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Impact of Grandchild Caregiving on African American Grandparents

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Abstract

The aim of this study was to describe the context and impact of caregiving for grandchildren with health concerns on grandparents. The study sample comprised 391 African American grandparents aged 55 or older. Logistic regression analysis indicated that grandparent caregivers of grandchildren with psychiatric or behavioral problems were more likely to experience a negative impact on their health (AOR = 7.86, p = .008) and leisure (AOR = 14.31, p = .024) than grandparent caregivers of grandchildren with no or other types of health problems. The findings underscore the need to support African American grandparent caregivers, particularly those raising grandchildren with mental health problems.

Keywords

grandparent caregiving; African American grandparents; grandchildren with disabilities; behavioral problems; grandparent leisure

Introduction

According to *The Occupational Therapy Practice Framework: Domain and Process*, 3rd edition the occupation of caregiving is an instrumental activity of daily living (AOTA, 2014). Occupational therapists, therefore, need to be aware of the process of familial caregiving to provide culturally sensitive family-centered occupational therapy interventions. Family-centered care requires involving the family in every stage of treatment planning and implementation through a collaborative process of service delivery (Edwards et al., 2003; Jaffe et al., 2010). As the demographics and structural arrangements of families in the

United States change, it is imperative that therapists gain a rich understanding of the familial context of their clients. For example, despite the considerable increase in the number of grandparents co-residing and/or caregiving for grandchildren, there is sparse occupational therapy research on grandparent caregivers (Bonder, 2006; Kreider & Ellis, 2011; Ludwig et al., 2007; Marken et al., 2010).

Grandparent Caregiving

Historically, caregiving provided by grandparents has served as a safety net for children in need of parenting across cultural groups (Fuller-Thomson & Minkler, 2000; Goodman et al., 2004; Kreider & Ellis, 2011; Luo et al., 2012; Park & Greenberg, 2007; Yancura, 2013). Such grandparent caregiving may be either *formal*, such as foster care placements, or *informal*, such as care within multi-generational or skipped generation households (Simmons, 2005). Researchers estimate that 7.8 million American children live in families in which grandparents play an integral role in raising their grandchildren (Generations United, 2014; Lofquist et al., 2012). According to the 2010 census, among the 3% of all households in the United States that contain both grandparents and grandchildren, 60% were maintained by grandparents (Ellis & Simmons, 2012). Furthermore, 54% of co-resident grandparents also had primary responsibility for providing the basic needs of their co-resident grandchildren (Scommegna, 2012). In 2013, about 2 million U.S. residents aged 65 or over lived in households in which a grandchild was present, and over 500,000 also assumed primary responsibility for their grandchildren (U.S. Department of Health and Human Services, 2014).

Grandparent caregiving is common in African American families, particularly among urban low-income, single-parent families (Chen et al, 2014; Kelch-Oliver, 2011; Minkler & Fuller-Thomson, 2005). According to the Annie E. Casey Foundation (2015), African Americans also have the highest rate of child poverty—39% versus the national rate of 22%. Although children living in poverty have a higher risk of acquiring developmental disabilities, African American children are proportionately underrepresented in the special educational system, which suggests that many are not receiving supportive interventions in a timely fashion (Houtrow et al., 2014; Klinger et al., 2007; Morgan et al., 2015). Consequently, African American grandparents are likely to be caring for children at risk of poor developmental outcomes (Kelch-Oliver, 2011; Whitley & Kelley, 2008). Caregiving demands can further increase because African Americans are more likely than Caucasians to provide co-resident care to more than one family member with a chronic health condition, because of their cultural values, extended family networks, and greater reliance on informal rather than formal systems of support (Bullock et al., 2003; Burton & DeVries, 1992; Dilworth-Anderson et al., 2002; Goodman & Silverstein, 2002; Harris & Skyles, 2008; Simpson & Lawrence-Webb, 2009).

Caregiving for children involves multiple tasks that demand simultaneous attention while orchestrating family chores and activities to preserve the lives of the children and foster their growth and development (Brown, 2004). Grandparents' taking on such duties while dealing with their own age-related health issues can be extremely challenging, especially if their grandchildren have special health care needs (Abramson, 2015; Grant, 2000; Sands &

Goldberg-Glen, 2000). Aging caregivers of children with disabilities have been shown to undergo high psychological stress and to report a higher incidence of functional limitations and lower rates of health and life satisfaction than their non-caregiving counterparts or caregivers of typically developing children (Emick & Hayslip, 1999; Minkler & Fuller, 1999; Pruchno & McKenney, 2000). Further, aging minority grandparents who care for grandchildren with disabilities report a higher incidence of mental health issues, such as depression, than their Caucasian counterparts (Burnette, 1999 & 2000; Ruiz et al., 2003). Despite ample research on the physical, psychosocial, and economic burdens of caregiving for grandchildren, however, very few studies have examined the impact of the health of the grandchildren on grandparent caregivers based on large representative samples of minorities (Minkler & Fuller-Thomson, 2005; Musil et al., 2009; Ruiz et al., 2003).

Much of our limited knowledge about African American grandparent caregivers is based on qualitative inquiries using small samples, often in crisis-oriented situations (Burton, 1992 & 1996; Linsk et al., 2009; Kelch-Oliver, 2011; Waldrop, 2003; Winston, 2006). Most quantitative inquiries on this population are based on census data, national surveys, or social service agency data, and therefore lacks contextual information such as why do grandparents raise grandchildren, duration of caregiving, and the impact of grandchild characteristics on caregiving (Barer, 2001; Ehrle & Geen, 2002; Harris & Skyles, 2008; Minkler & Fuller-Thomson, 2005; Minkler & Roe, 1993; Szinovacz, 1998). To help address those gaps in the literature, this study employs a large normative community-based sample of African American grandparents to describe the contextual reasons behind the grandparent caregiving as well as to evaluate its impact on the grandparent. Specifically, this study addressed the following research questions:

- 1. Why do African American grandparents and grandchildren co-reside?
- **2.** What is the positive impact of grandchild caregiving on the grandparent?
- **3.** What is the negative impact of grandchild caregiving on the grandparent's health, finances and leisure?
- **4.** How does the health status of the grandchild, along with other sociodemographic factors, influence the grandparent's perception of the impact of their caregiving?

Method

To answer these research questions, the study conducted a secondary analysis of cross-sectional data gathered from aging urban African Americans from the Detroit metropolitan area. The data were derived from the Lifespan Investigation of Family, Health, and Environment (LIFHE) project conducted in 2011 at Wayne State University.

Participants

Participants for the LIFHE study were recruited from the participant resource pool of Healthier Black Elders Center (HBEC), which is a collaborative institute of two local university-based research institutions aimed at encouraging older African American adults to participate in research projects via community-based initiatives (Chadiha et al., 2011). At

the time of the study, the participant resource pool included 1,533 volunteers. Excluded from the study were eligible participants aged 55 years or older who had difficulties with speaking English, hearing, auditory comprehension, or any other cognitive limitations that prevented telephone survey administration. The LIFHE study included 501 aging seniors, of whom 391 reported having a grandchild or great-grandchild, and thus the term "grandchild" as used in this study includes both grandchildren and great-grandchildren.

Procedures

The institutional review boards of Wayne State University, University of Michigan, and the HBEC approved the study procedures, which involved a telephone survey on the health, daily functioning, family life, and civic engagement of aging urban African Americans. The LIFHE study Project Director trained the interviewers in survey administration through a standardized process that included a series of group and individual meetings involving didactic instruction, role playing, and observations of interviews until the interviewers demonstrated competency to independently conduct the 45-minute structured telephone interviews. All participants who completed an interview were compensated for their time with a \$15 retail store gift card.

Measures of Interest

Dependent variables—The positive impact of caregiving was measured using a single item asking grandparents how much they enjoyed caring for their grandchild using a 4-point ordinal scale (1 = not at all, 2 = a little, 3 = somewhat, 4 = a lot). The negative impact of caregiving was measured by three items asking grandparents to what degree caring for their grandchild had negatively impacted their health, finances, and leisure, each measured by the same 4-point ordinal scale. Next, because of low variability in responses, these variables were dichotomized for multivariate analysis across the categories by combining the second, third, and fourth response categories into one group reflecting some degree of negative impact (1 = any impact) versus those who did not report any negative impact (0 = no impact).

Independent variables—The primary variable examined in this study was the health status of the grandchild, which was measured by combining two separate dichotomous (yes/no) items, one on the presence of a disability or chronic health concern and another on the presence of psychiatric or behavioral problems. This variable was coded from 0 to 3: 0 = none, meaning that the grandchild did not have such a problem because the grandparent responded negatively to both questions; 1 = disability or health problems only, if the grandparent answered positively to only the question regarding a disability or health problem in the grandchild; 2 = psychiatric or behavioral problems only, if the grandparent answered positively to only the question regarding psychiatric or behavioral problems in the grandchild; and 3 = disability or health problems and psychiatric or behavioral problems, if the grandparent answered positively to both questions.

The socio-demographic variables that were included in the logistic regression model were the ages of grandparent and youngest grandchild, marital status of grandparent (single/married), education of grandparent (high school or less/some college), duration of caregiving

for grandchild (total number of years of having provided grandchild care), whether the grandparent lived with a grandchild at the time of the study (co-residence, yes/no), and whether the grandparent was providing daytime or afterschool care for a grandchild at the time of the study (grandchild care, yes/no).

Reasons for grandparent-grandchild co-residence were descriptively evaluated using a single item that gathered information from all participants on the main reason they were living or had ever lived with a grandchild. Participants could choose up to three responses from a list of 13 reasons, such as domestic violence and substance abuse, with an option to provide other comments as well.

Data Analysis

IBM SPSS Statistics for Windows, Version 22 (IBM, Armonk, NY) was used for data analysis. Descriptive analysis was undertaken to summarize all variables of interest. Multiple frequency analysis was undertaken to identify the top three reasons for coresidence with the grandchild. Logistic regression analysis was conducted to assess the impact of the health status of the grandchild on the grandparent's perception of caregiving's impact while controlling for other socio-demographic variables. Data screening and diagnostic tests were conducted before undertaking logistic regression analysis to screen for multicollinearity among the independent variables and to ensure that all statistical assumptions were met. Model fit was assessed based on three indices: (a) the Omnibus tests of model coefficients to assess if the models could reliably distinguish between the response categories of the dependent variable as indicated by a statistically significant λ^2 value (p < 0.05); (b) the Hosmer and Lemeshow test to assess how well the data fit the hypothesized models as indicated by a non-significant λ^2 , because p > 0.05 implies failure to reject the null hypothesis that the model is good enough fit for the data; and (c) the Nagelkerke R² value to measure the variance explained in the dependent variable by each model (Hosmer et al., 2013; Mertler & Vannatta, 2013). An alpha level of 0.05 was set to establish significance.

Results

Sample Characteristics

The majority (86.2%) of the grandparents in this study were female. Most (82.6%) lived in the city of Detroit and the remaining in the larger Detroit metropolitan area. Most participants were single (widowed, 34.7%; divorced, 27.7%; separated, 3.1%; never married, 6.7%), had some college education (67.9%), and had retired from paid work (83.8%). Study participants ranged in age from 55-94 years, with a mean age of 71.1 years (SD=8.4).

Description of Grandchildren and Grandchild Care

The participants reported having 1–30 grandchildren, with a median of 4 (Mode = 2, Mean = 5.99, SD = 4.89). The demographic characteristics of the grandchildren are summarized in Table 1. At the time of the study, 139 grandparents reported that they were providing daily grandchild care, either during the day or after school. Of these, 77 grandparents were coresiding with a grandchild at the time of the study, while 164 grandparents reported past co-

residence with a grandchild (Table 1). The average duration of grandchild care provided by the study participants was 12.61 years (SD = 8.82).

Of the 372 grandparents who responded to the questions regarding the health status of the grandchildren, approximately 23% reported that their grandchildren had health concerns. The problems reported by the 13% who reported a disability or health condition were asthma (n = 18); medical conditions such as sickle cell anemia, diabetes, lupus (n = 12); unspecified neurological problems (n = 10); cerebral palsy (n = 5); autism (n = 5); seizures (n = 2); visual impairments (n = 2); and hearing loss (n = 1). Among the 7% of respondents who reported that their grandchild had a psychiatric or behavioral problem, the most commonly reported condition was emotional problems (n = 11), followed by attention deficit hyperactivity disorder (n = 8), unspecified intellectual disability (n = 8), bipolar disorder (n = 4), and schizophrenia (n = 4).

Reasons for Co-residence

Multiple frequency analysis was conducted on the 271 responses obtained from 196 grandparents who were either co-residing with their grandchild at the time of the study or had co-resided in the past, to identify the common reasons for co-residence. Because the participants were allowed to choose up to three reasons for their current or past co-residence, the number of responses exceeded the number of participants. The most common reasons reported for co-residence with a grandchild were the grandchild's parents' financial burdens (21%), young age (14%), work or education (13.3%), illness or death (13%), divorce (7.4%), substance abuse (7%), domestic violence or child abuse (5.2%), or incarceration (0.4%). Others were practical needs of the grandchild, such as proximity to school or work (11.1%) or health problems (3.3%), grandparent's health needs (1.5%), or that the grandchildren's parent had never moved out of the grandparent's home (1.5%). The health status of the grandchild was not significantly associated with the reason for co-residence.

Impact of Caregiving for Grandchildren

Frequency analysis revealed that most (87.8%) of the grandparent caregivers reported that caregiving for their grandchild was enjoyable. Only 2% reported that they did not enjoy providing care for their grandchild at all, which provided no opportunity for further multivariate analysis to identify the factors that influenced a positive perception associated with grandchild caregiving. When evaluated specifically for negative impacts, close to three-fourths of the grandparent caregivers (72.7%) reported that grandchild caregiving did not negatively impact their health, just over half (53.2%) that it did not negatively impact their finances, and approximately half (49.6%) that it did not negatively impact their participation in leisure (Table 2).

Multivariate Analysis—Three separate logistic regression models were specified to assess how the health status of the grandchild along with the seven other socio-demographic variables influenced the perceived negative impacts on the grandparent's health, finances, and leisure. The Omnibus tests of model coefficients indicated that the hypothesized models were statistically reliable in distinguishing between grandparents who reported some or no negative impact on their health ($\lambda^2 = 26.72$, df = 10, p < 0.01), finances ($\lambda^2 = 32.44$, df = 10,

p<0.001), and leisure (λ^2 = 34.78, df=10, p<0.001). The Hosmer and Lemeshow test results (health: λ^2 = 10.28, df= 8, p=.25, finances: λ^2 = 8.31, df= 8, p=.40, and leisure: λ^2 = 2.18, df= 8, p=.98) indicate that the hypothesized models fit the sample data well. Finally, the variance explained by each of the models (Nagelkerke R² values) was 27.8 % for grandparent health, 30.3% for grandparent finances, and 32.2% for grandparent leisure.

As the findings summarized in Table 3 illustrate, the grandchild's health status was significantly associated with a perceived negative impact on the grandparent's health and leisure. In the case of the negative impact on grandparent finances, however, the significant factors were co-residence with grandchild (Adjusted odds ratio [AOR] = 4.75, p < .001) and increasing age of the grandparent (AOR = 0.94, p = .046).

Specifically, the grandparents of grandchildren with psychiatric or behavioral problems were about eight times more likely to report that caregiving had a negative effect on their health than those with grandchildren with no health problems (AOR = 7.86, p = .008). Increasing age of the youngest grandchild (AOR = 1.09, p = .025) was also significantly associated with a negative impact on the grandparent's health.

Grandparents providing caregiving for grandchildren with psychiatric or behavioral problems were also about 14 times more likely to report a negative impact on their leisure (AOR = 14.31, p = .024) than those whose grandchildren had no health problems. Coresidence with grandchild (AOR = 2.90, p = .015) and provision of daily grandchild care (AOR = 3.32, p = .017) were also found to be significantly associated with a negative impact on grandparent's leisure.

Discussion

The purpose of this study was to portray the caregiving context of the African American grandparents in this study by describing the common reasons for grandparent-grandchild coresidence and grandparent reported heath status of their grandchildren, before delving into the impact of grandchild caregiving on the grandparents. Very few of the aging African American grandparents in this study co-resided with grandchildren to provide care for the grandchild or to receive care for themselves. By far, the most common reason for coresidence was financial challenges faced by the parents of the grandchild, which is similar to patterns observed across all U.S. racial groups (Fergusson et al., 2008; Leach et al., 2008). Other reasons were the inability or unpreparedness of the grandchild's parents to independently manage a home, such as teenage parents or the work or educational needs of parents. The finding that a very small proportion of grandparents co-resided with grandchildren because of familial crises such as incarceration, domestic violence, and substance abuse adds to the small body of literature that challenges the racial stereotyping of African American families. For example, a community-based study of grandparent caregivers by Goodman and Silverstein (2006) found that White grandmothers were more likely to provide grandchild care in response to serious parental substance abuse problems than were African American grandmothers. Other studies have highlighted the need to focus on familial strengths and collaboration between generations facing economic hardship

together and to avoid pathological framing when describing intergenerational African American families (Barer, 2001; Becker et al., 2003; Waites, 2009).

Grandchild Health Concerns

Close to a quarter of the grandparents in this study reported that at least one of their grandchildren had a health condition, disability, behavioral problem, or psychiatric diagnosis. This incidence appears consistent with estimates that 15% of U.S. children have a developmental disability, with a higher prevalence among minorities from socioeconomically disadvantaged backgrounds (Boyle et al., 2011; Houtrow et al., 2014). A closer analysis of the participants' descriptions of these problems, however, indicates that most were not able to describe or state their grandchild's diagnosis or type of disability. In the case of autism spectrum disorders (ASD), for example, only 5 (1.34%) of the 372 grandparents who responded to the open-ended question designed to elicit data on the grandchild's diagnosis reported that at least one of their grandchildren had an ASD, in contrast to research based on convenience samples from metro Detroit that have indicated a higher parent-reported incidence of ASD (Samuel et al., 2011 & 2012). National and statelevel data also indicate that ASD is the fastest growing developmental disability, resulting in long waits to obtain services (Boyle et al., 2011; Jones et al., 2016; Michigan ASD State Plan, 2012). Past research has demonstrated that a decreased awareness of ASD symptomatology can lead to underreporting and resistance to obtaining diagnostic labels for their grandchildren, which then contributes to the longer time from onset to diagnosis among African American children than among Caucasian children (Burkett et al., 2015; Jarquin et al., 2011; Morgan et al., 2015; Ratto et al., 2016). Timely recognition of a grandchild's health problems is the first step in obtaining supportive services such as occupational therapy to improve the functional outcomes of grandchildren who may be at risk for developmental disorders.

Positive Impact of Caregiving

The overwhelming majority of the participants attested to the positive and enjoyable side of grandchild caregiving. Therefore, no further multivariate analysis could be undertaken to identify the factors contributing to this positive perception. These results confirm past findings on positive perceptions of grandchild care, particularly among African Americans (Burton & DeVries, 1992; Pruchno, 1999; Thiele & Whelan, 2008; Statham, 2011). A new insight from this result is that grandchild caregiving can be perceived as positive and enjoyable despite problems with the grandchild's health, which diverges from the current literature's overwhelming focus on the burden of providing care for grandchildren with atypical development (Burnette, 2000; Dowdell, 2005; Kelley et al., 2013; Ruiz et al., 2003).

Negative Impact of Caregiving

Grandparent health impact—Only a quarter of the participants reported that grandchild caregiving had a negative impact on their health, which is consistent with past research indicating that African Americans typically report low levels of caregiving burden (Allen-Kelsey, 1998; Pinquart & Sörensen, 2005). Although researchers have found that the rewards of caregiving can outweigh its burdens, other research has shown that some caregiving

grandparents are at high risk for adverse health effects (Kelley et al., 2010 & 2013; Monahan et al., 2013; Sands & Goldberg-Glen, 2000). In this study, the factors associated with a negative health impact were the mental health and age of the grandchild. In particular, grandparents of grandchildren with behavioral problems or a psychiatric condition were about eight times (AOR = 7.86) more likely to report a negative impact than their peers whose grandchildren had no health concerns. This result supports earlier findings that the disability status of a child is a predictor of stress for parents and grandparents (Taylor et al., 2007). Grandparents of older grandchildren were also more likely to report a negative impact on their health. Unlike the case of typically developing children, who present less of a caregiving burden as they grow older, past research has shown that the caregiving needs of atypically developing children intensify and become more complex as they age (Statham, 2011). As both the grandchild and grandparent grow older there can be an additive adverse effect on the physical and psychological health of the grandparents, with the caveat that caregiving does not cause a decline in grandparents' health, as demonstrated by Hughes et al. (2008). It was beyond the scope of this study to examine the nature of grandparent health problems and how it varied by their caregiving status.

Financial impact—Almost half of the sample reported that caregiving for their grandchildren had a negative impact on their finances. Co-residency and higher ages of grandparents increased the likelihood of a negative financial impact, which is consistent with other findings regarding the costs of grandchild care (Baker & Mutchler, 2012; Goodman & Silverstein, 2006; Musil et al., 2011; Padilla-Frausto & Wallace, 2013). Although it appears that the health status of a grandchild did not have an adverse effect on the financial status of the grandparent, this could be explained by the small number of grandparents who reported on the type of health concern or disability of the grandchild. An increased awareness of the severity of a grandchild's health condition can lead to increased treatment expenditures and associated out-of-pocket costs, as demonstrated in research on parents of children with disabilities (Goudie et al. 2014; Ouyang et al., 2014; Sharpe & Baker, 2007; Stabile & Alin, 2012). The cost of a grandchild's care can be multifaceted, including legal fees for custody battles, providing for the adult parent of the grandchild, family health expenditures, and struggles to obtain child childcare subsidies, all of which can drain grandparents' resources and adversely affect their overall health and well-being (Burton & DeVries, 1992; Park, 2006; Waldrop & Weber, 2001).

Leisure impact—Taking on caregiving duties for their grandchildren was associated with a negative impact on these grandparents' leisure. The factors associated with a negative impact on grandparent leisure were mental health concerns of the grandchild, co-residency, and current provision of grandchild care. Specifically, grandparents of grandchildren with mental health concerns were about 14 times (AOR = 14.31) more likely to experience this negative impact than the participants whose grandchildren had no health concerns. Co-resident grandparents were about three times (AOR = 2.90) more likely than their non co-resident peers to experience a negative impact on their leisure. This finding concurs with past research showing that grandparents who live with their grandchildren report having less personal time, including limiting their participation in friendship, leisure, and recreational activities (Jendrek, 1993; Williams, 2011). Grandparents who were providing regular

grandchild care during the day or after-school were also three times (AOR = 3.32) more likely than their peers who were not providing grandchild care at the time of the study to experience a negative impact on their leisure. This finding aligns with previous research indicating that grandparents who have to provide grandchild care for longer hours find caregiving less enjoyable and are more likely to report a negative impact on their overall well being (Statham, 2011). Some of this negative impact can be explained by conflict between the grandparents' expectations of retired life and the reality of caregiving for grandchildren (Landry-Meyer & Newman, 2004). Although the association between the level of community participation of grandparents and the caregiving status of grandparents was not examined in this study, research and practitioner reports indicate that caregiving responsibilities can limit participation in age-appropriate occupations such as volunteering in the community that could promote their health and well being (Bulanda & Jendrek, 2014).

Limitations and Strengths

The limitations of this study include the use of a single-item outcome variable and selfreported data on the health status of grandchildren. The small subgroups of grandchildren with different types of health problems limited the scope of the conclusions that were made regarding how grandchildrens' health status influenced grandparents' perception of caregiving. The factors that limit the generalizability of these findings include the narrow geographical representation of the study participants and the exclusion of the perspectives of socially isolated grandparents because of the use of a sample of convenience that is likely to have included only somewhat socially connected grandparents. Despite these limitations, these findings contribute to the sparse literature on grandparent caregiving among African Americans. This study also adds to the few studies using a large normative sample of aging urban African Americans, who have historically been underrepresented in research and underserved by health and disability service systems. Another contribution of this study is its within-group analysis of African American grandparents rather than comparing them to other racial groups. Interracial comparative studies have contributed to the misperception that African American grandparent caregiving is driven primarily by parental dysfunctions such as substance abuse, violence, or incarceration, a stereotype that is challenged by this study's findings.

Future Directions

In terms of grandchildren health status, future community-based research studies should consider using brief standardized developmental screening tools that can be completed by grandparent report instead of relying solely on participant descriptions of grandchildrens' health issues. The systematic screening of grandchildren at risk for poor developmental outcomes can enable follow-up efforts that include timely referrals of children for supportive interventions, thereby ameliorating the racial disparities within the U.S. special education system (Morgan et al., 2015; Morgan & Farkas, 2016). The effect of grandparent health on grandchild caregiving and family quality of life also deserve further investigation.

Longitudinal studies on this topic could identify how grandparent-grandchild caregiving relationships evolve over time, which is also an under-studied topic. Most family support research and interventions have focused on younger families and therefore do not address the needs of aging caregivers, particularly those of urban minorities. A useful first step in

remedying this gap in the literature would be to systematically evaluate the quality of life of both the grandparent and grandchild within the family quality of life construct to foster the development of an evidence-based, multi-disciplinary model of family support.

Practical Implications

Despite the commitment of occupational therapists to family-centered care, there has been limited knowledge translation into clinical settings (Baker et al., 2012; Hanna & Rodger, 2002; King et al., 2004). One barrier to the delivery of family-centered care in rehabilitation settings is a limited understanding of the caregiver challenges and strengths. The findings of this study can help sensitize occupational therapists to the needs of the growing group of grandparent caregivers in the United States. First, the reported reasons for grandparent—grandchild co-residence reveal that African Americans, like members of other racial groups, most commonly co-reside because of financial challenges. Such awareness can promote cultural sensitivity among therapists and avoid the stereotypical misperception that most grandchildren being cared for by African American grandparents are victims of such dysfunctions as parental incarceration, domestic abuse, and substance abuse.

Next, although the grandparents in this study found that caregiving was enjoyable irrespective of the health of the grandchild, the findings also suggests that grandparents may overlook their own needs unless specifically probed on the adverse impacts. In this study, it was found that caregiving for grandchildren with behavioral problems led to a negative impact on grandparents' personal health and leisure. A negative financial impact was similarly found to be associated with grandparent–grandchild co-residence and increasing grandparent age. Together, these findings highlight the need for occupational therapists to promote the value of engaging in low-cost community-based leisure in order to improve the overall health and well being of their clients. Specifically, the results suggest that occupational therapists working with aging adults or atypically developing children should use their expertise to facilitate the joint engagement of grandparents and grandchildren in meaningful and affordable leisure activities to promote family well being.

Finally, the findings of this study also underscore the need for occupational therapists to support aging grandparents who are living with or caring for atypically developing grandchildren by working with multidisciplinary teams focused on improving the overall health and well being of the client's family. Educating grandparent caregivers about the benefits of timely diagnostic evaluations and the scope of interventions, including occupational therapy, for children with behavioral problems would be beneficial to both the grandchildren and the aging grandparent. Through practice, scholarship, and advocacy, occupational therapists are well positioned to improve the quality of life of aging urban grandparents likely to be caring for grandchildren at risk for poor developmental outcomes.

Conclusion

The Welsh say, "Perfect love sometimes does not come until the first grandchild." As the findings of this study illustrate, however, this love can turn bittersweet for some grandparents, particularly those caring for grandchildren with mental health problems. Other factors associated with the perceived negative impact of grandchild caregiving were

grandchild co-residence, daily provision of grandchild care, and increasing age of grandparent and grandchild. Nevertheless, the study also found that the demands of caregiving for grandchildren, including those with health problems, do not negate the joy of grandchild caregiving. These findings can be useful to therapists, researchers, and educators committed to building the capacity of African American families with atypically developing grandchildren and aging grandparent caregivers, thus improving the quality of family-centered occupational therapy services.

References

- Abramson TA. Older adults: The "panini sandwich" generation. Clinical Gerontologist. 2015; 38(4): 251–267.
- Allen-Kelsey GJ. Caregiver burden among African-American and Anglo-American family caregivers. Topics in Geriatric Rehabilitation. 1998; 14(1):63–73.
- American Occupational Therapy Association (AOTA). Occupational therapy practice framework: Domain and process (3rd ed.). American Journal of Occupational Therapy. 2014; 68:S1–S48.
- Arcia E, Keyes L, Gallagher JJ, Herrick H. National portrait of sociodemographic factors associated with underutilization of services: Relevance to early intervention. Journal of Early Intervention. 1993; 17(3):283–297.
- Annie, E. KIDS COUNT data. Baltimore, MD: Author; 2015. Casey Foundation.
- Baker T, Haines S, Yost J, DiClaudio S, Braun C, Holt S. Role of family-centered therapy when used with physical or occupational therapy in children with congenital or acquired disorders. Physical Therapy Reviews. 2012; 17:29–36.
- Baker LA, Mutchler JE. Poverty and material hardship in grandparent-headed households. Journal of Marriage and Family. 2010; 72(4):947–962. [PubMed: 24932050]
- Barer BM. The "grands and greats" of very old black grandmothers. Journal of Aging Studies. 2001; 15:1–11.
- Becker G, Beyene Y, Newsom E, Mayen N. Creating continuity through mutual assistance: Intergenerational reciprocity in four ethnic groups. Journal of Gerontology: Social Sciences. 2003; 58B(3):S151–S159.
- Bonder BR. Family occupations in later life. Journal of Occupational Science. 2006; 13(2-3):107-116.
- Boyle CA, Boulet S, Schieve LA, Cohen RA, Blumberg SJ, Yeargin-Allsopp M, Visser S, Kogan MD. Trends in the prevalence of developmental disabilities in US children 1997–2008. Pediatrics. 2011; 126(6):1034–1042.
- Burton LM. Black grandparents rearing children of drug-addicted parents: Stressors, outcomes, and social service needs. The Gerontologist. 1992; 32(6):744–751. [PubMed: 1478492]
- Burton LM. Age norms, the timing of family role transitions, and intergenerational caregiving among aging African American women. The Gerontologist. 1996; 36(2):199–208. [PubMed: 8920089]
- Burton LM, Devries C. Challenges and rewards: African American grandparents as surrogate parents. Generations: Journal of the American Society on Aging. 1992; 16(3):51–54.
- Brown, G. Family-centered care, mothers' occupations of caregiving and home therapy programs. In: Esdaile, S., Olson, J., editors. Mothering Occupations: Challenge, Agency and Participation. Philadelphia: F. A. Davis; 2004. p. 346-371.
- Bulanda JR, Jendrek MP. Grandparenting roles and volunteer activity. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2014 gbu033.
- Bullock K, Crawford SL, Tennstedt SL. Employment and caregiving: Exploration of African American caregivers. Social Work. 2003; 48(2):150–162. [PubMed: 12718411]
- Burkett K, Morris E, Manning-Courtney P, Anthony J, Shambley-Ebron D. African American families on autism diagnosis and treatment: The influence of culture. Journal of Autism and Developmental Disorders. 2015; 45(10):3244–3254. [PubMed: 26055985]
- Burnette D. Custodial grandparents in Latino families: Patterns of service use and predictors of unmet needs. Social Work. 1999; 44(1):22–34. [PubMed: 9922727]

Burnette D. Latino grandparents rearing grandchildren with special needs: Effects on depressive symptomatology. Journal of Gerontological Social Work. 2000; 33(3):1–16.

- Burton LM, Devries C. Challenges and rewards: African American grandparents as surrogate parents. Generations: Journal of the American Society on Aging. 1992; 16(3):51–54.
- Chadiha LA, Washington OGM, Lichtenberg PA, Green CR, Daniels KL, Jackson JS. Building a registry of research volunteers among older urban African Americans: Recruitment processes and outcomes from a community-based partnership. The Gerontologist. 2011; 51(S1):S106–S115. [PubMed: 21565812]
- Chen F, Mair CA, Bao L, Yang YC. Race/ethnic differentials in the health consequences of caring for grandchildren for grandparents. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2014 gbu160.
- Cuddeback GS. Kinship family foster care: A methodological and substantive synthesis of research. Children and Youth Services Review. 2004; 26(7):623–639.
- Dilworth-Anderson P, Williams IC, Gibson B. Issues of race, ethnicity, and culture in caregiving research: A 20-year review (1980–2000). The Gerontologist. 2002; 42(2):237–272. [PubMed: 11914467]
- Dowdell EB. Grandmother caregiver reactions to caring for high-risk grandchildren; "I could write a book!". Journal of Gerontological Nursing. 2005; 31(6):31–37.
- Edwards MA, Millard P, Praskac LA, Wisniewski PA. Occupational therapy and early intervention: A family-centred approach. Occupational Therapy International. 2003; 10(4):239–252. [PubMed: 14647538]
- Ellis, RR., Simmons, T. Coresident grandparents and their grandchildren: 2012. Washington, DC: U.S. Census Bureau; 2014.
- Ehrle, J., Geen, R. New Federalism: National Survey of America's Families, No. B-47. Washington, D.C: The Urban Institute; 2002a. Children cared for by relatives: What services do they need?.
- Emick MA, Hayslip B Jr. Custodial grandparenting: Stresses, coping skills, and relationships with grandchildren. International Journal of Aging and Human Development. 1999; 48(1):35–61. [PubMed: 10363559]
- Fergusson E, Maughan B, Golding J. Which children receive grandparental care and what effect does it have? Journal of Child Psychology and Psychiatry. 2008; 49(2):161–169. [PubMed: 17979960]
- Fuller-Thomson E, Minkler M. African American grandparents raising grandchildren: A national profile of demographic and health characteristics. Health & Social Work. 2000; 25(2):109–118. [PubMed: 10845145]
- Goodman C, Silverstein M. Grandmothers raising grandchildren family structure and well-being in culturally diverse families. The Gerontologist. 2002; 42(5):676–689. [PubMed: 12351803]
- Goodman CC, Potts M, Pasztor EM, Scorzo D. Grandmothers as kinship caregivers: Private arrangements compared to public child welfare oversight. Children and Youth Services Review. 2004; 26(3):287–305.
- Goodman CC, Silverstein M. Grandmothers raising grandchildren: Ethnic and racial differences in well-being among custodial and coparenting families. Journal of Family Issues. 2006; 27(11): 1605–1626.
- Generations United. State of grandfamilies: 2014. 2014. Retrieved Jan 21, 2014 from http://www.grandfamilies.org/Portals/0/14-State-of-Grandfamilies-Report-Final.pdf
- Goudie A, Narcisse MR, Hall DE, Kuo DZ. Financial and psychological stressors associated with caring for children with disability. Families, Systems, & Health. 2014; 32(3):280.
- Grant R. The special needs of children in kinship care. Journal of Gerontological Social Work. 2000; 33:17–38.
- Hanna K, Rodger S. Towards family-centred practice in paediatric occupational therapy: A review of the literature on parent-therapist collaboration. Australian Occupational Therapy Journal. 2002; 49(1):14–24.
- Harris MS, Skyles A. Kinship care for African American children: Disproportionate and disadvantageous. Journal of Family Issues. 2008; 29(8):1013–1030.
- Hosmer, DW., Jr, Lemeshow, S., Sturdivant, RX. Applied Logistic Regression. Vol. 398. Hoboken, NJ: John Wiley & Sons; 2013.

Houtrow AJ, Larson K, Olson LM, Newacheck PW, Halfon N. Changing trends of childhood disability, 2001–2011. Pediatrics. 2014; 134(3):530–538. [PubMed: 25136051]

- Hughes ME, Waite LJ, LaPierre TA, Luo Y. All in the family: The impact of caring for grandchildren on grandparents' health. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2007; 62(2):S108–S119.
- Jaffe, L., Humphry, R., Case-Smith, J. Working with families. In: Case-Smith, J., O'Brien, J., editors. Occupational Therapy for Children. 6th. St. Louis: Mosby/Elsevier; 2010. p. 108-145.
- Jarquin VG, Wiggins LD, Schieve LA, Van Naarden-Braun K. Racial disparities in community identification of autism spectrum disorders over time: Metropolitan Atlanta, Georgia, 2000–2006. Journal of Developmental & Behavioral Pediatrics. 2011; 32(3):179–187. [PubMed: 21293294]
- Jendrek MP. Grandparents who parent their grandchildren: Effects on lifestyle. Journal of Marriage and the Family. 1993; 55(3):609–621.
- Kelch-Oliver K. African American grandchildren raised in grandparent-headed families: An exploratory study. The Family Journal. 2011; 19(4):396–406.
- Kelley SJ, Whitley DM, Campos PE. Psychological distress in African American grandmothers raising grandchildren: The contribution of child behavior problems, physical health, and family resources. Research in Nursing & Health. 2013; 36(4):373–385. [PubMed: 23606233]
- King S, Teplicky R, King G, Rosenbaum P. Family-centered service for children with cerebral palsy and their families: A review of the literature. Seminars in pediatric neurology. Mar; 2004 11(1): 78–86. [PubMed: 15132256]
- Klinger, JK., Blanchett, WJ., Harry, B. Race, culture and developmental disability. In: Odom, SL.Horner, RH.Snell, HE., Blacher, JB., editors. Handbook of Developmental Disabilities. New York: Guilford Press; 2007. p. 55-76.
- Kreider, RM., Ellis, R. Living arrangements of children: 2009 (Current Population Reports, P70-126). Washington, DC: U.S. Census Bureau; 2011.
- Landry-Meyer L, Newman BM. An exploration of the grandparent caregiver role. Journal of Family Issues. 2004; 25(8):1005–1025.
- Leach P, Barnes J, Malmberg L-E, Sylva K, Stein A, the FCCC team. The quality of different types of child care at 10 and 18 months: A comparison between types and factors related to quality. Early Child Development and Care. 2008; 178(2):177–209.
- Linsk N, Mason S, Fendrich M, Bass M, Prubhughatre P, Brown A. "No matter what I do they still want their family": Stressors for African American grandparents and other relatives. Journal of Family Social Work. 2009; 12(1):25–43.
- Livingston, G., Parker, K. Since the start of the great recession, more children raised by grandparents. Washington, DC: Pew Research Center; 2010.
- Lofquist, D., Lugaila, T., Connell, M., Feliz, S. Households and Families: 2010 (US Census Briefs). Washington, DC: U.S. Census Bureau; 2012 Apr.
- Ludwig FM, Hattjar B, Russell RL, Winston K. How caregiving for grandchildren affects grandmothers' meaningful occupations. Journal of Occupational Science. 2007; 14(1):40–51.
- Luo Y, LaPierre TA, Hughes ME, Waite LJ. Grandparents providing care to grandchildren: A population-based study of continuity and change. Journal of Family Issues. 2012; 33(9):1143–1167.
- Marken DM, Pierce D, Baltisberger JA. Grandmothers' use of routines to manage custodial care of young children. Physical & Occupational Therapy in Geriatrics. 2010; 28(4):360–375.
- Mertler, CA., Vannatta, RA. Advanced and Multivariate Statistical Methods. Los Angeles: Pyrczak Publishing; 2013.
- Michigan Autism Spectrum Disorder State Plan Development Committee and Advisory Committee.

 Michigan Autism Spectrum Disorders State Plan: Findings and Recommendations. 2012 Dec.

 Retrieved from https://www.michigan.gov/documents/autism/

 ASDStatePlan_2_19_13_Final_414143_7.pdf
- Minkler M, Fuller-Thomson E. Health of grandparents raising grandchildren: Results of a national study. American Journal of Public Health. 1999; 89(9):1384–1389. [PubMed: 10474557]

Minkler M, Fuller-Thomson E. African American grandparents raising grandchildren: A national study using the Census 2000 American Community Survey. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2005; 60(2):S82–S92.

- Minkler, M., Roe, K. Grandmothers as caregivers: Raising children of the crack cocaine epidemic. Newbury Park, CA: Sage; 1993.
- Monahan DJ, Smith CJ, Greene VL. Kinship caregivers: Health and burden. Journal of Family Social Work. 2013; 16(5):392–402.
- Morgan PL, Farkas G, Hillemeier MM, Mattison R, Maczuga S, Li H, Cook M. Minorities are disproportionately underrepresented in special education longitudinal evidence across five disability conditions. Educational Researcher. 2015; 44(5):278–292. [PubMed: 27445414]
- Morgan PL, Farkas G. Evidence and implications of racial and ethnic disparities in emotional and behavioral disorders identification and treatment. Behavioral Disorders. 2016; 41(2):122–131.
- Musil CM, Gordon NL, Warner CB, Zauszniewski JA, Standing T, Wykle M. Grandmothers and caregiving to grandchildren: Continuity, change, and outcomes over 24 months. The Gerontologist. 2011; 51(1):86–100. [PubMed: 20724656]
- Musil C, Warner C, Zauszniewski J, Wykle M, Standing T. Grandmother caregiving, family stress and strain, and depressive symptoms. Western Journal of Nursing Research. 2009; 31(3):389–408. [PubMed: 19261805]
- Ouyang L, Grosse SD, Riley C, Bolen J, Bishop E, Raspa M, Bailey DB. A comparison of family financial and employment impacts of fragile X syndrome, autism spectrum disorders, and intellectual disability. Research in Developmental Disabilities. 2014; 35(7):1518–1527. [PubMed: 24755230]
- Padilla-Frausto, DI., Wallace, SP. The high cost of caring: Grandparents raising grandchildren. Los Angeles: UCLA Center for Health Policy Research; 2013.
- Park HOH. The economic wellDbeing of households headed by a grandmother as caregiver. Social Service Review. 2006; 80(2):264–296.
- Park, HH., Greenberg, JS. Parenting grandchildren. In: Blackburn, J., Dulmus, C., editors. Handbook of gerontology: Evidence-based approaches to theory, practice, and policy. Hoboken, NJ: John Wiley; 2007. p. 397-425.
- Pinquart M, Sörensen S. Ethnic differences in stressors, resources, and psychological outcomes of family caregiving: A meta-analysis. The Gerontologist. 2005; 45(1):90–106. [PubMed: 15695420]
- Pruchno R. Raising grandchildren: The experiences of black and white grandmothers. The Gerontologist. 1999; 39(2):209–221. [PubMed: 10224717]
- Pruchno R, McKenney D. Living with grandchildren: The effects of custodial and coresident households on the mental health of grandmothers. Journal of Mental Health and Aging. 2000; 6(4): 269–289.
- Ratto AB, Anthony BJ, Kenworthy L, Armour AC, Dudley K, Anthony LG. Are non-intellectually disabled black youth with ASD less impaired on parent report than their white peers? Journal of Autism and Developmental Disorders. 2016; 46(3):773–781. [PubMed: 26439481]
- Ruiz DS, Zhu CW, Crowther MR. Not on their own again: Psychological, social, and health characteristics of custodial African American grandmothers. Journal of Women & Aging. 2003; 15(2–3):167–184. [PubMed: 14604007]
- Samuel PS, Hobden KL, LeRoy BW. Families of children with autism and developmental disabilities: A description of their community interaction. Research in Social Science and Disability. 2011; 6:49–83. (Research in Social Science and Disability; Vol. 6).
- Samuel PS, Hobden KL, LeRoy BW, Lacey K. Analyzing family service needs to typically underserved families in the USA. Journal of Intellectual Disability Research. 2012; 56(1):111–128. [PubMed: 22142360]
- Sands RG, Goldberg-Glen RS. Factors associated with stress among grandparents raising their grandchildren. Family Relations. 2000; 49(1):97–105.
- Scommegna, P. More US children raised by grandparents. Washington, DC: Population Reference Bureau; Mar. 2012

Shakya HB, Usita PM, Eisenberg C, Weston C, Lilies S. Family well-being concerns of grandparents in skipped generation families. Journal of Gerontological Social Work. 2012; 55(1):39–54. [PubMed: 22220992]

- Sharpe DL, Baker DL. Financial issues associated with having a child with autism. Journal of Family and Economic Issues. 2007; 28(2):247–264.
- Simmons, A. Doctoral dissertation, University of Georgia. 2005. Grandparent foster caregiver characteristics, differences between foster caregivers, and predictors of satisfaction with social support.
- Simpson GM, Lawrence-Webb C. Responsibility without community resources: Informal kinship care among low-income, African American grandmother caregivers. Journal of Black Studies. 2009; 39(6):825–847.
- Szinovacz ME. Grandparents today: A demographic profile. The Gerontologist. 1998; 38(1):37–52. [PubMed: 9499652]
- Statham, J. Grandparents providing childcare: Briefing Paper. London UK: Childhood Wellbeing Research Centre; 2011.
- Taylor JY, Washington OG, Artinian NT, Lichtenberg P. Parental stress among African American parents and grandparents. Issues in Mental Health Nursing. 2007; 28(4):373–387. [PubMed: 17454289]
- Thiele DM, Whelan TA. The relationship between grandparent satisfaction, meaning, and generativity. International Journal of Aging and Human Development. 2008; 66(1):21–48. [PubMed: 18429482]
- U.S. Department of Health and Human Services. A profile of older Americans: 2014. Washington, DC: Administration on Aging, Administration for Community Living, US Department of Health and Human Services; 2014.
- Waldrop DP, Weber JA. From grandparent to caregiver: The stress and satisfaction of raising grandchildren. Families in Society. 2001; 82(5):461–472.
- Waldrop DP. Caregiving issues for grandmothers raising their grandchildren. Journal of Human Behavior in the Social Environment. 2003; 7(3/4):201–223.
- Waites C. Building on strengths: Intergenerational practice with African American families. Social Work. 2009; 54(3):278–287. [PubMed: 19530575]
- Williams MN. The changing roles of grandparents raising grandchildren. Journal of Human Behavior in the Social Environment. 2011; 21:948–962.
- Winston CA. African American grandmothers parenting AIDS orphans. Qualitative Social Work. 2006; 5(1):33–43.
- Yancura LA. Justifications for caregiving in White, Asian American, and Native Hawaiian grandparents raising grandchildren. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2013; 68(1):139–144.

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Table 1

Characteristics of Grandchild and Grandchild Care

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Demographics	n	Min-Max	M(SD)
Age of oldest grandchild (years)	382	1–50	24.02 (10.08)
Missing 9			
Age of youngest grandchild (years)	380	1-40	12.03 (9.09)
Missing 11			
Duration of caregiving (years)	305	0-42	12.61 (8.82)
Missing 36			
	n	% a	
Co-residence ^b			
Yes	77	19.69	
No	314	80.31	
Grandchild care $^{\mathcal{C}}$			
Yes	139	35.55	
No	252	64.45	
Health status of grandchild	372		
Disability/ health problem	47	12.63	
Psychiatric/ behavioral problem	25	6.72	

Both types None

Missing 19

15

285

4.03

76.61

 $^{{}^{}a}$ Note. = Valid percentages are reported that accounts for missing data;

 $[\]begin{tabular}{ll} b Participants who reported that they were co-residing with a grandchild at the time of the study; \end{tabular}$

^CParticipants who reported that they were providing day or afterschool care for grandchild(ren) at the time of the study.

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 $\label{eq:Table 2} \textbf{Positive \& Negative Impact of Grandchild Caregiving (n=139)}$

Items	Not at all % (n)	A little bit % (n)	Somewhat % (n)	A lot % (n)
Enjoy grandchild care	2.2	5.8	4.3	87.8
	(3)	(8)	(6)	(122)
Negative impact on gra	ndparent's			
Health	72.7	7.9	12.9	6.5
	(101)	(11)	(18)	(9)
Finances	53.2	14.4	13.7	18.7
	(74)	(20)	(19)	(26)
Leisure	49.6	23.0	11.5	15.8
	(69)	(32)	(16)	(22)

The sample size for this analysis was n = 139 that comprises all grandparents who were providing grandchild care (daytime or afterschool) at the time of the study.

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Table 3

Factors Associated with Negative Impact on Grandparent Health, Finances $^{\mathcal{L}}$ Leisure

Variables		Health	_		Finances	es		Leisure	•
	q	SE	AOR	q	SE	AOR	q	SE	AOR
Grandparent age	-0.07	0.04	0.94	-0.07	0.03	0.94*	-0.07	0.04	0.94
Grandparent education									
Some college	-0.41	0.48	0.67	0.20	0.44	1.22	0.56	0.44	1.75
High school ${\mathscr k}$	1	1	!	1	1	1	1	1	1
Marital status									
Single	-0.63	0.52	0.53	-0.64	0.48	.53	-0.29	0.47	0.75
Not single ${oldsymbol{\ell}}$!	l		1	1		l
Grandchild age	0.09	0.04	1.09*	0.04	0.04	1.04	0.01	0.04	1.01
Duration of childcare	0.05	0.03	1.06	0.01	0.03	1.01	0.01	0.03	1.01
Co-residence									
Yes	0.22	0.48	1.24	0.01	0.03	4.75 ***	1.06	0.44	2.70*
N_{O}	1	1	1	1	1	1	!		1
Grandchild care									
Yes	86.0	0.61	2.66	-0.16	.48	98.	1.20	0.50	3.32*
N_0	1		1	1	1	1	1	1	
Grandchild health status									
Disability/ health	-0.21	0.67	0.81	0.34	0.57	1.40	-0.42	0.57	99.0
Psychiatric/ behavioral	2.06	0.77	7.86	1.21	0.77	3.36	2.66	1.18	14.31*
Both types	0.88	1.02	2.42	1.01	1.01	2.75	1.36	1.06	3.90
$N_{One}\mathscr{E}$	1	1	1	1	1	1	!	ŀ	I

Note. The sample size for this analysis was n = 126. b = unstandardized regression coefficient; <math>SE = standard error; AOR = adjusted odds ratio;

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 $[\]mathscr{E}_{ ext{Reference}}$ Reference category.

p < .05, p < .05, p < .01,