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Deborah M. Whitley

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Depression, Social Support, and Mental Health: A Longitudinal Mediation Analysis in African American Custodial Grandmothers

Deborah M. Whitley¹, Susan J. Kelley¹, and Dorian A. Lamis²

Abstract

Custodial grandparents raising grandchildren experience intense levels of stress that can lead to depression and other forms of psychological distress. Drawing on a coping model of family stress, adjustment, and adaptation, we explored the relationship between depression and mental health quality of life mediated by social support and moderated by grandparent’s age. The sample consisted of 667 African American custodial grandmothers, dichotomized into two age groupings, ≤55 (n = 306) and 55+ (n = 361). All grandmothers participated in a 12-month support intervention. The prospective analysis revealed social support was a mediator in the association between depressive symptoms and mental health quality of life for older African American grandmothers; however, this same relationship did not hold for their younger counterparts. Study limitations and future research directions are discussed.

Keywords

grandparents, grandmothers raising grandchildren, psychological distress, mediation analysis

¹Georgia State University, Atlanta, GA, USA
²Department of Psychiatry and Behavioral Sciences/Grady Health System, Emory University School of Medicine, Atlanta, GA, USA

Corresponding Author:
Deborah M. Whitley, Georgia State University, P.O. Box 3993, Atlanta, GA 30302, USA.
Email: dwhitley@gsu.edu
Over the past two decades, the well-being of grandparents raising grandchildren has emerged as a significant social issue for researchers, clinicians, and policy makers. The number of grandparents who become full-time, surrogate parents when biological parents are unavailable has risen 64% over the past 20 + years (Kreider & Ellis, 2011). Currently, there are approximately 2.7 million grandparents raising grandchildren without either birth parent in the household, the majority being custodial grandmothers (62%; U.S. Census Bureau, 2014). Despite the years of research on grandparent-headed families, our understanding about this phenomenon comes from research that primarily includes low-income grandmothers of color, a group that is disproportionately represented in the population (U.S. Census Bureau, 2014). Early research tended to aggregate individual characteristics of grandparent caregivers, with limited attention given to differences in age, gender, income, education, or marital status as possible contributors to emotional well-being. For example, current understanding about adult development suggests younger grandparents may have different social and familial needs and reactions to life challenges in comparison with older grandparents. However, there is little evidence that supports or refutes this contention. The present study tries to disaggregate custodial grandparents as a homogeneous group by exploring if age is associated with differences in social support and mental health outcomes.

A confluence of factors, including the demands of parenting later in life, concerns about the adult children who are unable to parent due to serious personal issues (e.g., substance abuse, behavioral health problems, incarceration), and raising grandchildren with emotional and developmental challenges, may contribute to a diminished mental health quality of life for custodial grandparents. However, providing formal or informal support services to target specific individual and family needs are associated with reduced negative mental health effects (Hughes, Waite, LaPierre, & Luo, 2007; Landry-Meyer, Gerard, & Guzell, 2005). The most prevalent services designed to address the needs of grandparent caregivers range from support groups for grandparents or grandchildren, family case management, information and referrals to community agencies, and navigator services to guide caregivers through the maze of large service agencies. Generally, support services are designed without targeting any particular segment of the grandparent population. The one possible exception is grandparents raising grandchildren with developmental disabilities, where very specialized information and support services are offered to them in response to the grandchild’s needs (Force, Botsford, Pisano, & Holbert, 2000). In this study, we examine the relationship between depression and mental health quality of life mediated by social support among custodial grandmothers. We propose using age as a moderator because studies suggest expected and unexpected changes and disruptions in one’s aging life course can influence perceptions of social support and psychological well-being (Willis & Schale, 2005). Similar conclusions are found with studies specifically involving custodial grandmothers (Prokos & Keene, 2012; Purcal, Brennan, Cass, & Jenkins, 2014).
Literature Review

Much of current research on custodial grandparents has addressed emotional well-being or mental health quality of life. We define mental health quality of life as the ability to manage and cope with life stresses while sustaining or enhancing family relationships and social functioning (Ryff & Keyes, 1995). Studies focusing on stress and depression provide compelling evidence that custodial grandparents have a propensity for acquiring relatively high levels of depressive symptoms (Blustein, Chan, & Guanais, 2004; Kelley, Whitley, & Campos, 2013; Musil et al., 2011; Musil, Warner, Zauszniewski, Wykle, & Standing, 2009; Szinovacz, DeViney, & Atkinson, 1999). Using a nationally representative sample, researchers found that custodial grandmothers have significantly elevated levels of depressive symptomatology when compared with noncustodial grandmothers, even when controlling for key demographic and background variables (Fuller-Thomson & Minkler, 2000). Other researchers employing a relatively large, nonrepresentative sample of African American grandmothers found that nearly 40% scored in the clinically elevated range for depression (Kelley et al., 2013). However, according to the Centers for Disease Control and Prevention (CDC), women aged 40 to 59 have the highest reported levels of depression (12%) across all age groups, particularly when compared with women aged 60 + (7%; CDC, 2012). Our findings will provide evidence to determine if the general pattern of mental health outcomes for women by age is also accurate for our sample of grandmothers.

The antecedents to raising one’s grandchildren are typically a source of stress and often include parental substance abuse, mental health issues, abandonment, incarceration, child abuse and neglect, as well as the death of one or both birth parents (Kelley et al., 2013; Leder, Grinstead, & Torres, 2007). Because of these traumatic events and family stressors, the grandchildren may present with challenges frequently manifested as developmental delays, and medical, behavioral, or emotional problems (Kelley, Whitley, & Campos, 2011; Smith & Palmieri, 2007; Whitley & Kelley, 2008). In a study examining the effects of an intervention support service with custodial grandmothers raising grandchildren, child behavior problems significantly contributed to the grandmothers’ increased psychological distress levels (Kelley et al., 2013). In addition, while a grandchild may reside with the grandparents, ongoing family stress may occur if the birth parents make infrequent or unpredictable and disruptive appearances (Sands & Goldberg-Glen, 2000; Weber & Waldrop, 2000).

Social support includes both formal (e.g., professionals) and informal networks (e.g., family, friends), to promote adaptation to serious life events, while enhancing positive development (Dunst, Trivette, & Deal, 1988). Researchers have consistently found social support acts as a buffer to stress, which benefits health outcomes (Cohen, 2004; Cohen & Wills, 1985). Just the perceived availability of support is sufficient to reduce stress outcomes, including depression.
(Kawachi & Berkman, 2001). Studies specifically focusing on grandparent caregivers have studied a similar question in regard to coping and health (Baird, 2003; Hughes et al., 2007; Kelch-Oliver, 2011; Landry-Meyer et al., 2005; Park, 2009). The findings suggest inadequate social support is linked to poor physical and psychological well-being among grandparent caregivers, prompting service recommendations to increase grandparents’ access to interventions that affect perceptions of emotional support (Kelley, Yorker, Whitley, & Sipe, 2001; Smith, 2003; Strozier, 2012). Certain personal characteristics or features in the social environment may place them at increased risk for not receiving adequate assistance. For example, single custodial grandmothers tend to report less emotional support than married caregivers, making them at risk for poor mental health outcomes (Conway, Jones, & Speakes-Lewis, 2011; Dolbin-MacNab, 2006; Musil et al., 2011). Similarly, grandparents overwhelmed with multiple caregiving responsibilities may have limited access to former social networks (friends, neighbors), thereby reducing their options for obtaining different forms of support (informational, emotional, or material aid). A few studies have shown mixed results about the benefits of social support for custodial grandparents. Researchers indicate some grandparents are reluctant to seek professional services due to past negative experiences with agencies, or they hold a general indifference to them (Gerard, Landry-Meyer, & Roe, 2006; Hayslip & Shore, 2000). Interestingly, early research studies promoting support services often do so without taking into account possible distinctions in personal needs or characteristics (age, marital status) that could demonstrate variations in outcome. Therefore, it is unclear how one’s personal descriptors influence perceptions of support and mental health effects. For the present study, we define social support as the grandmothers’ perceived availability or helpfulness of known sources of assistance based on identified formal and informal sources.

Using age as a moderator variable in the present study may provide insight to the varying ways grandparents emotionally cope with their caregiving roles. Presently, studies that show variances in grandparent caregiving outcomes by age have been scant. Earlier works by Conway et al. (2011) and Kelley et al. (2013) suggest younger caregiving grandmothers tend to report higher levels of emotional distress, including depression, when compared with older caregivers. It was suggested these differences occur because grandmothers may experience a sense of loss when personal and professional goals have gone unrealized due to caregiving responsibilities. Younger grandmothers may also attribute a different meaning to family caregiving, perhaps finding it less gratifying than older grandmothers (Kelley et al., 2013). Just as grandmothers of varying age may have different emotional needs and responses to caregiving responsibilities, there is no reason to assume all grandmothers will respond similarly to social support interventions. A unique perspective of the present study is acknowledging grandparent caregivers’ age differences to illustrate variances in social support effects specific to mental health-related quality of life.
We selected 55 years as the target age to dichotomize our sample group (i.e., ≤55 years and 55+ years) because nationally, the largest percentage (40%) of grandparents responsible for parenting their grandchildren is between 50 and 59 years of age (Ellis & Simmons, 2014).

**Theoretical Perspectives**

The current study drew on the coping model of family stress, adjustment, and adaptation (McCubbin, Thompson, Thompson, & Frome, 1998) to conceptualize how stressors placed on the family system might influence the psychological well-being of grandmothers raising grandchildren. The model provides a framework for understanding how families cope or endure when faced with adversity (DeMarco, Ford-Gilboe, Friedmann, McCubbin, & McCubbin, 2000). Moreover, it considers how family demands produce change in the family system and how resources (e.g., social support) may affect individual or family adaptation and well-being (e.g., mental health quality of life). Family demands, if not reduced or mediated by resources, may increase the likelihood of negative outcomes, including compromised mental health quality of life.

**Research Aim and Hypotheses**

Our aim was to explore the relationship between depression and mental health quality of life mediated by social support, among younger (≤55) versus older (55+) African American grandmothers raising grandchildren. Understanding the associations among these variables may discern differences in the development and enhancement of mental health practice strategies for African American grandmothers who are the primary caregivers for their grandchildren. We hypothesized the following for younger (≤55) and older (55+) grandmothers: (a) greater baseline depressive symptoms would predict lower levels of perceived social support and decreased mental health quality of life at 12-month follow-up, (b) increased social support would predict higher levels of mental health quality of life at 12-month follow-up, (c) social support would significantly mediate the association between baseline depressive symptoms and mental health quality of life at 12 months, and (d) if social support is found to mediate the association between baseline depressive symptoms and mental health quality of life at 12 months in both groups, it is expected that age will moderate this mediated effect such that it will be larger for older grandmothers than younger grandmothers.

**Method**

In the current study, we examined baseline depression scores with 12-month data on social support and mental health quality of life measures from a current study.
investigating the effectiveness of a community-based intervention to enhance the general mental and physical health of grandparent caregivers. All of the grandmothers in the current study participated in a program that offered support services by a professional, multidisciplinary staff. Program services included monthly support groups, individual, home-based case management, and direct referrals to community-based resources for material aid (food, clothing, and limited monetary support). To be an active participant in the study, grandmothers had to participate in the case management services staffed by nurses and social workers. Participation was not mandated for the monthly group meetings or other services.

The grandmothers were recruited from community agencies serving children and families in a large metropolitan area located in the southeastern United States. Eligibility criteria included grandparents who were providing full-time parenting to one or more grandchildren aged 16 years and younger. Families with a coresiding birth parent were ineligible for the study. We also excluded grandfathers (<1%) from all analyses, given there were so few enrolled in the program. The grandmothers had to reside within a 20-mile radius to the southeastern university where the study was undertaken. The grandmothers signed informed consent letters as part of the research protocol approved by the university’s institutional review board. No grandmothers refused to participate in the study after meeting eligibility criteria. Over the life of the program, 740 grandparent-headed families were recruited and enrolled; the current analysis included 667 custodial grandmothers (92% participation rate). The grandparents who terminated from the study did so for such reasons as grandchildren returned to the care of the birth parents, grandparents moved out of the service area, illness or death of the caregiving grandparent, or scheduling difficulties for home visits. Trained graduate students administered all study measures to participants in their homes prior to introducing the service intervention and again 12 months later when the intervention was completed. All questionnaires were read aloud to participants due to the relatively low educational level of the sample. Participants received $40 as compensation for their time.

**Sample Characteristics**

At baseline, the full sample consisted of grandmothers \( N = 667 \) who ranged in age between 33 and 83 \( (M = 55.90; SD = 8.76) \), which mirrors the national age range of caregiving grandparents. There were 306 young grandmothers \( (\leq 55 \text{ years}) \) and 361 older grandmothers \( (55 + \text{ years}) \). Participants of any socioeconomic status and racial-ethnic group were eligible for the study; however, because almost all participants were African American (98.5%), other racial-ethnic groups were excluded from the analyses. The sample included 432 (64.9%) grandmothers who were raising more than one grandchild and 235 (35.2%) grandmothers who were raising only one grandchild, with the mean
number of grandchildren in their care of 2.40 \((SD = 1.52; \text{ range } 1–8)\). In the sample, 269 (40.3\%) grandmothers reported that they were employed, whereas 398 (59.7\%) indicated that they were either unemployed or retired. In addition to baseline physical health, we also included grandmother’s employment status (currently employed or not employed) and number of grandchildren as covariates in the analyses, given that these variables may potentially affect their level of mental health quality of life.

**Measures**

The *Brief Symptom Inventory* (BSI; Derogatis & Savitz, 1999) is a 53-item self-assessment of nine psychological symptom dimensions, which was administered at baseline. Depression symptom severity was assessed using the 6-item depression subscale of the BSI. Respondents were asked to rate their level of discomfort from the following six symptoms over the past week (from 0 = *not at all* to 4 = *extremely*): “feeling lonely,” “feeling blue,” “feeling no interest in things,” “thoughts of ending your life,” “feeling hopeless about the future,” and “feelings of worthlessness.” The depression subscale of the BSI was scored by transforming raw scores to T scores that can range from 30 to 80. BSI depression subscale scores of 63 or greater indicate clinically relevant depressive symptoms suggestive of elevated distress at a level warranting further evaluation and possible clinical intervention. The depression subscale of the BSI has demonstrated good internal validity and reliability among African Americans (Hoe & Brekke, 2008; Kelley et al., 2013). In the current study, the estimates of internal consistency reliability for the depression subscale of the BSI in the younger and older grandmothers were .85 and .81, respectively.

The *Family Support Scale* (FSS; Dunst, Trivette, & Hamby, 1994) assessed the helpfulness of various sources of formal and informal support sources for families raising children. Sources of support include assistance from family or friends, coworkers, and social groups. The FSS includes 18 items that are rated on a 5-point Likert scale from 0 (*not at all helpful*) to 4 (*extremely helpful*). Sample items include “My husband/wife,” “My relatives,” “My spouse or partner’s relatives,” and “Professional helpers.” Single item scores are summed to determine the total score, with higher scores indicating greater social support and ranging from 18 to 90. The FSS has demonstrated adequate validity and reliability among grandparents raising grandchildren (Leder et al., 2007). The internal consistency reliability coefficients for the FSS among younger grandmothers at baseline and 12-month follow-up were .75 and .77, respectively, whereas the reliability coefficients in older grandmothers were .73 and .74 at baseline and 12-month follow-up, respectively. The scale has been validated with custodial grandparents (Littlewood, Swanke, Stroizer, & Kondrat, 2013).

The *Short Form-36 General Health Survey* (SF-36; Ware, 1993) is a 36-item self-report measure, administered at baseline and 12-month follow-up,
measuring physical, mental, and social health that has been assessed across
groups of various socioeconomic backgrounds and diagnoses (Ware, 1999).
The SF-36 comprises eight subscales: physical health, role limitations due to
physical problems, social functioning, bodily pain, general mental health, role
limitations due to emotional problems, vitality, and general health perceptions.
These eight subscales are summarized into physical and mental health higher
order factors, which were identified during the early years following the devel-
OPment of the SF-36 (McHorney, Ware, & Raczek, 1993; Ware, Kosinski,
Bayliss, & McHorney, 1995).

For the purposes of the current study, the mental component summary
(MCS) measure, which consists of 14 items on vitality (4 items), role limitations
due to emotional problems (3 items), social functioning (2 items), and mental
health stress (5 items) subscales, was used to measure mental health quality of
life in all analyses. The MCS employs a Likert scale format ranging from 0 to
100, with higher scores indicating better mental health-related quality of life
(Ware & Gandek, 1998; Ware & Kosinski, 2001). The vitality subscale assessed
energy level and fatigue; the role limitations due to emotional problems subscale
assessed health-related limitations in occupational or routine activity function-
ing; the social functioning subscale examined the impact of psychological prob-
lems on social activities; and the mental health stress subscale assessed
psychological health dimensions (Ware, 1993). Past research (Hu, 2007; Ware
& Gandek, 1998) has demonstrated good internal consistency reliability for the
MCS. The reliability coefficient in the current sample was .89 at baseline and .80
at 12-month follow-up for younger grandmothers, whereas the Cronbach alphas
among older grandmothers at baseline and 12-month follow-up were .86 and
.78, respectively.

**Intervention**

The multidisciplinary intervention is designed to improve grandparents’ percep-
tions of helpfulness by social support sources and mental health well-being while
raising their grandchildren in parent-absent homes. A major premise of the
intervention is that access to essential resources can help to reduce or minimize
stress and, thereby, improve physical and emotional well-being. The intervention
was developed based on the results of a needs assessment conducted by the
research team, as well as findings in the literature.

Each family was assigned a master’s prepared social worker and a registered
nurse who each conducted monthly home visits over the course of 12 months.
Collaborating with grandmothers, social workers provide home-based, indivi-
dualized case management services. Specific case management activities include
assessing individual, family, and community strengths; identifying and prioritiz-
ing family challenges; conducting service referrals; and developing and monitor-
ing service plans. Social workers also facilitate monthly support group meetings
and parenting classes designed to enhance peer support and share strategies for coping with the challenges of raising grandchildren affected by traumatic life events (e.g., parental neglect or maltreatment). Participants also receive an initial comprehensive health assessment by a registered nurse, followed by the joint development of health-related goals. Because of the high rates of chronic disease in this population (e.g., diabetes, hypertension, obesity; Kelley et al., 2013), nurses work with participants on effective self-management of their diseases and monitor their health indices (e.g., blood pressure, cholesterol, glucose). Referrals are made to primary care health providers and specialists, as needed.

**Multigroup Mediation Analyses Strategy**

Study hypotheses and mediation analyses of intervention effects for the younger (≤55) and older (55+) grandmothers were evaluated in a single multigroup, unsaturated, path analytic model, using Mplus v7.0 (Muthen & Muthen, 1998–2012). To test the path model across the two age groups, a full structural equation model (SEM) was estimated with a measurement model including baseline grandmother’s physical health, employment status, and number of grandchildren as covariates, allowing for evaluation of the overall fit of the theoretical model to the data. The root mean square error of approximation (RMSEA), the comparative fit index (CFI), the Tucker–Lewis index (TLI), and the standardized root mean square residual (SRMR) were all used to evaluate model fit. As recommended by Hu and Bentler (1999), values under .08 for the RMSEA, values above .95 for the CFI or TLI, and values under .08 for the SRMR were considered a satisfactory fit of the model to the data.

The multigroup SEM was selected because it can incorporate all of the hypotheses concurrently and allows for estimation of the indirect effects as well as the direct effects across groups in one model (Pearl, 2012). Significance of an indirect (mediated) effect was tested using the percentile bootstrap with 3,000 draws to generate empirical confidence intervals for the mediated paths, one of the methods recommended for evaluating indirect effects (Hayes & Scharkow, 2013; MacKinnon, 2008). In all analyses, missing data were accommodated with the full information maximum likelihood (FIML) estimation feature in Mplus. When data are missing at random, FIML yields less biased and superior parameter estimates (Enders, 2010; Graham & Coffman, 2012). Given that the mediation analyses were conducted within the two age groups concurrently, and mediation in both groups is significant, we compared the strengths of the indirect effects using the Wald test.

**Results**

Means, standard deviations, proportion missing, and ranges for the primary study variables at the two time points (baseline and 12-month follow-up) for
younger (≤55) and older grandmothers (55+) are reported separately to show differences on study variables between the two groups (see Table 1). Of the total sample, 105 grandmothers scored 63 or higher (15.7%) on the BSI Depression subscale at baseline. Sixty-eight younger grandmothers (22.2%) and 37 older grandmothers (10.2%) scored in the clinical range for depression. These results show a similar distribution pattern as the general population of women, but at higher rates (CDC, 2012). In Table 2, correlation coefficients among study variables are presented separately for the two age groups. These statistics are based on FIML estimation and thus represent the best estimates of the population parameters, after adjusting for missing data. In both groups, all hypothesized associations were significant in the expected direction at the bivariate level ($p < .01$). Specifically, as anticipated, baseline depressive symptoms prior to receiving intervention services were negatively associated with levels of social support and mental health quality of life at 12-month follow-up in younger and older grandmothers. Moreover, as hypothesized, social support was positively correlated with levels of mental health quality of life at 12-month follow-up in the two groups.

To further test the predictive effects of the intervention among the study variables in the context of the mediation model, a prospective multigroup (younger vs. older) SEM was constructed after adjusting for exogenous

<table>
<thead>
<tr>
<th>Table 1. Means, Standard Deviations, and Ranges of Study Variables.</th>
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<tbody>
<tr>
<td><strong>Younger (≤55)</strong> Grandmothers ($n=306$)</td>
</tr>
<tr>
<td><strong>$M$ (SD) $n/%$</strong></td>
</tr>
<tr>
<td>Baseline physical health</td>
</tr>
<tr>
<td>Employment status (Yes)</td>
</tr>
<tr>
<td>Number of grandchildren</td>
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<tr>
<td>Baseline depressive symptoms</td>
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<td>Family support</td>
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<tr>
<td>Baseline</td>
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<td>12-month</td>
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<tr>
<td>Mental health QOL</td>
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<tr>
<td>Baseline</td>
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<tr>
<td>12-month</td>
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</tbody>
</table>

Note. QOL = quality of life; Prop Miss = proportion of missing data.

*p < .05. **p < .01.
covariates (i.e., baseline physical health, employment status, number of grandchildren), which yielded a satisfactory fit to the data, as assessed by the RMSEA = .066, 90% CI [0.020, 0.112], the CFI = .992, the TLI = .900, and the SRMR = .015.

**Grandmothers ≤ 55 Years of Age**

In testing the intervention’s indirect effect of perceived social support in the prospective relation between baseline depressive symptoms and 12-month mental health quality of life in grandmothers ≤ 55 years of age, Figure 1 shows the standardized coefficients. Contrary to expectation and Hypothesis 1, baseline depressive symptoms were not predictive of 12-month perceived social support, \( ab = -0.10, 95\% \text{ CI } [-0.22, 0.15] \), or mental health quality of life, \( ab = -0.12, 95\% \text{ CI } [-0.28, 0.41] \), in the group of younger grandmothers. Furthermore, Hypotheses 2 and 3 were also unsupported in the group of younger grandmothers. Specifically, social support was not related to 12-month mental health quality of life, \( ab = 0.06, 95\% \text{ CI } [-0.02, 0.15] \), nor was it a significant mediator in the relation between baseline depressive symptoms and 12-month mental health quality of life.

**Grandmothers 55+ Years of Age**

Conversely, among the group of older grandmothers and consistent with Hypothesis 1 (see Figure 2), higher levels of depressive symptoms at baseline predicted less perceived social support, \( ab = -0.20, 95\% \text{ CI } [-0.33, -0.07] \), and lower levels of mental health quality of life, \( ab = -0.15, 95\% \text{ CI } [-0.28, -0.02] \), at 12-month follow-up following the intervention services. Furthermore, as anticipated and in line with Hypothesis 2, more perceived social support predicted higher levels of mental health quality of life at 12-month follow-up,

<table>
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<tr>
<th>Measure</th>
<th>1</th>
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<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>1. Baseline depressive symptoms</td>
<td>−</td>
<td>−.15**</td>
<td>−.57**</td>
<td>−.19**</td>
<td>−.33**</td>
</tr>
<tr>
<td>2. Baseline family support</td>
<td>−.14**</td>
<td>−</td>
<td>.14*</td>
<td>.53**</td>
<td>.06</td>
</tr>
<tr>
<td>3. Baseline mental health QOL</td>
<td>−.55**</td>
<td>.15**</td>
<td>−</td>
<td>.22**</td>
<td>.48**</td>
</tr>
<tr>
<td>4. 12-Month family support</td>
<td>.19**</td>
<td>.45**</td>
<td>.20**</td>
<td>−</td>
<td>.19**</td>
</tr>
<tr>
<td>5. 12-Month mental health QOL</td>
<td>−.43**</td>
<td>.11*</td>
<td>.58**</td>
<td>.26**</td>
<td>−</td>
</tr>
</tbody>
</table>

*Note. Zero-order correlations are presented above the diagonal for grandmothers less than 55 years of age (n = 306); for grandmothers 55 and older (n = 361), below the diagonal. QOL = quality of life.

*p < .05. **p < .01.
In testing the indirect effect of perceived social support in the prospective relation between baseline depressive symptoms and 12-month mental health quality of life, the total effect of baseline depressive symptoms on 12-month mental health quality of life was negative and significant, with a point estimate of $-0.18$, 95% CI $[-0.31, -0.05]$, standardized estimate of $-0.18$.

Consistent with Hypothesis 3, this effect was significantly mediated by social support, $ab = -0.03$, 95% CI $[-0.05, -0.01]$, and revealed a small effect size for the indirect effect (Fritz, Taylor, & MacKinnon, 2012; Preacher & Hayes, 2011). The confidence interval excluded zero, indicating a significant indirect effect of baseline depressive symptoms on subsequent 12-month mental health quality of life via social support, supporting the mediation hypothesis. Furthermore, the standardized effect size for the indirect effect was $-0.03$, 95% CI $[-0.05, -0.01]$, indicating that mental health quality of life decreases by 0.03 standard deviations for every 1-SD increase in depressive symptoms indirectly via perceived social support. However, this small effect must be interpreted with caution when attempting to apply any meaning to it. Thus, our results suggest older grandmothers who exhibit higher levels of depressive symptoms view their sources of social support as less helpful, which ultimately contributes to lower levels of

Figure 1. Multiple-group SEM with standardized regression coefficients for younger grandmothers ($\leq$55 years of age).

Note. $n = 306$. QOL = quality of life; SEM = structural equation model.

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

$ab = 0.13$, 95% CI $[0.05, 0.20]$. In testing the indirect effect of perceived social support in the prospective relation between baseline depressive symptoms and 12-month mental health quality of life, the total effect of baseline depressive symptoms on 12-month mental health quality of life was negative and significant, with a point estimate of $-0.18$, 95% CI $[-0.31, -0.05]$, standardized estimate of $-0.18$. 

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Consistent with Hypothesis 4, age moderated the mediated effect of social support in the relationship between baseline depressive symptoms and mental health quality of life at 12 months such that the mediated effect was larger and significant in older grandmothers, whereas significant mediation was not found in the younger grandmothers.

Discussion

Grandparents raising grandchildren endure intense emotional burdens as surrogate parents, particularly young grandmothers who scored high levels of depression. All grandmothers in the study had access to multidisciplinary support services through the study. However, it is unclear if one support service or if a combination of services had greater effect on emotional well-being, or if certain types of services were more appropriate for certain age groups. Our bivariate analyses indicated that depressive symptoms prior to receiving services (baseline) were negatively associated with perceptions of social support and mental health quality of life at 12-month follow-up in younger and older grandmother parenting groups, as suggested in the literature. Furthermore, we found a positive correlation between perceived helpfulness of support sources and mental health quality of life.
health quality of life at 12-month follow-up. These findings are consistent with McCubbin et al.’s (1998) coping model that proposes when families and individuals believe they do not have the necessary social network to meet their needs (e.g., social support), distress levels (e.g., mental health quality of life) may intensify, negatively affecting adaptation to life stressors and psychological well-being (e.g., depression). The correlation analysis provides no specific evidence suggesting the study variables relate differently due to age.

However, the predictive model analysis suggests age qualifies how depression affects social support and mental health quality in the sample of custodial grandmothers. Our findings show younger grandmothers experienced higher levels of depressive symptoms at baseline and lower levels of mental health quality of life when compared with older grandmothers, which affirms results from previous studies (Conway et al., 2011; Kelley et al., 2013). However, social support did not mediate between depression and mental health quality of life with younger grandmothers as expected. It is possible younger custodial grandmothers might experience different and more intense levels of depression due to caregiving responsibilities and other life responsibilities. Perhaps the need to manage diverse responsibilities across multiple family and social roles is not addressed adequately with current support sources.

Another factor to consider with our findings is the actual measure of social support itself (FSS) did not specify the type or quality of assistance provided by any specific source (e.g., spouse, family member, social group). The FSS essentially measures the structure of one’s perceived social network. Its function is implied based on the respondent’s ratings. However, it is unclear what kind of support young grandmothers are actually receiving from their social network. If young African American grandmothers are career-focused, and working outside the home, the concomitant strains from work obligations, raising other children, an inability to relate with members of their social networks, and performing other personal responsibilities in the home setting may contribute to weaker appraisals of support, in comparison with their older counterparts. Past studies on custodial grandparents have focused almost exclusively on the singular grandparent caregiving role and gave seemingly little regard to other possible life course roles and responsibilities assumed by custodial grandparents. Viewing young African American custodial grandmothers from a single role dimension limits how needs and support services are defined. A “one-size-fits-all” paradigm for creating social support services for custodial grandparents is probably inappropriate because it does not consider transitioning roles and responsibilities that occur over the life course.

Among older grandmothers, our findings suggest they also experience symptoms of depression, but the source(s) leading to distress may stem from a different context in comparison with younger grandmothers. Being present in a different position in the life course, older grandmothers may not experience the same family strains or responsibilities as younger grandmothers, or at least they
may not impact them the same way. They may not be in the position of raising their own children while raising grandchildren simultaneously; however, some of them could be caring for an elderly parent (sandwich generation). Older grandmothers are less likely to be employed outside the home as suggested by the data, removing a strain felt by younger grandmothers. It is likely the general descriptions of psychological effects experienced by custodial grandparents as presented in the literature seem more applicable to older grandparents in late adulthood. Social isolation, inadequate social support, and effects from aging are examples of known factors that contribute to psychological distress among custodial grandparents but may be particularly bothersome for older grandparents (Bundy-Fazioli, Fruhauf, & Miller, 2013; Carr, Hayslip, & Gray, 2012). However, older grandmothers in the study appeared to experience a more positive effect based on measured social support and emotional well-being outcomes, which may align well with their perceived needs. Helping grandmothers acquire financial support from public welfare, legal assistance, respite care, and other services are basic forms of support services offered to grandmothers through the program. In addition, attending monthly support group meetings, as well as receiving individualized case management services from social work and nursing staff during home visits provide older grandmothers with additional access to community-based resources. The service content and formal delivery of services may align best with the needs of older grandparents. Alternatively, these support services may not have the same relevance for younger grandmothers, who may have participated less in support groups and other services offered largely during working hours. The younger grandmothers experienced improved perceptions of social support and mental health quality of life but not to the point where their results suggest predictive power.

Our findings have relevance with other research exploring the emotional experiences of aging populations. Specifically, the work of Carstensen et al. (2011) features the long-term developmental course of emotional well-being in adults from early adulthood to old age. Using socioemotional selectivity theory (Carstensen, 2006), the researchers found older persons facing a shorter life span may be more motivated to focus on the most meaningful, positive, and satisfactory events of life. Their work emphasizes the following points: First, emotional well-being improves with age. Second, with increasing age emotional well-being becomes more stable. Third, emotional experiences become more “mixed” with decreases in the correlation between negative and positive experiences. Finally, older adults experiencing a greater number of positive emotional experiences have longer survival rates. Placing our results in the context of Carstensen’s work, older custodial grandmothers may be more motivated to emphasize positive emotions over the negative when adapting to challenging life events, when compared with younger grandparents. Older grandmothers may also have less dramatic negative responses to life challenges as they occur or such challenges are perceived differently when compared with younger grandmothers. The social and emotional needs of
caregivers at different life stages may produce distinct motivational factors that influence how life events are perceived and acted upon. Additional work in this area is required to gain a full understanding of the complete emotional effects on grandmothers raising grandchildren across the age spectrum.

Study Limitations

There are several limitations to the study that should be acknowledged. The sample participants included only African American grandmothers primarily from low-income areas, residing in a limited locality. Our findings are limited to this sample group as described.

Approximately 13% of the participants ($n = 91$) had missing information on marital status, so it was not included as a covariate in the analyses. Nor was there available information on other adults in the household who could potentially provide support to the grandmothers. Not having complete information on adult support in the household potentially leaves a gap in understanding the effectiveness of the model.

The original study design did not include a control or comparison group. Limited resources made the feasibility of recruiting and retaining control groups over an extended time period difficult while also providing comprehensive services to enrolled participants. Therefore, the results from the current study must be viewed within the context of this limitation.

Future Research

The findings in this study are preliminary from which to launch future work about the model’s utility. Further research is required to explicate more fully the association among the studied variables and to test further the value of the model. In particular, future studies should evaluate various types of support services (information, emotional, or tangible support) to ascertain if a specific support or service delivery methods affects older grandparents’ perceptions of support resulting in improved mental health (Cohen, 2004). The findings may reveal specific types of support services align with varying perceived needs among custodial grandparents by age-group or other characteristics. This ultimately may suggest the need to conceptualize different mediation models for young versus older grandparents based on type of support.

The present study involved African American grandmothers exclusively, drawn from a large, urban setting. Future work should include a more heterogeneous sample of custodial grandparents. Residents in rural locations may have different needs and sources of stress, suggesting they may hold different perspectives about social support that affect their emotional well-being. Similarly, there is limited understanding about grandfather-headed families and the determinants that influence their mental health outcomes. Little is known about
grandfathers because they are less prevalent as caregivers in comparison with grandmothers, they are recruited, and they participate less in formal service programs, making them less accessible for participation in research studies. However, their needs are no less vital to the welfare of the grandchildren being raised under their care. Promoting future efforts that broaden research knowledge and practice skills to effectively work with a heterogeneous population of grandparent caregivers should become a leading goal.

Understanding how depression affects interpersonal behaviors in grandparents of varying ages continues to be a notable area of study. Testing relevant theories that explain variations in behaviors and mental health functioning is central to this line of inquiry. An example is Coyne’s interpersonal theory of depression, which postulates that persons experiencing depressive behaviors may produce negative responses and solicit fewer helpful behaviors from others, creating a feedback loop of negative effect, unless appropriate interventions are instituted (Joiner & Coyne, 1999). One may use this theoretical perspective to explore how older versus younger grandmothers’ depressive symptomology measures against manifestations of interpersonal relations with family members, friends, coworkers, and so forth, and if social support is an appropriate mediator. Our results do not provide clear evidence about the types of support services young grandmothers need to produce positive mental health functioning to disrupt Coyne’s feedback loop. However, our research findings provide the background to pose additional questions that foster examining alternative perspectives about the relevance of various types of support services that potentially create a mediating effect.

Finally, the grandmothers in the study were offered support services for 12 full months. Individualized case management services were mandated, but other supports (group meetings) were not mandated. It is unclear how grandmothers varying service dosages impacted the results. Service dosage refers to the amount and frequency of services received by a participant (Slaughter et al., 2013). Older grandparents may have had higher dosages of support by attending support group meetings and interacting with peers, while younger grandmothers were unable to attend group meetings because of job commitments or other responsibilities. Future work should explore the issue of program dosage more thoroughly to determine if or how the amount of services influence mental health outcomes.

Due to the noted limitations in the study sample and design, implications for practice and policy are constrained until additional research is conducted that confirms the present findings. Our preliminary results show the promise for future efforts to clarify further the relationship between social support and mental health outcomes among the population of grandparents raising grandchildren. If our findings are affirmed, new designs of support programs for grandparent caregivers could emerge, further advancing how these families are best served to enhance their quality of life.
Conclusion

Grandparents raising grandchildren continues to be a social phenomenon that has a significant effect on psychological well-being. The current study explores the effects of perceived social support on mental health quality of life for younger and older custodial grandmothers experiencing psychological distress. The prospective mediational model revealed social support was a mediator in the association between depressive symptoms and mental health quality of life for older African American grandmothers; this same relationship did not hold for their younger counterparts. Continued inquiries in this area will foster new directions for practice with custodial grandparents. Ultimately, grandparent-headed families will experience better mental health outcomes following the inception of well-designed, age appropriate support interventions.

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**Author Biographies**

**Deborah M. Whitley**, PhD, is an Associate Professor at the School of Social Work, Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA.

**Susan J. Kelley**, PhD, is a Professor at the Byrdine F. Lewis School of Nursing and Health Professions, Georgia State University, Atlanta, GA.

**Dorian A. Lamis**, PhD, is an Assistant Professor at the Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA.