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### Custodial grandmother-grandfather dyads: Pathways among marital distress, grandparent dysphoria, parenting practice, and grandchild adjustment

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#### Abstract

An adaptation of the Family Stress Model was examined using structural equation modeling with data from 193 custodial grandmother-grandfather dyads. The model's measurement and structural components were largely invariant by grandparent gender. For grandmothers and grandfathers alike, the effects of their psychological and marital distress on grandchildren's adjustment difficulties were mediated by dysfunctional parenting. The effects of family-related contextual forces on grandchildren's adjustment were also indirect through direct effects on grandparents' psychological and marital distress.

#### Keywords

Custodial Grandparents; Parenting; Psychological Well-Being; Marital Distress; Family Processes

Custodial grandparents (CGPs) are increasingly serving as long-term surrogate parents to custodial grandchildren (CGs). Also referred to as "skipped-generation" grandparents, CGPs are those providing full-time care to grandchildren in their household with no birth parents present to assist with child care. Data from the 2005-2007 American Community Survey indicate that nearly one million CGs under age 18 are cared for in CGP-headed households. Additional population-based data reveal that over 50% of CGPs who provide this care are married (Fuller-Thompson & Minkler, 2001). Yet, despite mounting evidence that mental health challenges are common among CGPs (see Park & Greenberg, 2007) and CGs (Smith & Palmieri, 2007), scant attention has been paid to how the well-being of both CGPs and CGs is understood in terms of broader family processes.

A major limitation of the existing literature is that virtually no research has examined how the quality of the relationship between married CGPs may be linked to their mental health as well as to that of CGs. In this study, we test an expansion of the Family Stress Model (FSM; Conger et al., 2002) with hypothesized links among family contextual factors, CGP psychological distress, quality of the marital relationship, parenting practices used by CGPs, and the psychological adjustment of CGs. Using structural equation modeling (SEM), we also examine if the model's measurement and structural features are similar by CGP gender.

Models of family stress and resilience maintain that stressors cause, sustain, or amplify mental health difficulties in families (e.g., Kwok et al., 2005), and there is compelling evidence that being a CGP brings on new stressors (e.g., family disruption, social isolation, financial strain) that increase psychological distress in an already vulnerable population

(Park & Greenberg, 2007). Additionally, CGs in these families are predisposed to psychological challenges stemming from their birth parents' difficulties. Such predispositions may arise from prenatal impacts (e.g., drug addiction, fetal alcohol syndrome, HIV/AIDS) or the emotional trauma of parental abuse and neglect (Hayslip, Shore, Henderson, & Lambert, 1998). Yet, to date, studies have focused primarily on the physical and psychological impact of caregiving on CGPs, with scant attention to the physical and emotional outcomes of CGs (Kelch-Oliver, 2008).

It has been claimed recently that parenting is the central responsibility of CGPs and that psychosocial stressors related to their family situation might compromise their ability to parent competently (Dolbin-MacNab, 2006; Hayslip & Kaminski, 2008). This claim is sensible given abundant findings in the parenting literature that (a) caregiver distress is related to poor parenting, (b) poor parenting is related to child adjustment problems, and (c) parenting mediates the relations between caregiver distress and child adjustment (Deater-Deckard, 1998; Kane & Garber, 2004; Shelton & Gordon, 2008). It has also been assumed that parenting behavior is a mediator of more distal stressors, such as social and economic disadvantage and parental conflict on children's adjustment (Deater-Deckard; Kane & Garber). Moreover, the adverse effects of parental distress and parenting inadequacies on children's adjustment occur in clinical and non-clinical families alike (Papp, Cummings, & Goeke-Morey, 2005).

Recently, we tested a modification of the FSM with data from a nationwide sample of 733 custodial grandmothers (GMs; Smith, Palmieri, Hancock, & Richardson, 2008). In addition to examining parenting practices as a mediator between GMs' psycho-logical distress and CGs' internalizing and externalizing symptoms (Conger et al., 2002), we expanded the original FSM to include family contextual factors (family dysfunction, social support, GM's health and education) found previously to be related to CGP's psychological well-being (Grinstead, Leder, Jensen, & Bond, 2003). Adding these contextual forces is important because financial pressure is the only contextual factor recognized by the original FSM, whereas CGPs experience a much wider range of stressors and resources. A further goal was to examine via SEM if both the measurement and structural components of the proposed model were invariant by GM race (White vs. Black), CGP age ( $\leq$  55 vs. > 55), CG Gender, and CG Age (4-7, 8-11, 12-17).

Like past SEM studies of the FSM across diverse types of family environments (Barnett, 2008), the basic tenets of the FSM were found to be robust and largely invariant by race, age of both GM and CG, and CG gender regarding both the measurement and structural components of the model (Smith et al., 2008). Thus, similar to the findings of earlier longitudinal studies with biological parents (Forehand & McCombs, 1988; Kwok et al., 2005), the parenting practices reported by custodial GMs mediated the relation between their psychological well-being and CG outcomes. Only a handful of structural pathways varied between groups, while group differences were prevalent regarding the mean levels of the constructs in the model. Thus, frameworks like the FSM are key to understanding processes within custodial grandfamilies.

The purpose of this study is to examine a further adaptation of the expanded FSM (shown partially in Figure 1) with a sample of married CGPs residing in the same household and providing care to CG of ages 4 to 17. Specifically, a single dyadic model was examined containing all elements shown in Figure 1 for GMs as well as for GFs (although with only one common income variable), where: (1) all exogenous elements on the left of the model covaried within and across CGPs; (2) paths were not only within CGP gender, but across as well; (3) disturbances (latent residuals) covaried within and across CGP gender at common levels of the model; and (4) errors (measured residuals) of identical measures covaried

across CGPs. The dyadic model, too large to depict entirely in Figure 1, allows examination of whether the model's measurement and structural components are invariant by CGP gender within dyads.

These aims are important for several reasons. One is that the samples of CGPs in past studies were comprised overwhelmingly of GMs even though over half of all CGPs are married (Fuller-Thompson & Minkler, 2001). As Patrick and Tomczewski (2007) noted, "the benefits offered by custodial grandfathers have been undervalued, with researchers assuming that married custodial grandfathers serve primarily as a support to the grandmother, and do not directly engage in child-rearing" (p.114). Yet, knowledge of how custodial grandfathers (GFs) function in the parenting role is critical to developing services for these families (Bullock, 2005).

The present study is also important because our prior test of the expanded FSM with custodial GMs (Smith et al., 2008) did not consider the pivotal role of marital difficulties on parenting behavior. As specified in the original FSM, psychological distress experienced by both caregivers creates disturbance in the marital relationship which then affects parenting adversely (Barnett, 2008; Conger et al., 2002). This is consistent with the family systems perspective that "spillover" from the marital to the parent-child relationship leads to problem parenting (Krishnakumar & Buehler, 2000), and with findings that problem parenting in the context of marital conflict predicts child maladjustment (Du Rocher Schudlich & Cummings, 2007).

Despite claims that married CGP bring the resources of two people to bear on the caregiving situation (Hughes, Waite, LaPierre, & Luo, 2007; Kelch-Oliver, 2008); studies have actually shown that (a) self-reported parenting stress is higher for married versus non-married CGPs (Ross & Aday, 2006), and (b) married CGPs often report problems in the marital relationship that arise from caregiving (Grinstead et al., 2003.) Such marital problems might involve jealousy over time spent with CG, decreased privacy, less sexual activity, and increased tension.

Using SEM to examine if both measurement and structural equivalence of the proposed model exists across CGP gender is another key feature of this study. As Adamsons and Buehler (2007) noted, studies on parenting have "yet to address whether mothers and fathers parent their children in substantively different ways within the context of evidence of measurement equivalence" (p. 274). Tests of measurement equivalence by gender are needed because, without them, it is unclear if inferences regarding substantive differences (or no differences) between male and female caregivers are valid. Moreover, even if the measurement model is equivalent by gender, it is possible that invariance does not similarly exist for the structural model (i.e., pathways connecting the latent constructs. Thus, testing for both measurement and structural equivalence of the proposed model by CGP gender is an important goal of the present study.

Several hypotheses are embedded in the proposed model. First, consistent with the FSM (Conger et al, 2002) and our prior findings with custodial GMs (Smith et al., 2008), we hypothesize that the relation between CGP psychological distress and CG adjustment is mediated by dysfunctional parenting. As noted above, abundant research in the parenting literature shows that parenting behavior mediates the links between parenting stress and child adjustment.

A second hypothesized sequence is that higher levels of GM and GF psychological distress will lead to distress in the marital relationship. In turn, increased marital distress is associated with higher levels of dysfunctional parenting. The pathway between marital distress and parenting dysfunction is derived from the "socialization hypothesis", which

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holds that parents with marital difficulties tend to use less optimal parenting techniques than those without marital difficulties (Erel & Burman, 1995). There is also abundant evidence that marital difficulty mediates the relation between parent psychopathology and child adjustment (Cummings, Keller, & Davies, 2005). Specifically, prior tests of the FSM have verified the causal chain where parent psychological distress amplifies marital difficulty which, in turn, increases children's adjustment problems due to an adverse impact on parentchild relations (Shelton & Gordon, 2008).

We also hypothesize that the contextual factors added to the model will affect CG adjustment indirectly as a result of their direct effects on both marital distress and CGP psychological distress. In line with past research on caregiving grandparents (see, Grinstead et al., 2003), we predict that higher levels of education, household income, self-reported health, and perceived social support are protective factors that lessen the degree of psychological distress experienced by CGPs. We further predict that family dysfunction encompassing both boundary ambiguity and anger felt toward the CGP's son or daughter (the CG's birth parent) will heighten CGP psychological distress. These caregivers often negotiate boundaries across three generations, while feeling animosity toward an offspring whose likely irresponsible behavior forced them to care for a needy CG (Bartram, 1996). Because there is neither a distinct absence nor presence of the CG's parent, boundaries regarding family roles, norms, and resource allocation are ambiguous and anger towards the birth parent escalates (Brown-Standridge & Floyd, 2000). Our hypothesis that the model's contextual factors will have identical effects on marital distress as just described for CGP psychological distress is based on meta-analytic findings that marital quality is related to both the stressful experiences and adaptive resources of married couples (Karney & Bradbury, 1995).

Given the repeated findings in the general parenting literature of very few gender differences in the covariation of parents' distress, parenting practices, and child adjustment (Connell & Goodman, 2002; Cummings et al., 2005; Deater-Deckhard, 1998; Kane & Garber, 2004), a final hypothesis is that the structural pathways specified in the proposed model will be similar regardless of CGP gender. Yet, as noted earlier, unless tests of measurement equivalence regarding the model's latent constructs are first performed, inferences regarding similarities or differences between custodial GMs and GF in the hypothesized pathways are questionable.

#### Methods

#### Participants

Participants were 193 married custodial GMs (M age = 55.7 years, SD = 7.61) and GFs (M age = 58.2 years, SD = 9.3) residing in the same household and providing full-time care to a CG in absence of the CG's birth parents for at least three months (M = 6.0 years, SD = 3.4). The 193 dyads were from a larger sample of 733 GMs who participated in our earlier study (Smith et al., 2008). This sample was recruited across the 48 contiguous states for an NIMH-funded study of stress and coping among CGPs through a combination of convenience (social service agencies; internet, radio, and newspaper ads) and population-based method (recruitment letters sent to randomly generated lists of the approximately 38 million households with children under age 18). Grandparents were excluded if they provided care to the CG due to the death of their own offspring because the boundary ambiguity and anger constructs do not apply to these circumstances.

Key demographic data regarding the present sample are shown in Table 1. If a dyad cared for multiple CGs fitting eligibility criteria, a target CG with the most recent birthday was selected. The CGs were 103 girls and 90 boys (M age = 9.3 years, SD = 3.6, Range = 4 to

16.4 years). The majority of CGPs (68.4%) provided care to a CG who was born to a daughter or step-daughter. Most reported multiple reasons for providing care, which largely concerned crisis or tragedy in the parent generation (e.g., 51.8% substance abuse; 47.2% incarceration). Most of the CGPs were White (64 %); had annual incomes < \$50,000 (69.5%); lived in large cities, small towns, or suburbs (55.9%); and reported some form of legal arrangements for the CG (84.5%).

#### Measures

The following self-report measures were completed separately by GMs and GFs within a telephone interview conducted by trained interviewers at a public research university in Ohio.

*Psychological distress* included self-reported indicators of depression and anxiety, which is in line with the consensus that negative affectivity *in general* rather than depression *per se* leads to dysfunctional parenting (Conley, Caldwell, Flynn, Dupre, & Rudolph, 2004). Depression was assessed by the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). For each item, participants endorsed the response that best described how often they had felt in the past week on a 4-point frequency scale from 0 (*rarely or none of the time - less than 1 day*) to 3 (*most or all of the time - 5 to 7 days*). Potential scores ranged from 0 to 60 ( $\alpha$  = .89 GM; .83 GF). Anxiety was assessed by the three-item Mental Health Inventory II Anxiety scale (Stewart, Ware, Sherbourne, & Wells, 1992). Respondents rated how often during the past month they felt very nervous, tense, or restless, from 1 (*all of the time*) to 6 (*none of the time*). Composite scores were computed by averaging the three items, with a possible range of 1 to 6. Higher scores indicated greater anxiety ( $\alpha$  = .83 GM; .76 GF).

**Marital distress**—A modification of the Spouse subscale from the Parenting Stress Index (Abidin, 1995) was used as a single indicator of this construct. The original seven item scale, which measures the absence of emotional and active support of the other parent in the area of child management and the level of conflict in the relationship (e.g., "Having a child has caused more problems than I expected in my relationship with my spouse"), was modified by altering the wording to reflect care provision to a CG and by deleting two items (i.e., related to difficulty with in-laws and relatives; and expenses). The remaining five items were rated on a Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*) and summed for a potential range of 5 to 20. Higher scores reflect greater disruption in the caregiver relationship ( $\alpha = .79$  GM; .77 GF).

**Dysfunctional parenting**—Rather than conceptualizing dysfunctional parenting as a first-order latent construct assessed by multiple indicators (e.g., harshness, lack of warmth, poor child management), we modeled it as a higher-order factor indicated by two first-order factors labeled as Ineffective Discipline and Low Nurturance. This approach is based upon the widespread view that ineffective discipline and low nurturance are distinct, yet highly correlated, constructs that comprise the most influential parenting mechanisms known to affect the development of adjustment problems in children (Locke & Prinz, 2002).

Two subscales from the Parenting Stress Index (Abidin, 1995) were indicators of the low nurturance construct. The Reinforces Parent scale contains six items measuring the extent to which a caregiver projects negative responses onto the child. The Attachment scale contains seven items assessing the caregiver's emotional closeness to the child and the real or perceived inability to observe and understand the child's needs and feelings. Items on both scales are rated from 1 (*strongly agree*) to 5 (*strongly disagree*) with several items reverse-scored so that the higher the score the more problematic the parent-child relationship. For

Reinforces Parent, the potential range was 6 to 29, with Cronbach's alphas of .69 for GMs and .75 for GFs. For Attachment the potential range was 7 to 35, with Cronbach's alphas of . 60 for GMs and .62 for GFs.

Scales measuring CGPs' use of Harsh and Inconsistent discipline served as indicators of the ineffective discipline construct. Each scale contained three items adapted from the Parenting Practices Interview (PPI). The latter was derived from the Oregon Social Learning Center's discipline questionnaire by Webster-Stratton, Reid, and Hammond (2001). CGPs rated each item (e.g., "Raise your voice, scold, or yell," "Threaten to punish your grandchild but not really punish him/her") on a 5-point frequency scale ranging from 1 (*never*) to 5 (*very often*) in response to the query, "In general, how often do you do each of the following when your grandchild misbehaves?" Items were summed to yield scores for each type of discipline (possible range = 3 to 15), with higher scores reflecting greater use. Alpha coefficients were somewhat low for both Harsh (.62 GM; .56 GF) and Inconsistent (.51 GM; .50 GF) discipline.

Social support was measured in terms of both perceived availability and satisfaction with support from friends and family. Availability was assessed by the eight-item Expressive Support Scale (Pearlin, Mullan, Semple, & Skaff, 1990). Each item was rated from 1 (*strongly disagree*) to 5 (*strongly agree*), with potential scores ranging from 8 to 40 ( $\alpha = .89$  GM; .85 GF). Satisfaction was measured by one item developed for this study: "Overall, how satisfied are you with the emotional support and understanding that you receive from your friends and neighbors?" that was rated from 0 (*not at all satisfied*) to 5 (*extremely satisfied*).

*Family dysfunction* was assessed by two scales developed for this research that were pilot tested with 44 CGPs. Boundary Ambiguity was measured by a four-item adaptation of an 11-item measure of this construct for dementia caregivers (Caron, Boss, & Mortimer, 1999). Each item (e.g., "There is confusion in my family right now about who should be playing what roles") was rated from 1 (*strongly disagree*) to 4 (*strongly agree*). Potential scores range from 4 to 16 ( $\alpha$  = .71 GM; .62 GF). Anger toward the absent parent was assessed by five items (e.g., "I feel angry about the way \_\_\_\_\_\_ has behaved as a parent") rated from 1 (*strongly disagree*). Potential scores range from 5 to 20 ( $\alpha$  = .89 GM; . 86 GF).

**Contextual demographic variables**—Education was self-reported by CGPs ranging from 1 (*less than five years of school*) to 7 (*graduate/ professional training*). Grandparents' health was assessed by one self-rated item ranging from 1 (*poor*) to 5 (*excellent*).

Two measures were obtained from CMs only.

*Household income* was measured by asking "What is your approximate total yearly household income after taxes?" Response alternatives were from 1 (*under \$10,000*) to 10 (*more than \$125,000*).

**CG's maladjustment**—Four subscales from the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001) were used with GMs only as informants. The SDQ shows good psychometric properties in diverse populations and correlates highly with other indices of childhood maladjustment (Goodman, 2001). Externalizing problems were assessed by the Hyperactivity-Inattention ( $\alpha = .83$ ) and Conduct Problems ( $\alpha = .74$ ) scales, and Internalizing problems were assessed by the Emotional Symptoms ( $\alpha = .73$ ) and Peer Problems ( $\alpha = .61$ ) scales. Each scale had five items rated by GMs regarding the CG's behavior on a 3-point scale from 0 (*not true*) to 2 (*certainly true*). Scores were computed by summing items on

each scale (potential range = 0 - 10), with higher scores indicating more of the measured behavior. Although our measures of CG maladjustment were derived solely from GM's

reports, parental figures have been shown to be reliable informants of children's behavior (Achenbach, McConaughy, & Howell, 1987). A recent comparison of maternal and paternal reports of children's behavior involving the SDQ revealed a moderate to large correlation between the continuous subscale scores reported respectively by fathers and mothers (Dave, Nazareth, Senior, & Sherr, 2008).

Although some of the measures had low internal consistency, all had  $\alpha$  reliability estimates that were at least .50, which is acceptable for group comparisons and correlational analyses (Stewart et al., 1992). When measured variables indicate latent variables in SEM, structural relations in the model are corrected for measurement error in the indicators (Byrne, 2006).

#### **Data Analyses and Results**

Descriptive statistics for the respective indicator variables of the latent constructs in the hypothesized model, and the respective paired sample *t*-test comparisons of each indicator for GM-GF dyads, are shown in Table 2. Compared to GFs, GMs reported statistically significantly (p < .05) higher anxiety, relationship difficulty, problems with attachment, harsh discipline, anger toward the CG's parent, and boundary ambiguity. On average, GMs also reported their health to be less positive than did GFs. Of the 13 indicator variables measured in both members of the dyad, all but three (depression, satisfaction with social support, and self-rated physical health) showed statistically significant correlations between measures from GMs and GFs.

Using EQS 6.1 SEM software, Byrne's (2006) recommendations for examining multigroup invariance were followed in the hypothesized dyadic model. The maximum likelihood (ML) procedure with robust corrections was used because it provides data-model fit indices and test statistics adjusting for non-normality via the Satorra-Bentler (S-B) correction (Curran, West, & Finch, 1996). This correction is critical because failing to adjust for non-normality, as is typical of the mental health measures used here, can yield distorted tests of measurement and/or structural relations.

The baseline model, precisely as shown in Figure 1, was first tested for GMs and GFs separately to ensure that it represented a reasonably well-fitting model for both groups in terms of parsimony and substantive meaningfulness. The resulting data-model fit indices were good for both GMs (Robust Comparative Fit Index, robust CFI = .95; Robust Root Mean Square Error of Approximation, robust RMSEA = .041; Standardized Root Mean Square Residual, SRMR = .055; S-B  $\chi^2_{(109)}$  = 144.71, *p* = .15) and GFs (robust CFI = .91; robust RMSEA = .054; SRMR = .065; S-B  $\chi^2_{(109)}$  = 169.79, *p* = .0002), and no changes to the baseline model were suggested by the diagnostic Lagrange Multiplier (LM) tests for either group. Because the baseline model fit the observed data for both GMs and GFs acceptably, the GM and GF models were merged into one dyadic model as described previously, so that the measurement and structural invariance across GMs and GFs within dyads could then be examined in a logical and increasingly restrictive sequence (Byrne, 2006).

First, configural invariance of the measurement portion of the model was established. In this step, the same parameters estimated in the baseline model for GMs and GFs separately were re-estimated within a dyadic representation of the baseline model consisting of parallel pathways for GMs and GFs across all of the hypothesized paths as described previously. The fit of this configural model was reasonably good (robust CFI = .92; robust RMSEA = .039; SRMR = .069; S-B  $\chi^2_{(356)} = 462.30$ , p = .0001), thus providing the baseline values against which subsequently specified invariance models were compared.

Second, measurement invariance of the measurement model was tested by computing datamodel fit with the hypothesized factor loadings for all latent constructs constrained to be equal across the GM and GF halves of the model. Fit indices from this fully constrained measurement model (robust CFI = .92; robust RMSEA = .039; SRMR = .069; S-B  $\chi^2_{(362)}$  = 466.14, *p* = .0002) were then compared to those of the configural model (above). The resulting nonsignificant difference in the S-B chi-square values (Satorra & Bentler, 2001) provides support for complete measurement invariance across GMs and GFs. Table 3 shows the standardized and unstandardized factor loadings on model latent constructs for GMs and GFs as derived from the final test of the measurement model. All hypothesized factor loadings were statistically significant for both halves of the dyad and there were no crossloadings.

Third, structural invariance was tested using a procedure analogous to that used for examining measurement invariance. With all of the same loading constraints that were imposed in the final model of the test for measurement invariance left in place, all hypothesized causal paths within and across gender were then constrained to be equal across GMs and GFs. Although the resulting model fit indices were good (robust CFI = .91; robust RMSEA = .041; SRMR = .075; S-B  $\chi^2_{(379)}$  = 501.42, *p* = .00002), the  $\Delta \chi^2_{_{SB}}$  test between this model and the final measurement model was statistically significant following Satorra and Bentler's (2001) procedure. In addition, the LM diagnostics suggested releasing the constraints involving three pathways (dysfunctional parenting to externalizing problems; income to psychological distress; and health to psychological distress). In turn, these three constraints were released and data-model fit (robust CFI = .92; robust RMSEA = .039; SRMR = .073; S-B  $\chi^2_{(376)}$  = 484.32, p = .0001) improved statistically significantly as expected based on the LM tests. As shown in Table 4, all hypothesized pathways in the structural model were invariant by CGP gender except for the following: lower income to increased psychological distress was statistically significant for GFs only; increased health to lower psychological distress was statistically significant for GMs only; and the path from dysfunctional parenting to externalizing problems was statistically significant for both genders but of statistically greater magnitude for GMs.

Consistent with the FSM, the following pathways were statistically significant for GMs and GFs alike: dysfunctional parenting to both internalizing and externalizing problems; CGP psychological distress to dysfunctional parenting; marital distress to dysfunctional parenting CGP psychological distress to marital distress. Also in line with the FSM, the pathways from CGP psychological distress to both external and internalizing problems were nonsignificant for both GM and GF. These findings support two basic premises of the FSM: (a) The impact of a caregiver's psychological distress on children's adjustment is mediated by dysfunctional parenting; and (b) psychological distress has both direct and indirect effects (through marital distress) on dysfunctional parenting.

Table 4 further shows that the contextual factors in the model varied considerably in terms of their relations to CGP's psychological and marital distress. While family dysfunction and social support were related significantly to both psychological and marital distress for both genders; family income and CGP education were not significantly related to these constructs for either gender. Also, CGP health was not significantly related to marital distress for either gender.

The total effects of each latent construct on the respective CG outcomes of internalizing externalizing problems were computed as summarized in Table 5. The total effects on both CG outcomes associated with CGP's dysfunctional parenting, marital distress, family dysfunction, and social support were statistically significant for both GM and GF. While GM psychological distress had statistically significant total effects on both internalizing and

externalizing problems, GF psychological distress had a significant total effect on internalizing problems only. Although GM health had statistically significant total effects on both the internalizing and externalizing problems of CG, GF health was not related significantly to either outcome. Neither education nor family income had any statistically significant total effects on CG's adjustment outcomes.

#### Discussion

An expansion of the FSM which hypothesizes critical linkages between family contextual factors, CGP psychological distress, quality of the marital relationship, parenting practices used by CGP, and the psychological maladjustment of CG was tested by means of SEM. Also examined was whether or not the measurement and structural components of the proposed model were the same by CGP gender. Consistent with a wide body of research within the general parenting literature, and with a prior test of the FSM conducted with custodial GMs (Smith et al., 2008), the relation between indices of CG adjustment and the psychological distress reported by both members of the GM-GF dyad was mediated by their parenting practices. These results are significant because although the general principles of the FSM have been replicated across geographic locations, historical time, social contexts, parent gender, and development stage of children (Conger, Patterson, & Ge, 1995), few studies have examined these family-oriented models with such non-conventional parenting figures as CGP's (Barnett, 2008).

Another novel finding concerns the significant indirect effect that marital distress experienced by both members of the GM-GF dyad had on CG adjustment. Consistent with the "spillover hypothesis," higher levels of marital distress were related to greater dysfunctional parenting which, in turn, was associated with higher internalizing and externalizing symptoms among CG. Identical to the present findings, prior studies with biological parents have shown emotional unavailability, as well as harsh and inconsistent discipline, to account for part of the association between interparental conflict and child adjustment (Cummings & Davies, 2002).

There are several ways in which this particular pattern of interrelations might develop. One possibility is that that poor quality in both the marital relationship and parent-child relationship are due to deficient interpersonal skills of the caregiver (Kaczynski, Lindahl, Malik, & Laurenceau, 2006). This view is further supported by the present finding that CGP psychological distress was a direct antecedent of both marital distress and dysfunctional parenting. Obviously, some symptoms of anxiety and depression (e.g., negativity, emotional withdrawal, low energy) can be detrimental to any close relationship. Thus, marital and parent–child relationships may be mechanisms by which the effects of parent distress are communicated to other family members, including partners and children (Shelton & Gordon, 2008).

Another possibility, not specified in the proposed model, is that the joint effects of CGP psychological distress, marital distress, and dysfunctional parenting practices combine to produce a sense of emotional insecurity in CG that puts them at risk for adjustment problems. More specifically, exposure to negative affect and emotional unresponsiveness associated with both the caregiver's psychological distress and marital difficulties may motivate children to preserve emotional security in three ways that end up increasing their psychological problems: (1) heightened emotional reactivity characterized by deregulated distress; (2) involvement in and avoidance of conflict; and (3) threatening internal representations of the meaning of a caregiver's distress for the welfare of self and family (Cummings & Davies, 2002). Another possibility is that children learn dysfunctional behavior patterns by simply observing their caregivers (Kracinski et al., 2006). Because

parenting researchers have called attention to the negative effects of even relatively subtle expressions of marital distress, such as withdrawal from marital discussion (Cummings & Davies), future studies are needed to clarify the complex relations among CGP psychological well-being, marital distress, and CG adjustment difficulties.

The present findings also support the assumption in the parenting literature that caregiver behavior is a proximal mediator of more distal contextual forces, such as social and economic disadvantage within the family (Deater-Deckard, 1998). Family dysfunction and social support showed statistically significant total effects on CG internalizing and externalizing symptoms among CGP's of both genders. As hypothesized, these effects were indirect and mediated by the direct influence of these contextual factors on the psychological and marital distress of CGPs.

The pattern of distal effects associated with CGP health, however, differed by gender such that CGP health had a significant total effect on CG adjustment among GMs only. Because women are typically the primary caregiver in the family, GMs may feel particularly distressed about the effect of diminished health and energy on their ability to fulfill the caregiver role (Dolbin-MacNab, 2006). In contrast, household income was significantly associated with psychological distress among GF only, which may be understood in view of qualitative research where custodial GFs placed great emphasis on the importance of economic stability to the extent that sufficient income seemed to be correlated with psychological well-being (Bullock, 2005). Because men are socialized to see themselves as breadwinners, the provision of tangible family resources may be a self-imposed expectation among custodial GFs.

Gender differences were also found in terms of mean level comparisons along the indicator variables of the proposed model. In line with the view that GMs have more at stake as the family's primary caregiver, they reported significantly higher levels of anxiety, marital distress, low attachment, use of harsh discipline, anger at the CG's biological parent, and boundary ambiguity than did their husbands. Also, self-rated health was significantly lower among GMs. The combined findings of the present study suggest that, even though custodial GMs and GFs differ in terms of the absolute degree of stress they experience from caregiving, the key antecedents and outcomes of these stressors are quite similar.

#### **Practice Implications**

The results of this study with a sample of married CGPs are important because, in addition to the rising numbers of grandparent-headed households, only about 25 per cent of U.S. families comprise the cultural ideal of children living with married biological parents (Simons, Chen, Simons, Brody, & Cutrona, 2006). Thus, knowing how key family processes are related to the psychological well-being of all members of non-traditional child-rearing families is critical to developing appropriate interventions.

The extent of similarity found between custodial GMs and GFs regarding both the measurement and structural aspects of the proposed model, suggests that engaging GFs in treatment and improving their awareness of their impact on CG psychological functioning should be a top priority (Kane & Garber, 2004). As custodial GFs become more aware of their importance in family and CG functioning, they may become more motivated to change their parenting behavior in order to promote positive CG adjustment (Kracinski et al., 2006).

In line with a family systems perspective, our findings support the view that functioning in one part of the family has implications for the functioning of other family sub-systems. In particular, our findings suggest that reducing levels of GM and GF distress is important not only for improving the psychological health of the CGP but also because it may improve the

efficacy of interventions that are targeting the CG's behavioral problems (Deater-Deckhard, 1998). Our findings also underscore the proposition that difficulties in the caregiver-child relationship are hard to extinguish if the quality of the marital relationship is poor (Erel & Burman, 1995). Thus, it is as important for clinicians to assess and modify the GM-GF relationship as is it to assess the CGP-CG relationship (Cummings & Davies, 2002). Like past studies with biological parents, our findings highlight the fact that these family dynamics occur in the general population and not only in pathological families (Cummings et al., 2005; Elgar, Mills, McGrath, Waschbusch, & Brownridge, 2007; Papp et al., 2005). Moreover, when CGPs seek services for a CG, they may also be using this as a way of obtaining help for themselves (Oliver-Kelch, 2008).

Our findings also point to the significant role that contextual forces such as family dysfunction associated with the CG's biological parent and inadequate social support may play in influencing the well-being of CGPs and CGs alike. Thus, in addition to participating in parent training and education programs, some custodial grandfamilies may also benefit from structural and intergenerational family therapies that establish, redefine, and strengthen the hierarchy of the parental subsystem and clarify family roles and boundaries (Oliver-Kelch, 2008).

#### **Limitations and Future Directions**

Several limitations of the present study should be acknowledged. Because the sample was restricted to both White and Black married CGPs who volunteered to participate as a couple, it is unclear if the findings are generalizable to CGP dyads from other races, dyads that are unmarried but co-habitating, and those where one or both members chose not to participate. Moreover, our findings do not generalize to married grandparents who co-parent with the CG's offspring. Also, the sample size precluded examining such variables as CG gender, age, and race as moderators.

Although the measurement aspects of the proposed model were totally invariant with respect to CGP gender, some measurement concerns are noteworthy. As mentioned earlier, a few measures had low internal consistency. Also, because all measures were self-reported it may be that the observed patterns of covariation are due to shared method variance associated with self-report data. An important exception, however, is that the same overall pattern of relations was found for GMs and GFs even though data regarding the CG's adjustment were reported by GMs only. The inclusion of GF and CG data was important in the present study because previous investigations have mostly relied on single informants (typically mothers) when collecting data on symptoms in parents and children. In turn, this creates a major methodological concern because caregivers with normal mood (Elgar et al., 2007). Thus, the present finding for custodial GFs are particularly informative given that the potential artifact of shared method variance was avoided. Nevertheless, future studies are needed with data from multiple informants that are obtained by a variety of methods.

Some conceptual issues not covered in the present model should be addressed in future research. Despite numerous longitudinal studies in the parenting literature supporting the causal relations described here, future longitudinal and experimental intervention studies conducted with CGPs *per se* are needed to confirm the hypothesized causal pathways. Our cross-sectional findings do not rule out the alternative possibility that some of the proposed pathways may be reversed or that reciprocal processes are involved.

Future research is also needed to further define and elaborate upon some of the latent constructs in the proposed model. For example, marital quality (as it relates to children's adjustment) may be defined in many ways other than the measure of marital distress used

here (Erel & Burman, 1995). Also, our results may have been attenuated by using such broadband indicators of CG adjustment as internalizing and externalizing symptoms, given that patterns of association between caregiver and child psychopathology may vary across specific clinical disorders (Connell & Goodman 2002). The narrowness of our single item indicators of CGP health and income may similarly explain why these factors were not more salient.

Future studies should also explore some key variables that might have influenced the present findings. For example, many CGPs are responsible for more than one CG and it is possible that the pattern of findings reported here is "child specific" in families with multiple CGs (Deater-Deckhard, 1998). It is also possible that a "sensitive period" exists where exposure to the caregiver's distress has its greatest impact on a CG's adjustment (Kane & Garber 2004). It is also worth exploring whether or not the level of distress within one or both members of the CGP marital dyad bears is related to CG adjustment. Relevant constructs absent from our model include ideational factors (e.g., CGP's values and beliefs), cultural influences, socialization agents outside the family, CG characteristics (e.g., temperament, social-cognitive skills, duration of adjustment problems), and genetic influences.

Despite these limitations, the findings call attention to how the pattern of relations between different members of custodial grandfamilies converges to influence the overall adjustment of CG in these families. Interventions that fully account for these complex processes and recognize the needs of the entire family should be the goal of future research, practice, and policy.

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**Figure 1.** Adapted version of the Family Stress Model for custodial grandfamilies

Table 1

Descriptive Demographic Statistics for Study Sample (N=193)

Variable	u	%	Variable	u	%
Sampling Frame			Income <sup>c</sup>		
Convenience	109	56.5	< \$10,000	8	4.1
Probability	84	43.5	\$10,000 - \$20,000	27	14.0
Reasons for Care <sup>a</sup>			\$21,000 - \$35,000	57	29.6
Parent Substance Abuse	100	51.8	\$36,000 - \$50,000	42	21.8
Parent Incarceration	91	47.2	\$51,000 - \$75,000	37	19.2
Removed from Parent Custody	61	31.6	\$76,000 - \$125,000	11	5.7
Physical or Emotional Abuse	57	29.5	> \$125,000	33	1.6
Parent Mental /Health	56	29.0	Not Reported	8	4.1
Child Abandonment	47	24.4	Residential Locale		
Teen Pregnancy	35	18.1	Large City	38	19.7
Parent Physical Health	26	13.5	Small City or Suburb	70	36.2
One Parent Deceased <sup>b</sup>	6	4.7	Small Town	34	17.6
Other Reasons	30	15.5	Rural	49	25.4
Grandmother Race			Other	2	1.0
White	124	64.2	Legal Arrangements with Grandchild	dchild	
Black	69	35.8	Formal Custody	71	36.8
Grandfather Race			Guardianship	55	28.5
White	123	63.7	Adoption	31	16.1
Black	70	36.3	Foster Parent	9	3.1
Relationship of Grandmother to			Currently Seeking	11	5.7
Grandchild's parent			None	19	9.8
Daughter/Step-Daughter	132	68.4			
Son /Step-Son	61	31.6			

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 $^{c}$ Missing data were less that 10% and mean substitution was used for imputation in data analyses.

 $\boldsymbol{b}$  Grandparents were excluded from study if the deceased parent was their own offspring.

# Table 2

Dyadic Means, Standard Deviations, Paired t-test Comparisons, and Bivariate Correlations for Indicator Variables.

	Grandmothers	others	Grandfathers	athers		
Indicator Variables	н	SD	Ш	SD	t value	correlation
Depression	10.5	8.9	9.3	6.9	1.55	.12
Anxiety	2.0	1.0	1.6	0.8	5.08***	.23***
Marital Distress	10.6	3.0	10.0	2.6	$2.22^{*}$	.29***
Reinforce Parent	11.5	3.9	11.5	3.7	0.02	.32***
Attachment	13.7	4.0	12.7	3.5	$2.96^{***}$	.35***
Inconsistent Discipline	<i>T.T</i>	2.5	<i>T.T</i>	2.2	0.05	.19**
Harsh Discipline	7.3	2.5	6.5	2.0	3.59***	.19**
Anger	12.6	3.8	11.9	3.5	2.45*	.45***
Boundary Ambiguity	9.0	2.6	8.4	2.3	2.89 <sup>***</sup>	.37***
Expressive Support	26.4	3.8	26.1	3.2	1.18	.24***
Support Satisfaction	3.3	1.0	3.4	1.0	1.25	.13
Physical Health	3.2	0.9	3.5	1.0	2.58 <sup>**</sup>	.13
Education	4.8	1.1	4.8	1.2	0.12	.47***
* p < .05						
** p < .01						
p < .005						
**** $p < .001$						
p < .001						

#### Table 3

Estimated Unstandardized and Standardized Factor Loadings for Custodial Grandmother and Grandfather Dyads (N = 193)

	Grandm	others	Grandfathers	
Latent Factors and Indicators	Unstandardized	Standardized	Unstandardized	Standardized
Grandchild Internalizing				
Problems				
Emotional Symptoms	1.00	.74		
Peer Problems	.82	.69		
Grandchild Externalizing				
Problems				
Conduct Disorder	1.00	.83		
Hyperactive/Inattentive	1.16	.76		
Grandparent Psychological				
Distress				
Anxiety	1.00	.66	1.00	.59
Depression	12.12	.86	12.12	.84
Dysfunctional Parenting				
Ineffective Discipline $^{\dagger}$	.42	.58	.42	.67
Harsh	1.00	.57	1.00	.62
Inconsistent	1.16	.67	1.16	.66
Low Warmth $^{\dagger}$	1.00	.60	1.00	.70
Attachment	1.00	.83	1.00	.82
Reinforcement	.93	.78	.93	.74
Social Support				
Satisfaction	1.00	.63	1.00	.55
Availability	3.72	.65	3.72	.61
Family Dysfunction				
Anger	1.00	.97	1.00	.95
Boundary Ambiguity	.45	.64	.45	.64

*Note*. All factor loadings were statistically significant (p < .05). One indicator per factor had its loading fixed at 1.00 to establish the factor scale (the same scale indicator was chosen for GMs and GFs).

 $^{\dagger}\mathrm{Values}$  in this row represent loadings on the second order Dysfunctional Parenting factor.

Estimated Unstandardized and Standardized Path Coefficients for Grandparent Dyads (N = 193)

	Grandm	others	Grandfa	athers
Hypothesized Pathway	Unstandardized	Standardized	Unstandardized	Standardized
Dysfunctional Parenting to Externalizing Problems	.73 *	.81	.37 *	.32
Dysfunctional Parenting to Internalizing Problems	.33*	.40	.33*	.31
GP Psychological Distress to Externalizing Problems	40	12	40	10
GP Psychological Distress to Internalizing Problems	.07	.02	.07	.02
GP Psychological Distress to Dysfunctional Parenting	1.48*	.41	1.48*	.41
GP Psychological Distress to Marital Distress	.91*	.20	.91*	.18
Marital Distress to Dysfunctional Parenting	.27*	.34	.27*	.38
Family Dysfunction to GP Psychological Distress	.03*	.15	.03*	.17
Social Support to GP Psychological Distress	24*	25	24*	27
GP Health to GP Psychological Distress	24 *	- 03	05	10
GP Education to GP Psychological Distress	03	05	03	07
Income to GP Psychological Distress	00	01	07 *	28
GP Education to Marital Distress	.01	.00	.01	.01
GP Health to Marital Distress	.17	.06	.17	.07
Income to Marital Distress	.09	.06	.09	.07
Family Dysfunction to Marital Distress	.26*	.33	.26*	.34
Social Support to Marital Distress	-1.32*	30	-1.32*	30

Note. Group inequalities shown in italics are based on Lagrange Multiplier test results

Covariances between exogenous variables available upon request.

\* p < .05.

#### Table 5

Estimated Unstandardized and Standardized Total Effects of Antecedent Constructs on Target Grandchild's Externalizing and Internalizing Problems for Grandparent Dyads (N = 193)

	Grandm	others	Grandfa	athers
Antecedents	Unstandardized	Standardized	Unstandardized	Standardized
EXTERNALIZING PROBLEMS <sup>a</sup>				
Dysfunctional Parenting	.73*	.81	.37*	.32
Grandparent Psychological Distress	.86*	.27	.25	.06
Marital Distress	.20*	.28	.10*	.12
Family Dysfunction	.07*	.13	.03*	.05
Social Support	47*	14	19*	05
Grandparent Health	17*	08	.01	.00
Grandparent Education	02	01	01	00
Annual Income <sup>a</sup>	.01	.01		
INTERNALIZING PROBLEMS <sup>a</sup>				
Dysfunctional Parenting	.33*	.40	.33*	.31
GP Psychological Distress	.64*	.21	.64*	.17
Marital Distress	.09*	.14	.09*	.12
Family Dysfunction	.04*	.08	.04*	.07
Social Support	27*	09	27*	08
Grandparent Health	14*	07	02	01
Grandparent Education	02	01	02	01
Annual Income <sup>a</sup>	03	03		

\* p < .05

<sup>a</sup>as reported by GMs only