodial grandparents and, in particular, concerns regarding the extent to which taking on the role of a primary caregiver conflicts with their capacity to act in the role of grandparent to their grandchild. This conflict

is explored within Merton's (1957) Role Theory, which posits that when a person is expected to simultaneously fill multiple roles that carry contradictory expectations, psychosocial distress can arise.

Compared to other family types in Australia, grandparent-headed households are significantly more likely to experience financial disadvantage. In his analysis of the Household, Income, and Labour Dynamics in Australia (HILDA) survey for families headed by grandparents, Brandon (2004) noted that the annual yearly household income of grandparent-headed households was \$20,752, compared to the annual yearly income of \$61,833 for parent-headed households. Much of this economic disadvantage stems from the tendency of grandparents to be less likely employed than either foster carers or the general population of parents with children. In 2003, the Australian Bureau of Statistics reported that a little over one-third of custodial grandparents were employed, with the remaining two-thirds being in receipt of a government benefit or pension as their main source of income (Australian Bureau of Statistics, 2004). Where financial and social supports are available, research has suggested that custodial grandparents commonly feel ill-informed by government agencies as to which government benefits they are eligible to receive (Fitzpatrick & Reeve, 2003; Lumpkin, 2008; Orb & Davey, 2005). Additionally, some grandparents have been reported to be reluctant to ask for help out of fear that if they are perceived as unable to cope, child protection agencies will remove the grandchildren (Council on the Ageing, 2003; Wellard, 2010).

Despite the lack of national data pertaining to the key reasons why children are placed in grandparent care, the literature indicates that this decision is usually made due to the parents' capacity (or incapacity) to provide adequate care for their children (Dunne & Kettler,

2008; Edwards & Mumford, 2005). Consequently, children placed in the care of their grandparents are much more likely to have experienced early trauma, hardship, and/or deprivation than are children who remain in the care of their parents. Heflinger, Simpkins, and Combs-Orme (2000) report that 34% of children in state care in the United States have behaviour problems as defined by the Child Behaviour Checklist (CBCL, Achenbach & Rescorla, 2001), a finding replicated by Shore, Sim, Le Prohn, and Keller (2002) among a sample of United States (US) children in kinship care. This prevalence rate for behavioural problems is far higher than the 3% prevalence for the US national normative sample for each scale on the CBCL (Achenbach & Rescorla, 2001). Unsurprisingly, there is a strong association between reported custodial grandparental distress and their grandchild's reported behaviour (Smith & Hancock, 2010; Smith & Palmieri, 2007). Dunne and Kettler (2008) found in a sample of 52 Australian custodial grandparents, a strong inverse relationship between psychological well-being and their grandchildren's scores on the Strengths and Difficulties Questionnaire (Goodman, 1997). Grandparents who were raising grandchildren with emotional symptoms or conduct problems were much more likely to experience greater levels of depression, anxiety, and stress.

Social isolation and inadequate social supports are significant problems for custodial grandparents. Many grandparents report that taking on full-time responsibility for their grandchildren results in social isolation from their same-aged peers (Kelley, Yorker, Whitley, & Sipe, 2001); and grandparents raising grandchildren with emotional, behavioural, or learning problems are particularly at risk for inadequate social support (Emick & Hayslip, 1999). Yardley, Mason, and Watson (2009) found, across a series of interviews with kinship carers in Australia, 60% of respondents reported that they discovered themselves with less

time for their own interests, while 45% reported that they experienced deterioration in their available time to connect with friends. While this finding is itself troubling, it is particularly worrying in light of research by Gerard, Landry-Meyer, and Roe (2006) which found that, among a sample of 133 custodial grandparents in the United States, psychological well-being was strongly associated with accessing systems of support. This research further found that formal support (e.g., support from community agencies and the child welfare system) buffered the psychologically negative impact of raising grandchildren with physical and mental health problems.

Health consequences associated with raising a grandchild

Perhaps unsurprisingly, numerous health consequences have been linked with grandparents who assume full-time responsibility of their grandchildren (Hayslip, Shore, Henderson, & Lambert, 1998; Minkler, Fuller-Thomson, Miller, & Driver, 1997; Sands & Goldberg-Glen, 2000). Importantly, research has found that the health disadvantages found among grandparent caregivers arise from grandparents' characteristics, rather than as a consequence of providing care (Hughes, Waite, LaPierre, & Luo, 2007). Brennan *et al.* (2013) point out that the poorer health outcomes for custodial grandparents may be better understood in the context of grandparents' relatively older ages when compared with other groups caring for children. This observation is consistent with available research that suggests that many of the health concerns reported by custodial grandparents tend to be age-related issues, such as hypertension, arthritis, and physical exhaustion (Dunne & Kettler, 2008; Yardley et al., 2009). These findings are particularly worrying in light of the existing psychosocial stresses associated with acting as a custodial grandparent; declining health may further undermine the capacity of custodial grandparents to cope with the stresses and

demands of parenting, exacerbating and entrenching these concerns. Additionally, research has suggested that, when compared to other parent groups, custodial grandparents tend to downplay or ignore any physical or emotional distress, rather than address it (Minkler, Roe, & Price, 1992). Wellard (2010) reported that in one focus group of 12 custodial grandmothers, several participants stated that they were reluctant to ask for help when they were unwell, due to concerns about being perceived as being unable to care for their grandchild.

In addition to physical health concerns, a plethora of studies have shown that custodial grandparents are more likely to suffer from a decline in mental health attributable to their parenting experiences (Dunne & Kettler, 2008; Hayslip et al., 1998; Horner, Downie, Hay, & Wichmann, 2007; Minkler *et al.*, 1997; Sands & Goldberg-Glen, 2000). Kelly *et al.* (2000) found that, among a sample of 102 custodial grandparents in the US, 30% evidenced psychological distress necessitating psychological intervention. In Australia, Dunne and Kettler (2008) reported that a sample of 52 custodial grandparents in Australia identified significantly higher levels of depression, anxiety, and stress on the Depression, Anxiety, and Stress Scales (DASS-21; Lovibond & Lovibond, 1995) than did an age-matched sample of 45 non-custodial grandparents.

While these mental health consequences may be attributable to the stresses inherent in this parenting arrangement, it is notable that in spite of these research findings, many studies report that grandparents frequently describe their custodial role as a *protective* factor, insulating them from other stress that may precipitate psychological distress. Burton (1992) notes that among 60 custodial grandparents interviewed, 89% indicated that they would re-enter the custodial arrangement if they were confronted with the choice again. Qualitative

analysis of these interviews suggests that grandparents from this sample appreciated the opportunity to preserve and pass on their cultural and traditional values, while still allowing their grandchildren to “belong” to their birth family. Similar findings were reported by Spence (2004): in a series of qualitative interviews with a sample of 11 kinship carers in Australia (of whom 7 were custodial grandparents), all participants reported elevated stress owing mainly to role confusion, financial distress, and a perceived lack of social support associated with their parenting experience. In spite of these concerns, participants still widely reported a perceived psychological benefit arising from their decision to bring the child under their care, with only one participant reporting that they had been reluctant to take on full-time care of their children.

To help chart the interrelationship of factors that may precipitate or help alleviate custodial grandparental distress, Smith *et al.* (2008) described a modified version of the Family Stress Model (FSM; Conger *et al.*, 2002). Within this model, psychological distress among custodial grandparents is described as a function of the health, education, income and levels of family and social support of the custodial grandparent. Thus, psychosocial distress among grandchildren is conceptualised as being positively related with grandparental psychological distress, suggesting that the negative psychosocial health consequences associated with being a grandchild in this parenting arrangement could potentially be ameliorated by reducing psychological distress among custodial grandparents. It is important to note, however, that the relationship between psychological distress among custodial grandparents and behavioural problems among grandchildren is not likely to be simple or unidirectional. While the circumstances that precipitate these parenting arrangements are varied, these circumstances are frequently stressful for both grandparent and grandchild, and

any impact on either group's psychological well-being is best conceptualised within the broader context of a disrupted, three-generational family. Any model that attempts to account for factors that predict or explain the psychological well-being of grandparent or grandchild would need to include situational factors related to the circumstances of the parenting arrangement itself, as well as factors related to the birth parent (e.g., mental health; continued contact with their child; substance issues).

Interventions for custodial grandparents

Though publicly-funded state and federal psychological interventions designed to assist custodial grandparents are virtually non-existent in Australia (APS, 2014), a number of notable interventions have been described in the literature. Project Healthy Grandparents, an initiative sponsored by the Georgia State Library, has produced a series of studies describing a structured treatment plan designed to provide psychological counselling in addition to medical assessment, legal advice, and advice concerning accessing public assistance for custodial grandparents (PHG; Kelley & Whitley, 2003; Kelley, Yorker, Whitley, & Sipe, 2001; Whitley, White, Kelley, & Yorker, 1999). Additionally, several treatment approaches have been described to assist custodial grandparents in developing parental skills for their grandchild such as the Grandparent Triple P program (GTP; Kirby & Sanders, 2014) and the Parental Skills/Psychosocial Skills Training Program (PSPSTP; Hayslip, 2003). Interventions designed to improve custodial grandparental parenting skills are especially pertinent in light of research that posits a significant positive relationship between grandchild behaviour and custodial grandparental distress (Smith *et al.*, 2008). If custodial grandparents are provided with parenting strategies to assist with correcting problematic grandchild behaviour, grandparental distress will be ameliorated.

The practical challenges encountered by grandparents raising their grandchildren, and the support needs they require, were recently the subject of an Australian Senate community affairs inquiry paper authored by the Australian Psychological Society (Australian Psychological Society, 2014). In addition to summarising the available body of research, which suggests that acting as a custodial grandparent generally results in greater stress and poorer health and mental health outcomes for carers, the report highlights the relative dearth of literature concerning the factors that mediate the relationship between acting as a custodial grandparent and poorer mental health outcomes (Australian Psychological Society).

This is important as it has been forecast that, if social policies remain unchanged in Australia, there will be an estimated 17.5% increase in the demand for kinship placement services by 2015-2016 (Department of Human Services, 2005). Custodial grandparents are a growing demographic according to the Australian Bureau of Statistics (1998; 2004; 2008), and they experience a unique set of financial and social needs (Edwards & Mumford, 2005). The APS report points out that present Australian policy and legislation have arisen largely ignorant of the specific health demands of this population, and we can expect this problem to compound as more and more custodial grandparents attempt to access systems of formal and informal support (Australian Psychological Society, 2014). Further research is needed to ensure that whatever support is made available in coming years is appropriately matched to the needs of custodial grandparents in Australia.

The present research

Recent research has found that custodial grandparents reported statistically significant higher levels of depression, anxiety, and stress, as compared to non-custodial grandparents (Dunne & Kettler, 2008), and the present research was conducted with the primary aim of

expanding on these findings in order to determine what factors mediate this relationship. In this way, the treatment and service needs of Australian custodial grandparents can be better understood, thereby helping to advise interventions for this group.

Based on previous research, it was hypothesised that grandparents who are the primary carers of grandchildren with emotional and/or behavioural problems will report higher levels of distress, and will report lower levels of life satisfaction when compared to grandparents who are the primary carers of grandchildren without emotional or behavioural problems. It is further hypothesised that grandparents who are the primary carers of grandchildren with emotional and/or behavioural problems, and who report that they have adequate systems of social support, will report lower levels of distress and higher levels of life satisfaction when compared to grandparents who report that they have inadequate systems of social support.

METHOD

Participants

Characteristics. A total of $N = 100$ grandparents participated in this study. The mean age of the participants was 63.14 ($SD = 7.69$) years of age, with a range between 42 and 80 years. Grandparents had an average of 1.61 ($SD = 1.04$) grandchildren in their care, with the number of children ranging from 1 to 5. The mean age for the grandchildren was 9.48 years-old ($SD = 4.53$). The grandchildren had been in the care of their grandparents for an average of 78.22 months (6.52 years) ($SD = 53.81$ months), ranging from 1 month to 17 years. Further participant characteristics can be seen in Table 1.

Table 1.

Measures

Recruited custodial grandparents completed all measures contained within the survey pack. The survey pack consisted of a consent form and five questionnaires: (i) Depression, Anxiety, and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995); (ii) The Eyberg Child Behaviour Inventory (ECBI; Eyberg & Ross, 1978); (iii) The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997); (iv) The Multidimensional Scale of Perceived Social Support (MSPSS, Zimet, Dahlem, Zimet, & Farley, 1988); and (v) The Satisfaction with Life Index – Form A (LSA-A; Neugarten, Havighurst, & Tobin, 1961). Demographic information was collected via a telephone interview, which preceded the completion of all administered measures. In the following descriptions, 'parent' refers to the child's caregiver (typically the grandparent).

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995). The DASS-21 is a 21-item measure designed to assess an individual's distress and psychological adjustment (Lovibond & Lovibond, 1995). The DASS-21 consists of three 7-item subscales measuring the negative emotional states of depression, anxiety, and stress. Participants rate each item on a 4-point Likert scale, with responses ranging from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time) as the item has applied to them over the past week. No items on the DASS-21 are reverse-scored. To calculate total composite scores, scores are multiplied by two, and range from 0 to 42 for each subscale. Higher scores on the subscales indicate a greater number of associated negative symptoms. In the current study the Cronbach's alpha for the subscales were as follows; .92 for depression, .88 for anxiety and .92 for stress.

Eyberg Child Behaviour Inventory (ECBI; Eyberg & Ross, 1978). The ECBI is a 36-item parent-rated scale of conduct and behavioural problems for children aged 2-16 years old. Parents rate the frequency of the child's behaviour on a 7-point Likert scale, ranging from 1 (never) to 7 (always), to yield the Intensity score. Parents also indicate on a dichotomous yes-no scale whether or not the behaviour is currently a problem, yielding the problem score. No items on the ECBI are reverse-scored. Scores for the intensity scale range from 36 to 252, and from 0 to 36 for the problem scale. Higher scores on each scale reflect higher levels of perceived behavioural problems. The raw scores for both scales can be converted to t-scores, with t-scores above 60 indicating clinical significance. In the current study, Cronbach's alpha was .96 for the intensity scale and .93 for the problem scale, indicating excellent internal consistency.

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The SDQ is a 25-item parent report scale designed to identify behavioural and emotional problems in school-aged children. Two versions of the SDQ were used in the current study: one for children aged 4-10 years, and one for ages 11-17. The measure is divided into 5 domains consisting of 5 items each: emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behaviour. The SDQ also provides a total difficulties score, which is the sum of the scales with the exception of the prosocial scale. For the purposes of this paper, the prosocial scale and the total difficulties score were excluded. Items are rated on a 3-point scale ranging from 0 (not true) to 2 (certainly true), and items 7, 11, 14, 21, and 25 are reverse-scored. Scores for each subscale range from 0 to 10, with scores between 4-10 on the conduct and peer problems scales considered within the abnormal range. Scores between 5-10 and 7-10 fall in

the abnormal range for the emotional symptoms and hyperactivity scales respectively.

Cronbach's alpha for the SDQ in the current study is .78, indicating good reliability.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988). The MSPSS is a brief self-report measure of perceived adequacy of social support from significant others, family, and friends (Zimet *et al.*, 1988). The 12-item measure consists of 3 subscales measuring social support from friends (4 items), family (4 items), and significant others (4 items). Responses are measured on a 7-point Likert scale, with responses ranging from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree). Total scores for each subscale range from 4-28 and from 12-84 for the global support score, with higher scores indicating a higher degree of perceived social support. No items on the MSPSS are reverse-scored. For the current study, the Cronbach's alpha coefficients for the subscales ranged from .92 to .95, and was .94 for the total score, indicating excellent reliability.

Satisfaction with Life Index- Form A (LSI-A; Neugarten, Havighurst, & Tobin, 1961). The LSI-A is designed to measure psychological well-being in older adults. Adams' (1969) shortened version of the LSI-A, consisting of 18 of the original 20 items, is used in the current paper. The LSI-A is measured on a 3-point scale, with participants indicating 1 (Agree), 2 (Unsure) or 3 (Disagree) to signify the extent each of the 18 statements applies to them. Scores range from 0-36, with higher scores indicating greater perceived life satisfaction. Items 3, 5, 7, 10, 15, 16 and 18 are reverse-scored. In the current study, the Cronbach's alpha for the LSI-A is .85, indicating excellent internal consistency.

PROCEDURE

Ethical approval for the current study was obtained through the researcher's Human Research Ethics Committee. Following this, grandparent support groups across Australia were contacted via email or telephone. Support group leaders were emailed the study's explanatory statement and a flyer advertising the study, which they were invited to give to their group members. Grandparent support groups also were invited to publish the content of the flyer in their newsletters, or to mail the flyer directly to their members. Periodicals targeted at seniors were also contacted, and invited to run an article discussing the research. An advertisement for the study was also purchased in the *Gold Coast Sun* newspaper. Once contact was made with the researchers, participants were either mailed or emailed the explanatory statement; this briefed them on the nature and aim of the research, and informed them of their assured anonymity and right to withdraw at any time without penalty. Following informed consent, participants were then recontacted to arrange a time and date for a 45-to-60-minute phone interview. The interview consisted of 28 questions with regards to the grandchildren and the questions about the grandparents themselves. Researchers read from a set script to ensure consistency, deviating only when clarification was needed. Following completion of the interview, participants were mailed a questionnaire booklet, a gift card, and a reply-paid envelope. Each questionnaire booklet contained the DASS-21, the LSI-A, and the MSPSS. Depending on the number of grandchildren and their ages, participants were also sent the ECBI and the SDQ. Participants completed the child mental health measures for each of their grandchildren. Upon completion of the questionnaire booklets, participants were requested to return the measures to the researchers by post.

RESULTS

A series of bivariate correlations were conducted to assess the univariate relationships between psychological well-being and the predictor variables. Hierarchical regression analyses were performed to assess the predictive utility of demographics, child mental health, and social support, in relation to grandparents' psychological well-being. As the SDQ and the ECBI were completed by participants for between one and three children, scores were appraised for the number of grandchildren rated as being within the clinical range, as opposed to using total scores on the measures.

Bivariate correlations

Table 2 displays the univariate relationships between each of the key study variables. Participant age positively correlated with life satisfaction and social support from family and friends, and negatively correlated with stress. Older participants experienced greater life satisfaction and support from family and friends, and less stress, as compared to younger participants. Relationship status was positively correlated with household income, life satisfaction, and experience of social support, indicating that grandparents with a partner have a greater annual income, are more satisfied with life, and report more social support compared to grandparents without partners. Household income shared a negative correlation with anxiety and depression, and a positive relationship with social support. Relative to higher-income participants, individuals with less income were more likely to experience depression and anxiety, and had less social support.

Table 2.

Depression, stress, and anxiety were positively correlated, and were also positively correlated with child emotional symptoms. Depression, stress, and anxiety also correlated negatively with life satisfaction and with all three measures of social support. Stress also shared a positive correlation with child hyperactivity. Life satisfaction correlated negatively with child hyperactivity, and positively with all three measures of social support. Consequently, grandparents who indicated higher emotional and hyperactivity problems for children reported more depression, stress, anxiety, and dissatisfaction, compared to grandparents who identified less behavioural difficulties.

Hierarchical regression analyses

The results of the hierarchical regression analyses are presented in Tables 2 to 5. Some violations of assumptions were found. The sample size for regression analyses was small, requiring some caution in interpretation of results. Random missing values were corrected using expectation maximisation method, while non-random missing data were excluded from the regression using pairwise correction. Following pairwise correction, the total number of participants included in the analysis ranged from 77-100. Four hierarchical analyses were conducted, with the psychological well-being factors – depression, anxiety, stress, and life satisfaction – being the outcome variables. For all four regressions, the order of entry of the predictors was: step 1 – age, relationship status, and household income; step 2 – emotional symptoms, conduct problems, hyperactivity, peer problems, ECBI intensity, and ECBI problem; step 3 – significant other, family and friends.

Table 3

Table 4

Table 5

Table 6

In the first hierarchical regression analysis, the variables were assessed in terms of their predictive utility in relation to depression. At step 1 of the regression analysis, age, relationship status, and income significantly accounted for 10.7% of the variance in depression, $R^2 = .11$, Adjusted $R^2 = .07$, $F(3, 72) = 2.89$, $p = .041$. At step 2, the inclusion of the six child-behaviour variables explained an additional 18% of variance in depression after the demographic variables were controlled for, $R^2\Delta = .18$, $F\Delta(6, 66) = 2.78$, $p = .018$. At step 3, the three social-support scales were entered into the equation and explained an additional 16.1% of the variance in depression after all other variables were controlled for, $R^2\Delta = .16$, $F\Delta(3, 63) = 6.11$, $p = .001$. With the demographic variables, child behaviour measures, and perceived social support all entered into the regression equation, the model as a whole significantly explained 44.8% of the variance in depression, $R^2 = .45$, Adjusted $R^2 = .34$, $F(12, 63) = 4.26$, $p < .001$. In the final model, higher levels of depression were associated with having grandchildren in the clinical range for emotional problems, fewer children in the clinical range with conduct problems, and reporting less social support from family and friends.

The second hierarchical regression analysis assessed the predictive utility of the study variables in relation to anxiety. At step 1, demographic variables accounted for 7% of the variance in anxiety, $R^2 = .07$, Adjusted $R^2 = .03$, $F(3, 72) = 1.84$, $p = .147$. At step 2, the entry of child-behaviour variables explained an additional 12% of variance when demographic variables were controlled for, $R^2\Delta = .12$, $F\Delta(6, 66) = 1.60$, $p = .161$. At step 3, the three social-support scales were entered into the equation, and explained an additional 9% of the variance in depression after all other variables were controlled for, $R^2\Delta = .09$, $F\Delta(3, 63) =$

2.58, $p = .062$. With all variables entered into the regression equation, 27.8% of the variance in anxiety was significantly accounted for by the demographic variables, the child behaviour measures, and perceived social support, $R^2 = .28$, Adjusted $R^2 = .14$, $F(12, 63) = 2.02$, $p = .037$. In the final model, higher levels of anxiety were associated with having grandchildren in the clinical range for emotional problems.

The third hierarchical regression assessed the predictive utility of the variables in relation to stress. At step 1 of the regression analysis, age, relationship status, and income significantly accounted for 10.3 % of the variance in stress, $R^2 = .10$, Adjusted $R^2 = .07$, $F(3, 72) = 2.74$, $p = .049$. At step 2, the inclusion of the six child-behaviour variables in the model significantly explained an additional 19.9% of variance in stress, $R^2\Delta = .20$, $F\Delta(6, 66) = 3.13$, $p = .009$. At step 3, perceived social support from a significant other, family, and friends was entered into the equation and explained an additional 9.6% of variance in stress after all other variables were controlled for, $R^2\Delta = .01$, $F\Delta(3, 63) = 3.33$, $p = .025$. With all variables entered into the regression equation, the model as a whole significantly explained 39.7% of the variance in stress, $R^2 = .40$, Adjusted $R^2 = .28$, $F(12, 63) = 3.46$, $p = .001$. In the final model, higher levels of stress were associated with having grandchildren in the clinical range for emotional problems, while having children in the clinical range for conduct problems was associated with less stress.

In the fourth hierarchical regression analysis, the variables were assessed in terms of their predictive utility in relation to life satisfaction. At step 1 of the regression analysis, age, relationship status, and income significantly accounted for 16.9% of the variance in life satisfaction, $R^2 = .17$, Adjusted $R^2 = .13$, $F(3, 72) = 4.87$, $p = .004$. At step 2, the four SDQ scales and the two ECBI scales explained an additional 13.9% of variance after the

demographic variables were controlled for, $R^2\Delta = .14$, $F\Delta(6, 66) = 2.20$, $p = .053$. At step 3, the three social-support scales were entered into the equation; these explained an additional 10.5% of the variance in life satisfaction after all other variables were controlled for, $R^2\Delta = .11$, $F\Delta(3, 63) = 3.73$, $p = .016$. With the demographic variables, child behaviour measures, and perceived social support all entered into the regression equation, the model as a whole significantly explained 41.2% of the variance in life satisfaction, $R^2 = .41$, Adjusted $R^2 = .30$, $F(12, 63) = 3.68$, $p < .001$. In the final model, greater life satisfaction was associated with fewer grandchildren within the clinical range for hyperactivity problems.

DISCUSSION

The present study was conducted with the aim of quantifying the relationship between distress and being a custodial grandparent. Consistent with previous research, a significant minority of custodial grandparents reported levels of distress in the clinical range, with 26.7% reporting moderate to severe depression, 23.3% reporting moderate to severe anxiety, and 25.6% reporting moderate to severe stress according to scores obtained on the DASS-21. The magnitude of this reported distress is similar to that reported by previous Australian studies (e.g., Dunne & Kettler 2008). Additionally, a significant minority of custodial grandparents reported that their grandchild had emotional or behavioural problems, reporting that their grandchild had abnormal (high) levels of emotional problems (23%), conduct problems (25%), hyperactivity (29%), or abnormal (high) levels of peer problems (23%) according to scores obtained on the SDQ. Though previous studies have demonstrated that children placed with custodial grandparents experience significant social and emotional issues (Dunne & Kettler, 2008; McHugh & Valentine, 2011), few published studies have explored what *specific* forms this grandchild distress may take. Among the present sample, identifiable

problems were found among all four assessed domains and in approximately equal proportions. Approximately one quarter of grandchildren within this sample presented with a problem in the abnormal range from any domain.

Hierarchical regression analysis confirmed the study hypotheses: parenting grandchildren in the clinical range for emotional problems was associated with higher levels of grandparental depression, anxiety, and stress. Additionally, having a child in the clinical range for hyperactivity was associated with lower overall life satisfaction. Consistent with the second hypothesis, reporting less social support from family and friends was associated with higher levels of grandparental depression, anxiety, and stress. Interestingly, having a grandchild in the clinical range for conduct problems was associated with lower levels of grandparental depression, as well as lower levels of stress however it is unclear why this would be the case. It is possible that parenting a child with challenging behaviours is perceived differently than parenting a child exhibiting emotional deficits or that there are greater social supports and professional services for overt conduct behaviours compared to psychological trauma. Further qualitative research is required in order to investigate this relationship further.

Implications

Both the rates of grandparental distress, and of grandchild behavioural and emotional problems, are higher in all measured categories than the population norms reported by the authors of the DASS-21 (Lovibond & Lovibond, 1995) and the ECBI (Eyberg & Ross, 1978). Findings that custodial grandparents experienced higher than average psychosocial distress, and that grandchildren in such parenting arrangements experience a greater frequency of emotional and behavioural problems than the normative population, are consistent with other

research in Australia (Brennan *et al.*, 2013; Dunne & Kettler, 2008); this comprises, in part, the impetus for the Senate inquiry into grandparents who are the primary carers of their grandchildren (APS, 2014). The finding that behavioural and emotional problems among grandchildren are associated with increased emotional distress among custodial grandparents suggests that grandparents may have difficulties coping with their grandchildren's emotional or behavioural concerns.

This problem is potentially compounded by the reality that custodial grandparents may have poor access to appropriate support and services to assist with mental health or behavioural issues with their grandchild. In a series of interviews reviewing the support needs of custodial grandparents, the Council on the Ageing (2003) reported that speciality therapist services in Australia were "limited or non-existent", a problem which was particularly significant for grandparents living in rural and regional areas. Spence (2004) reinforces these findings by pointing out that Australian government policy favours the understanding that children are best placed in kinship caring arrangements when child-caring services are required, but that this understanding is not supported by services focused on the unique needs of this particular caregiver group. This has been maintained, in part, by a general paucity of research concerning the mental health needs of custodial grandparents and their grandchildren. It is our hope that studies such as this can help to underscore the vital importance of expanding existing services and support to custodial grandparents.

The availability of social support was found to have a negative relationship with depression, anxiety, and stress, and was associated with higher reported life satisfaction. This relationship is especially profound in light of evidence that custodial grandparents commonly report social isolation and peer alienation associated with acting as a parent to their

grandchild. Recently, Brennan *et al.* (2013) found that, in New South Wales, securing funding for custodial grandparental support groups (particularly on an ongoing basis) has been identified as a major issue, preventing implementation on a state and federal level. Consequently, while there are multiple support groups available within most major cities in Australia, these groups are frequently informal, lack funding, and are typically operated independently of any cohesive national strategy to address the psychosocial needs of custodial grandparents. This dearth in the availability of social support has been commented upon in the Senate inquiry into grandparents who take primary responsibility for raising their grandchildren (APS, 2014). Grandparents frequently report feeling overwhelmed, with little support available. This observation culminates in the recommendation, in the strongest terms, that the government implement a coherent framework for the delivery of a national program of support for all grandparent carers. Given the strength of the negative relationship between the availability of social support and psychosocial distress, the development of such a program is essential for meeting the psychosocial needs of this parent population.

The results of the current study have profound implications for practitioners hoping to work with this parent group. These findings confirm that acting as a custodial grandparent is associated with grandparental distress; that being a grandchild in such an arrangement is associated with emotional and behavioural problems; and, that grandchild and grandparental distress frequently co-occur. This finding is consistent with the modified Family Stress Model posited by Smith, Palmieri, Hancock, and Richardson (2008) who suggest that this relationship is bi-directional: grandparental distress can result in poor parenting practices which can precipitate poor grandchild adjustment, and grandchild internalising and externalising behaviours can lead to family dysfunction, precipitating grandparental distress.

This model suggests that interventions designed to ameliorate grandparental distress will improve grandchildren's adjustment and vice versa. There is a dearth of published research investigating the *strength* of this relationship, however, and a potentially fruitful area of future research would be to determine the extent to which grandparental distress can be ameliorated through interventions designed to address grandchild adjustment such as the PSPSTP (Haywood, 2003) and GTP (Kirby & Sanders, 2014) programs.

Limitations and Future Directions

Several limitations of the present study should be acknowledged. Because the sample investigated were restricted to custodial grandparents who volunteered to participate, it is unclear if the findings can be generalised. Emerging literature concerning the prevalence of grandparent-headed households in Australia acknowledges a large population of informal grandparent-headed households for which no court order is in place (Council on the Ageing, 2003; Wellard, 2010). While care was taken to use participant recruitment methods that would include participants in such informal arrangements (e.g., placing advertisements in newspapers with wide distribution), grandparents in informal custodial relationships may have declined to participate, either because of confusion as to whether or not they met the criterion of being a custodial grandparent, or due to concerns that volunteering would call attention to their parenting arrangements from child protection agencies (this despite care having been taken to explicitly inform potential participants that data would be deidentified).

Future longitudinal studies are also needed to explore the direction of the relationship between some key variables. While the relationship between problem behaviours among grandchildren and custodial grandparental distress was confirmed, the study design makes it impossible to draw conclusions as to the direction of this relationship. Though previous

models (e.g., the modified FSM model; Smith *et al.*, 2008) have posited that this relationship may be bi-directional, this remains unproven in the literature. Future research is also needed to clarify the extent to which the parenting arrangements themselves contribute to the psychosocial stress experienced by grandparents and grandchildren. The life circumstances that can result in the necessity of these parenting arrangements are frequently stressful, and it is possible that these events are a precipitating factor for both grandparental stress and childhood behaviour problems.

It was beyond the scope of the present research to include birth parent variables in with these analyses; however, these variables would need to be considered for any proposed model of grandparental coping, and future research is needed to outline the relationship between these variables and psychosocial stress experienced by custodial grandparents and their grandchildren. Members of these three generations share genes, history, social environments, and potential vulnerabilities to issues of grief, loss, and attachment style; however, the potential moderating impact of the birth parents is not well canvassed in the available literature.

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REFERENCES

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms and Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families.
- Australian Bureau of Statistics (ABS). (1998). *Family Characteristics Australia (4442.0)*. Canberra, Commonwealth of Australia.
- Australian Bureau of Statistics (ABS). (2004). *Family Characteristics Australia (4442.0)*. Canberra, Commonwealth of Australia.
- Australian Bureau of Statistics (ABS). (2008). *Family Characteristics Australia (4442.0)*. Canberra, Commonwealth of Australia.
- Australia Institute of Health and Welfare. (2012). *Child Protection in Australia 2011-2012*. Australian Institute of Health and Welfare, Canberra.
- Australian Psychological Society. (2014). *Inquiry into Grandparents who take Primary Responsibility for Raising their Grandchildren*. Australian Psychological Society, Melbourne.
- Brandon, P. D. (2004). Identifying the diversity in Australian children's living arrangements: A research note. *Journal of Sociology*, 40(2), 179–192. doi: 10.1177/1440783304042872

Brennan, D., Cass, B., Flaxman, S., Hill, T., Jenkins, M, *et al.* (2013). Grandparents raising grandchildren: Toward recognition, respect, and reward. *University of New South Wales, Social Policy Research Centre, Report 14/13.*

Burton, L. M. (1992). Black grandparents rearing children of drug-addicted parents: Stressors, outcomes, and social service needs. *The Gerontologist, 32*, 744-751. doi: 10.1093/geront/32.6.744

Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the Family Stress Model. *Developmental Psychology, 38*, 179–193. doi: 10.1037/0012-1649.38.2.179

Council on the Ageing (COTA) (2003). *Grandparents Raising Grandchildren*. Australian Institute of Family Studies, Melbourne.

Department of Human Services (DHS) (2005). *Victorian families, children and their carers in 2016*. Background Paper Number 1, for the Family and Placement Services Sector Development Plan. Victorian Government Department of Human Services, Melbourne, Victoria.

Dunne, E. G., & Kettler, L. J. (2008). Grandparents raising grandchildren in Australia: Exploring psychological health and grandparents' experience of providing kinship care. *International Journal of Social Welfare, 17*, 333–345. doi: 10.1111/j.1468-2397.2007.00529.x

Edwards, O. W., & Mumford, V. E. (2005). Children raised by grandparents: Implications for social policy. *International Journal of Sociology and Social Policy, 25*, 18-30. doi:10.1108/01443330510629072

Emick, M. A. & Hayslip, B. (1999) Custodial grandparenting: Stresses, coping skills, and relationships with grandchildren. *The International Journal of Aging and Human Development, 48*, 35-61. doi: 10.2190/1FH2-AHWT-1Q3J-PC1K

Eyberg, S. M., & Ross, A. W. (1978). Assessment of child behaviour problems: The validation of a new inventory. *Journal of Consulting and Clinical Psychology, 7*, 113–116.

Fitzpatrick, N., & Reeve, P. (2003). Grandparents raising grandchildren: A new class of disadvantaged Australians. *Family Matters, 66*, 54-7.

Gerard, J. M., Landry-Meyer, L., & Roe, J. G. (2006). Grandparents raising grandchildren:

The role of social support in coping with caregiving challenges. *International Journal of Aging and Human Development*, *62*, 359-383. doi:10.2190/3796-DMB2-546Q-Y4AQ

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal*

of Child Psychology and Psychiatry, *38*, 581-586. doi: 10.1111/j.1469-7610.1997.tb01545.x

Hayslip, B. (2003). The impact of a psychosocial intervention on parental efficacy, grandchild relationship quality, and well-being among grandparents raising grandchildren. In B. Hayslip & J. Hicks-Patrick (Eds.), *Working with custodial grandparents* (pp. 163-178). New York: Springs.

Hayslip, B., & Kaminski, P. L. (2005). Grandparents raising grandchildren: A review of the

literature and suggestions for practice. *The Gerontologist*, *45*, 262-269. doi: 10.1093/geront/45.2.262

Hayslip, B., Shore, J. R., Henderson, C. E., & Lambert, P. L. (1998). Custodial

grandparenting and the Impact of grandchildren with problems on role satisfaction and role meaning. *Journal of Gerontology: Social Sciences*, *53B*, SI64-SI73. doi: 10.1093/geronb/53B.3.S164

- Heflinger, C. A., Simpkins, C. G., & Combs-Orme, T. (2000). Using the CBCL to determine the clinical status of children in state custody. *Children and Youth Services Review*, 22, 55-73. doi: 10.1016/S0190-7409(99)00073-0
- Hughes, M. E., Waite, L. J., LaPierre, T.A., & Luo, Y. (2007). All in the family: The impact of caring for grandchildren on grandparents' health. *Journal of Gerontology: Social Sciences*, 62(2), S108–S119.
- Kelley, S. J., & Whitley, D. (2003). Psychological distress and physical health problems in grandparents raising grandchildren: Development of an empirically based intervention model. In B. Hayslip & J. H. Patrick (Eds.), *Working with custodial grandparents* (pp. 127-144). New York: Springer Publishing Company.
- Kelley, S., Whitley, D., Sipe, T. & Yorker, B. (2000). Psychological distress in grandmother kinship care providers: The role of resources, social support, and physical health. *Child Abuse & Neglect*, 24 (3), 311-321.
- Kelley, S. J., Yorker, B. C., Whitley, D. M., & Sipe, T. A. (2001). A multimodal intervention for grandparents raising grandchildren: results of an exploratory study. *Child Welfare*, 80(1), 27-50. doi: 0009-4021/2001/010027-24
- Kirby, J. N., & Sanders, M. R. (2014). A randomized controlled trial evaluating a parenting program designed specifically for grandparents. *Behaviour Research and Therapy*, 52, 35-44. doi: 10.1016/j.brat.2013.11.002

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales.*

(2nd. Ed.) Sydney: Psychology Foundation.

Lumpkin, J. R. (2008). Grandparents in a Parental or Near-Parental Role: Sources of Stress and Coping Mechanisms. *Journal of Family Issues, 29*, 357-372. doi:

10.1177/0192513X07307848

McHugh, M. (2004). *The Availability of Foster Carers, Report Prepared for the NSW*

Department of Community Services. University of New South Wales, Sydney.

McHugh, M., & Valentine, K. (2011). *Financial and Non-Financial Support to Formal and*

Informal Out of Home Care, Occasional Paper No. 38. Department of Families,

Housing, Community Services and Indigenous Affairs, Canberra.

Merton, R. K. (1957). The role-set: Problems in sociological theory. *The British Journal of Sociology, 8*(2), 106-20.

Minkler, M., Fuller-Thomson, E., Miller, D., & Driver, D. (1997). Depression in

Grandparents raising grandchildren: Results of a national longitudinal study. *Archives of Family Medicine, 6*, 445-452. doi:10.1001/archfami.6.5.445

Minkler, M., Roe, K. M., & Price, M. (1992). The physical and emotional health of

grandmothers raising grandchildren in the crack cocaine epidemic. *The Gerontologist,*

32(6), 752-761.

- Nandy, S., & Selwyn, J. (2011). *Spotlight on Kinship Care: Using Census Microdata to Examine the Extent and Nature of Kinship Care in the UK at the Turn of the Twentieth Century*. University of Bristol, Bristol.
- Neugarten, B. L., Havighurst, R. J., & Tobin, S. S. (1961). The measurement of life satisfaction. *Journal of Gerontology, 16*, 134-143.
- Orb, A., & Davey, M. (2005). Grandparents parenting their grandchildren. *Australasian Journal on Ageing, 24*, 162-168. doi:10.1111/j.1741-6612.2005.00114.x
- Sands, R. G., & Goldberg-Glen, R. S. (2000). Factors associated with stress among grandparents raising their grandchildren. *Family Relations, 49*, 97–105. doi: 10.1111/j.1741-3729.2000.00097.x
- Shore, N., Sim, K. E., Le Prohn, N. S., & Keller, T. E. (2002). Foster parent and teacher assessments of youth in kinship and non-kinship foster care placements: Are behaviors perceived differently across settings? *Children and Youth Services Review, 24*, 109–134. doi:10.1016/S0190-7409(01)00170-0
- Smith, G. C., & Hancock, G. R. (2010). Custodial grandmother-grandfather dyads: Pathways among marital distress, grandparent dysphoria, parenting practice, and grandchild adjustment. *Family Relations, 59*(1), 45-59. doi: 10.1111/j.1741-3729.2009.00585.x

Smith, G. C., & Palmieri, P. A. (2007). Risk of psychological difficulties among children raised by custodial grandparents. *Psychiatric Services, 58*(10), 1303-1310. doi: 10.1176/appi.ps.58.10.1303

Smith, G. C., Palmieri, P. A., Hancock, G. R., & Richardson, R. A. (2008). Custodial grandmothers' psychological distress, dysfunctional parenting, and grandchildren's adjustment. *International Journal of Aging and Human Development, 67*(4), 327-57. doi: 10.2190/AG.67.4.c

Smyth, C., & Eardley, T. (2008). *Out of Home Care for Children in Australia: A Review of Literature and Policy* SPRC Report 3/08, Social Policy Research Centre, University of New South Wales, Sydney.

Spence, N. (2004). Kinship Care in Australia. *Child Abuse Review, 13*, 263–276. doi: 10.1002/car.854

Wellard, S. (2010). *Too Old to Care: The Experiences of Older Grandparents Raising Their Grandchildren*. Grandparents Plus, London.

Whitley, D. M., Kelley, S. J., & Sipe, T. A. (2001). Grandmothers raising grandchildren: Are they at increased risk of health problems? *Health & Social Work, 26*(2), 105-114. doi: 10.1093/hsw/26.2.105

Yardley, A., Mason, J., Watson, E. (2009). *Kinship Care in NSW: Finding a Way Forward*.

Social Justice and Social Change Research Centre, University of Western Sydney,
Sydney.

Zimet, G. D., Dahlem, N. W., Zimet, S. G. & Farley, G. K. (1988). The Multidimensional

Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30- 41. doi:

10.1207/s15327752jpa5201_2.

Table 1

Characteristics of participants: 100 grandparents and 128 grandchildren

| | Number | Percentage |
|----------------------------|--------|------------|
| Gender | | |
| Male | 16 | 16% |
| Female | 84 | 84% |
| Relationship status | | |
| In a relationship | 52 | 52% |
| Single | 48 | 48% |
| Household income | | |
| \$0-\$20,000 | 18 | 18% |
| \$20,000-\$40,000 | 49 | 49% |
| \$40,000-\$60,000 | 15 | 15% |
| \$60,000-\$80,000 | 9 | 9% |
| \$80,000-\$100,000 | 5 | 5% |
| \$100,000+ | 2 | 2% |
| Level of care | | |

| | | |
|--|----|-------|
| Full-time care | 86 | 86% |
| Part-time care | 14 | 14% |
| Number of grandchildren in the abnormal range for behavioural and emotional problems | | |
| SDQ - Emotional symptoms | 29 | 23% |
| SDQ - Conduct problems | 32 | 25% |
| SDQ - Hyperactivity | 37 | 29% |
| SDQ - Peer problems | 29 | 23% |
| ECBI – Problem Intensity | 24 | 15.4% |
| ECBI – Problem Scale | 25 | 16.1% |

Note. SDQ = Strengths and Difficulties Questionnaire. ECBI = Eyberg Child Behavior Inventory. It was not suitable to report the mean and standard deviation for the SDQ and ECBI as differing versions were used according to the age of the child, and 35% of the sample had multiple grandchildren. Instead the number and percentage of children within the clinical range is reported.

Table 2

Bivariate Correlations of Demographic Factors, Children's Emotional and Behavioural Problems, Social Support and Measures of Psychological Well-being

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | <i>M</i> | <i>SD</i> | <i>N</i> |
|------------------------------------|----|-----|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|--------|----------|-----------|----------|
| 1. Age | 1. | .14 | -.18 | -.14 | -.07 | -.25* | .26* | -.09 | -.07 | .01 | .00 | -.13 | -.02 | .21 | .32** | .24* | 63.14 | 7.69 | 99 |
| 2. Relationship Status | | 1. | .41** | -.17 | -.16 | .04 | .28** | .05 | .09 | .17 | .04 | .12 | -.02 | .34** | .32** | .05 | .58 | .50 | 100 |
| 3. Household Income | | | 1. | -.27* | -.24* | .08 | .24* | .07 | -.10 | -.19 | -.18 | -.09 | -.22 | .29** | .28** | .18 | 2.39 | 1.16 | 98 |
| 4. Depression | | | | 1. | .73** | .78** | -.67** | .29** | -.07 | .14 | .08 | .07 | .01 | -.43** | -.51** | -.41** | 5.11 | 5.10 | 87 |
| 5. Anxiety | | | | | 1. | .71** | -.47** | .29** | .06 | .16 | .14 | .15 | .04 | -.28** | -.38** | -.30** | 3.43 | 4.52 | 87 |
| 6. Stress | | | | | | 1. | -.44** | .37** | .04 | .23* | .16 | .22 | .02 | -.33** | -.38** | -.39** | 6.95 | 5.57 | 87 |
| 7. Life Satisfaction | | | | | | | 1. | -.20 | -.09 | -.28* | -.18 | -.11 | -.03 | .49** | .47** | .40** | 20.43 | 8.22 | 87 |
| 8. Emotional Symptoms ^a | | | | | | | | 1. | .41** | .28* | .39** | .49** | .10 | -.03 | -.10 | -.13 | .36 | .51 | 80 |
| 9. Conduct Problems ^a | | | | | | | | | 1. | .58** | .57** | .63** | .54** | .02 | .02 | -.18 | .40 | .63 | 80 |
| 10. Hyperactivity ^a | | | | | | | | | | 1. | .43** | .51** | .42** | .07 | -.18 | -.26* | .46 | .64 | 80 |
| 11. Peer Problems ^a | | | | | | | | | | | 1. | .39** | .44** | -.10 | -.10 | -.10 | .36 | .58 | 80 |
| 12. ECBI Intensity ^b | | | | | | | | | | | | 1. | .53** | -.05 | -.11 | -.16 | .34 | .55 | 77 |
| 13. ECBI Problem ^b | | | | | | | | | | | | | 1. | -.04 | -.09 | -.12 | .40 | .65 | 77 |
| 14. Significant Other | | | | | | | | | | | | | | 1. | .67** | .56** | 19.82 | 7.39 | 87 |
| 15. Family | | | | | | | | | | | | | | | 1. | .41** | 17.95 | 7.35 | 87 |

16. Friends

1. 18.60 6.44 87

$p < .05$ ** $p < .01$

Note. Number of children in the clinical range on the Strengths and Difficulty Questionnaire ^a and on the (ECBI) Eyberg Child Behaviour Inventory ^b

Table 3

Hierarchical Multiple Regression Analyses Predicting Depression from Age, Relationship Status, Income, Child Behavioural Problems and Social Support

| Predictor | Step 1 | | | Step 2 | | | Step 3 | | |
|---------------------|---------|-------|------|---------|-------|------|---------|-------|------|
| | β | B | SEB | β | B | SEB | β | B | SEB |
| Age | -.19 | -0.13 | 0.08 | -.19 | -.23 | 0.07 | -.01 | -0.01 | 0.07 |
| Relationship Status | -.02 | -0.19 | 1.29 | -.02 | -.19 | 1.28 | .03 | 0.34 | 1.21 |
| Household Income | -.29* | -1.28 | 0.56 | -.31* | -1.38 | 0.56 | -.18 | -0.79 | 0.52 |
| Emotional Symptoms | | | | .42** | 4.21 | 1.28 | .36** | 3.62 | 1.16 |
| Conduct Problems | | | | -.40* | -3.21 | 1.32 | -.33* | -2.65 | 1.22 |
| Hyperactivity | | | | .18 | 1.45 | 1.10 | .03 | 0.23 | 1.04 |
| Peer Problems | | | | .07 | 0.62 | 1.16 | .11 | 0.98 | 1.07 |
| ECBI Intensity | | | | -.08 | -0.73 | 1.46 | -.07 | -0.64 | 1.32 |
| ECBI Problem | | | | .04 | 0.31 | 1.08 | .03 | 0.20 | 0.98 |
| Significant Other | | | | | | | .03 | 0.02 | 0.11 |
| Family | | | | | | | -.34* | -0.24 | 0.10 |
| Friends | | | | | | | -.26* | -0.20 | 0.10 |

* $p < .05$ ** $p < .01$. Note. ECBI = Eyberg Child Behavior Inventory.

Table 4

Hierarchical Multiple Regression Analyses Predicting Anxiety from Age, Relationship Status, Income, Child Behavioural Problems and Social Support

| Predictor | Step 1 | | | Step 2 | | | Step 3 | | |
|---------------------|---------|-------|------|--------|-------|------|---------|-------|------|
| | β | B | SEB | B | B | SEB | β | B | SEB |
| Age | -.11 | -0.06 | 0.07 | -.08 | -0.05 | 0.07 | .06 | 0.03 | 0.07 |
| Relationship Status | -.05 | -0.49 | 1.17 | -.09 | -0.78 | 1.21 | -.06 | -0.57 | 1.22 |
| Household Income | -.23 | -0.90 | 0.50 | -.23 | -0.88 | 0.53 | -.13 | -0.51 | 0.53 |
| Emotional Symptoms | | | | .32* | 2.83 | 1.21 | .27* | 2.39 | 1.18 |
| Conduct Problems | | | | -.22 | -1.55 | 1.25 | -.17 | -1.23 | 1.24 |
| Hyperactivity | | | | .12 | 0.88 | 1.04 | .00 | .00 | 1.06 |
| Peer Problems | | | | .09 | 0.69 | 1.10 | .14 | 1.07 | 1.09 |
| ECBI Intensity | | | | .03 | 0.27 | 1.38 | .05 | 0.39 | 1.34 |
| ECBI Problem | | | | -.04 | -0.30 | 1.02 | -.06 | -0.42 | 0.99 |
| Significant Other | | | | | | | .13 | 0.08 | 0.11 |
| Family | | | | | | | -.32 | -0.19 | 0.10 |
| Friends | | | | | | | -.22 | -0.15 | 0.10 |

* $p < .05$ ** $p < .01$. Note. ECBI = Eyberg Child Behavior Inventory.

Table 5

Hierarchical Multiple Regression Analyses Predicting Stress from Age, Relationship Status, Income, Child Behavioural Problems and Social Support

| Predictor | Step 1 | | | Step 2 | | | Step 3 | | |
|---------------------|---------|-------|------|---------|-------|------|---------|-------|------|
| | β | B | SEB | β | B | SEB | β | B | SEB |
| Age | -.31* | -0.23 | 0.09 | -.29* | -0.21 | 0.08 | -.16 | -0.11 | 0.08 |
| Relationship Status | .17 | 1.94 | 1.42 | .13 | 1.42 | 1.38 | .16 | 1.78 | 1.38 |
| Household Income | -.21 | -0.98 | 0.61 | -.18 | -0.88 | 0.60 | -.08 | -0.39 | 0.60 |
| Emotional Symptoms | | | | .38** | 4.12 | 1.38 | .34* | 3.68 | 1.33 |
| Conduct Problems | | | | -.39* | -3.45 | 1.43 | -.35* | -3.08 | 1.40 |
| Hyperactivity | | | | .21 | 1.82 | 1.19 | .10 | 0.90 | 1.19 |
| Peer Problems | | | | .14 | 1.39 | 1.26 | .16 | 1.60 | 1.23 |
| ECBI Intensity | | | | .07 | 0.70 | 1.58 | .08 | 0.78 | 1.51 |
| ECBI Problem | | | | -.04 | -0.36 | 1.17 | -.05 | -0.40 | 1.12 |
| Significant Other | | | | | | | -.03 | -0.03 | 0.12 |
| Family | | | | | | | -.18 | -0.14 | 0.12 |
| Friends | | | | | | | -.22 | -0.19 | 0.11 |

* $p < .05$ ** $p < .01$. Note. ECBI = Eyberg Child Behavior Inventory.

Table 6

Hierarchical Multiple Regression Analyses Predicting Life Satisfaction from Age, Relationship Status, Income, Child Behavioural Problems and Social Support

| Predictor | Step 1 | | | Step 2 | | | Step 3 | | |
|---------------------|---------|------|------|---------|-------|------|---------|-------|------|
| | β | B | SEB | β | B | SEB | β | B | SEB |
| Age | .28* | 0.30 | 0.12 | .27* | 0.29 | 0.12 | .15 | 0.16 | 0.12 |
| Relationship Status | .15 | 2.46 | 2.01 | .24 | 3.90 | 2.03 | .18 | 2.90 | 2.00 |
| Household Income | .23 | 1.60 | 0.86 | .16 | 1.10 | 0.89 | .06 | 0.40 | 0.87 |
| Emotional Symptoms | | | | -.16 | -2.64 | 2.03 | -.14 | -2.19 | 1.94 |
| Conduct Problems | | | | .18 | 2.39 | 2.10 | .12 | 1.63 | 2.04 |
| Hyperactivity | | | | -.37** | -4.80 | 1.75 | -.29* | -3.73 | 1.74 |
| Peer Problems | | | | -.14 | -1.94 | 1.84 | -.13 | -1.81 | 2.19 |
| ECBI Intensity | | | | .06 | 0.91 | 2.31 | .07 | 0.99 | 1.63 |
| ECBI Problem | | | | .12 | 1.50 | 1.72 | .11 | 1.43 | 0.18 |
| Significant Other | | | | | | | .21 | 0.23 | 0.17 |
| Family | | | | | | | .11 | 0.11 | 0.17 |
| Friends | | | | | | | .17 | 0.17 | 0.16 |

* $p < .05$ ** $p < .01$. Note. ECBI = Eyberg Child Behavior Inventory.