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The Role of Grandparents in the Lives of Youth

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Abstract

Recent demographic trends suggest that grandparents may play influential roles in the lives of their grandchildren. Despite this, the role of grandparents in the lives of youth remains an understudied topic. Using data from a nationally-representative group of youth aged 14–19 from the 1992 Wave Two National Survey of Families and Households (NSFH), this study seeks to better understand the role of grandparents in the lives of grandchildren by examining which factors predict the quality of the grandparent-grandchild relationship, and what the implications of this relationship are for youth. Key factors influencing the quality of the grandparent-grandchild relationship are distance, the parent's relationship with both the grandparent and the child, and age of both the child and parent. Results do not support the hypothesis that grandparents influence the dimensions of youth well-being examined here.

Keywords

Grandparents; grandchildren; youth well-being

Recent trends have increased the potential salience of the role of grandparents in the lives of their grandchildren. Life expectancy has increased from less than 50 years in 1900 to almost 80 years in 2005 (National Center for Health Statistics, 2010), meaning that more grandparents are able to enjoy sustained relationships with their grandchildren as they move into adolescence and adulthood. Increased financial security among older Americans, due to the availability of Social Security and pensions, means older people spend more time in retirement, with potentially greater time available to spend with grandchildren (Szinovacz, 1998). Family sizes have decreased as well—in 1955 the average household with children had 2.18 children; now that number is 1.86—meaning that grandparents may be able to invest more in their grandchildren than before (U.S. Census Bureau, 2009a). While increased migration means that fewer children than before live close to their grandparents, newer avenues for communication, such as email, may facilitate contact between grandparents and grandchildren independent of distance. Thus, grandparents have the potential to play an influential role in the lives of their grandchildren. Despite this, the role of grandparents in the lives of youth remains an under-studied topic.

Using data from a nationally-representative group of youth aged 14–19 from the 1992 Wave Two National Survey of Families and Households (NSFH), this study seeks to better understand the role of grandparents in the lives of grandchildren by addressing the following questions: 1) What factors predict the quality of the grandparent-grandchild relationship? and 2) What are the implications of this relationship for youth?

Theoretical Perspectives

Several theoretical perspectives illuminate the factors that may influence grandparent-grandchild relationship quality, as well as the ways in which this relationship may ultimately influence grandchildren themselves. The life course perspective emphasizes the linked lives of family members, in which intergenerational relationships evolve over time and within social contexts, and family members influence each other reciprocally (see Crosnoe and Elder, 2002). This perspective suggests that the grandparent-grandchild relationship may change over time, and that age (of both the grandparent and grandchild) may play an important role in this relationship. Additionally, this perspective highlights the importance of looking at the roles that other family members (for example, parents) may play in the grandparent-grandchild relationship.

The grandparent-grandchild relationship may also be differentiated by gender—of the grandchild, grandparent, or both. For a variety of reasons, due to evolutionary theory (maternal grandmothers are more certain of their biological connection to their grandchildren), social theory (in which females are conceptualized to be more family-oriented), exchange theory (because women are more involved in child-rearing, their own children are more likely to involve them in the lives of their children), or the simple fact that grandmothers tend to live longer than grandfathers (Szinovacz, 1998), it is possible that grandmothers may have a higher relationship quality with their grandchildren than grandfathers, and that this may be particularly so for maternal grandmothers (Spitze and Ward, 1998).

Another perspective suggests that, given limited resources, grandparents adopt a model of “selective investment” (Cherlin and Furstenberg, 1992; p. 96), devoting more resources to grandchildren who are experiencing a crisis such as parental death, divorce, unemployment, illness, or incapacitation. This has been referred to as the latent function hypothesis, and suggests that in general, grandparents may play a minor role in their grandchildren’s lives, except during times of crisis (Clingempeel, Colyar, Brand, and Hetherington, 1992). Indeed, children living with a single mother are more likely to experience a very high level of grandparent involvement—living with a grandparent—than are children living with married parents (in 2009, 9% of all U.S. children were living with a grandparent; 17% of children living with a single mother were doing so; U.S. Census Bureau, 2009b).

Given higher rates of poverty and single-parenthood among African-American families, the latent function hypothesis may manifest itself in race differences in grandparent involvement. However, racial variation in the grandparent-grandchild relationship may reflect cultural differences as well, such as a traditional emphasis on extended family in African-American kinship networks (Hunter and Taylor, 1998). Each of these perspectives would suggest greater grandparental involvement, and perhaps a different type of grandparent-grandchild relationship, in African-American families, compared to white families.

Ecological and family systems theories emphasize the ways in which family members reciprocally influence each other, as well as how they ultimately influence children’s development (King, Russell, and Elder, 1998; Lussier, Deater-Deckard, Dunn and Davies, 2002). This concept is further refined by Silverstein, Giarruso and Bengston (1998) as “intergenerational solidarity”, or “the sentiments and behaviors that link family members across generations” (p. 144). This suggests that the grandparent-grandchild relationship must be looked at in the context of other family relationships—those between parents and grandparents, as well as between grandparents and their own parents and grandparents.

Factors Influencing the Grandparent-Grandchild Relationship

The perspectives reviewed above suggest several factors that may influence the grandparent-grandchild relationship.

Demographic factors

One factor associated with grandparent-grandchild relationship quality is age. The type of relationships that grandparents have with their grandchildren changes as grandchildren age. For young children, grandparents often provide direct care (Cherlin and Furstenberg, 1992), while among older children the grandparent may serve as a confidant and emotionally-supportive mentoring figure (Tomlin, 1998; Silverstein and Marenco, 2001). Research suggests that grandparents are less satisfied with the grandparent-grandchild relationship as the grandchild enters the teenage years (Cherlin and Furstenberg, 1992); grandchildren may feel the same way, reporting a decrease in reported support from grandparents and an increase in conflict from 4th to 10th grades (Furman and Burhmester, 1992). The grandparent-grandchild relationship may change again as grandchildren age further. Crosnoe and Elder (2002) report an improvement in the grandparent-grandchild relationship quality when grandchildren enter college.

Grandparent age may be important as well, as older grandparents may have more time to invest in children, but may be limited in their ability to do so due to potential health problems. As noted by Silverstein, Giarrusso, and Bengston (1998), grandparent age and grandchild age may interact with each other in predicting relationship quality. Additionally, age is confounded with the passage of time and cohort effects, meaning that, to truly understand how the grandparent-grandchild relationship evolves over time, longitudinal data is needed.

Race too may play a role in the grandparent-grandchild relationship. Some studies find that black grandparents take on a more parental role in their interactions with their grandchildren, providing discipline (Cherlin and Furstenberg, 1992), teaching life skills (Tomlin 1998), and generally playing a more salient role in their grandchildren's lives (Hunter and Taylor, 1998) than do white grandparents. In a study of 122 highschoolers, Hirsch, Mickus and Boerger (2002) found that black teens were more likely to talk to their grandparents about issues they were having with their parents than were white teens.

Several studies also point to a role for gender in the grandparent-grandchild relationship. Matrilineal grandparents tend to be more involved with their grandchildren than those on the paternal side (Uhlenberg and Hammill, 1998), and grandmothers tend to be more involved than grandfathers (Silverstein and Marenco, 2001). Reports by teenaged and young adult grandchildren indicate that they report a closer relationship with their maternal grandmothers than any other grandparent (Creasey, 1993; Hirsch, Mickus and Boerger, 2002; Elder and Conger, 2000). There is also some evidence that child gender plays a role in the grandparent-grandchild relationship, with one study suggesting that grandfathers tend to be more involved with grandsons than granddaughters (Cherlin and Furstenberg, 1992), granddaughters having a closer relationship with their grandparents than grandsons (Creasey and Koblewski, 1991), and girls reporting a particularly close relationship to their maternal grandmothers (Lussier et al., 2002).

Grandchildren's relationships with their grandparents may also be contingent upon family structure. Grandchildren's relationships with their paternal grandparents may decline after divorce, especially in cases in which mothers have custody of the grandchildren (Creasey, 1993). On the other hand, grandparents may increase their involvement after a divorce, in order to provide support for a newly divorced parent (Cherlin and Furstenberg, 1992;

Johnson, 1998). Indeed, research shows that grandparental involvement is highest in single-mother families, compared to step- and biological parent families (Clingempeel et al, 1992).

Physical distance

One key factor influencing the grandparent-grandchild relationship is the geographic distance between grandparents and their grandchildren. Studies indicate that grandparent-grandchild relationship quality hinges on frequent contact; living geographically close to a grandparent influences contact, which in turn leads to improved relationship quality (Harwood, 2000; Mueller and Elder, 2003). As noted by Cherlin and Furstenberg (1992), “[i]f you want to predict how often a grandparent will see a particular grandchild, you need to know little more than how far they live from each other” (p. 108). What, then, predicts distance between grandparents and grandchildren? In a study of adult children and their own parents, Compton and Pollak (2011) find that the most consistent predictor of distance is education, with adults who are the most educated living farthest away from their own parents. Other factors associated with living farther from one’s own parents include age, and being white (as opposed to black).

Family interactions

Several scholars have postulated that the interrelationships between family members can influence the grandparent-grandchild relationship in numerous ways. In particular, the parent-grandparent relationship can play a key role in the grandchild-grandparent relationship, with parents serving as “gatekeepers” between the grandchild and grandparent (Mueller and Elder, 2003). Grandchildren are more likely to see their grandparents when their own parents report a better relationship with the grandparents either in adulthood (Cherlin and Furstenberg, 1992; Whitbeck, Hoyt and Huck, 1993) or when they were children (Whitbeck et al., 1993).

Measuring the Grandparent/Grandchild Relationship

The research above describes several factors influencing the grandparent-grandchild relationship. This relationship itself has been measured in a variety of ways. Cherlin and Furstenberg (1992) used grandparent reports to develop three profiles: companionate (focused on pleasurable interactions, but without the grandparent taking direct responsibility for the grandchild); remote; and involved (with the grandparent taking on a parenting role). Mueller and Elder (2003), also using grandparent reports develop six categories: influential (high on all dimensions); supportive (a close relationship but with no disciplinary role); authority-oriented (high on discipline); passive (in the middle on most measures and no discipline provided); and detached (low on all measures).

Other work (Creasey and Koblewski, 1991; Creasey, 1993; Furman and Buhrmester, 1992; Elder and Conger, 2000) utilizes a multi-dimensional grandparent-grandchild relationship quality measure, reported by the grandchild, assessing concepts such as support, companionship, admiration, nurturance, and intimacy. Creasey’s work focused on college students, while Furman and Buhrmester examined a sample of relatively affluent mostly Caucasian children and Elder and Conger consider rural Iowa families. Others have used uni-dimensional measures, such as asking grandchildren to rate the quality of their relationship with their grandparent(s) (Whitbeck, Hoyt and Huck, 1993), or more focused measures, such as Crosnoe and Elder (2002), who assessed grandparent mentoring. Some studies have utilized relationship quality measures that combine physical and emotional closeness, assuming that these two are connected (Clingempeel et al., 1992).

The current study utilizes a multi-dimensional measure of the grandparent-grandchild relationship, reported by the grandchild, and drawn from a nationally-representative sample of youth.

The Grandparent/Grandchild Relationship and Child Well-Being

Relatively few studies have directly related the grandparent-grandchild relationship to measures of child well-being. Grandparents may have a direct influence on grandchildren through their interactions with them. For example, if grandchildren have contact with their grandparents, confide in them, or are close to them, grandparents could provide benefits by serving as role models and discussing appropriate behavior, encouraging academic or other success, helping with homework, or providing advice and emotional support. It is expected that, in general, grandparent involvement would have a positive influence on children, although the possibility exists that in some instances grandparents could serve as negative influences through their behavior or advice.

There are also several pathways through which grandparent involvement could influence youth. Grandparents may influence youth through their influence on parental behaviors. If grandparents provide advice and emotional support to parents, this could translate into decreased parental stress or improvements in parental emotional health, which ultimately may lead to positive youth outcomes. Additionally, Coleman's (1988) model of intergenerational closure suggests that involved grandparents may work with the parent to enforce consistent norms and monitor children's activities. On the other hand, it is possible that grandparents could increase stress within families if, by their involvement, they interfere with or subvert parents' parenting behaviors. Finally, grandchildren themselves could have reciprocal influences on grandparents, by providing emotional or other types of assistance.

Some studies have directly linked grandparent involvement to child well-being. Cherlin and Furstenberg (1992) find that grandparent-reported contact and involvement with grandchildren was not associated with children's behavior problems. Ruiz and Silverstein (2007) used data from the second wave of the NSFH (the same dataset used here) and find that, among youth aged 18–23, grandchild-reported closeness with grandparents is associated with lower levels of depression. This was particularly true for those raised by a single parent, and for those with a better reported relationship with their own parent(s). Elder and Conger (2000), in a multi-generational study of Iowa families, found that youth reports of closeness with grandparents was associated with perceptions of academic competence, with personal and social competence, and with self-confidence and maturity. Grandparent closeness was not associated with youth's grades.

Other studies relate specific grandparent behaviors or characteristics to child well-being. Stein, Newcomb and Bentler (1993) find that grandparental drug use influences grandchildren's behavior problems, while Loury (2006) finds that boys with more highly-educated male relatives (including grandfathers) achieved more education themselves, controlling for a host of family-level factors related to education.

Other studies examine how grandparent involvement interacts with parenting behaviors and other characteristics to influence children. Barnett, Scaramella, Nepl, Ontai and Conger (2010) find that, in a sample of 3- and 4-year olds, grandparent involvement (based on maternal reports) reduces the detrimental influence on children of negative reactivity and mothers' harsh parenting. Silverstein and Ruiz (2006) with data from the second and third waves of the NSFH, show that when grandparent-grandchild cohesion was high, mothers' depression was not associated with the depression of young adults, suggesting that

grandparents may, in the authors' words "buffer the intergenerational transmission of depression" (p. 609).

Summary

Taken together, the literature reviewed above suggests that grandparents' relationships with their grandchildren can take several forms, and that a variety of factors influence this relationship. While previous research points to specific factors that influence the grandparent-grandchild relationship, few studies have considered the role of multiple factors, and few use national data to do so. Thus, in order to put into greater context our later analyses which focus on the consequences of this relationship for youth, a first step of our analysis is to examine the various factors that influence the grandparent-grandchild relationship.

The core of our analysis is to examine the implications for youth of the grandparent-grandchild relationship. As noted above, adolescence is a time in which the grandparent-grandchild relationship undergoes some important transitions, and a greater understanding of the consequences of this relationship for youth is needed. We examine the ways in which grandparent-grandchild relationship quality may influence youth outcomes that are predictors of young adult success, including grades, risky behaviors, and sexual behavior, using national data. Given grandparents' role during adolescence as potential mentors and role models, these dimensions of youth behavior may be particularly influenced by the grandparent-grandchild relationships.

The goal of this study is to ask: 1) What factors predict the quality of the grandparent-grandchild relationship? and 2) What are the implications of this relationship for youth?

It is important to note that youth who report a closer relationship with their grandparents may be a select group; for example, grandparents may be more emotionally close to children who are already doing well in school, or who are successful in other domains. Alternatively, grandparents may step in when children are faring poorly. Each of these scenarios could lead to biased estimates of the association between grandparent involvement and youth outcomes. Analyses examining the factors that predict the grandparent-grandchild relationship can help to inform this issue.

We also conduct a series of robustness checks attempting to limit the biasing role of selection and reverse-causality in our analyses. To do this, we substitute proxy measures of grandparental involvement for our measure of the grandparent-grandchild relationship quality, using four measures that are likely associated with the grandparent-grandchild relationship quality, but less likely to be associated with unmeasured factors that may differentiate children with various levels of grandparent relationship quality. First, a measure of the number of the child's living grandparents is used as a proxy for potential grandparent involvement, as the more grandparents a grandchild has to choose from, the more likely he or she is to have a good relationship with at least one. Additionally, because other research has shown that matrilineal grandparents tend to be more involved with their grandchildren (Uhlenberg and Hammill, 1998), and that grandmothers tend to be more involved than grandfathers (Silverstein and Marenco, 2001), we also use indicators of whether a child has at least one living grandparent on the maternal side, whether the maternal grandmother is alive, and whether the child has a living grandmother. While these measures are likely somewhat correlated with family characteristics, such as parental education or family income, the death of a grandparent is also an exogenous event, outside of the direct control of the child or his or her parents. As such, we view these analyses as one attempt to isolate,

albeit imperfectly, a measure of grandparent involvement that is less likely to be influenced by unmeasured and potentially biasing characteristics of children and their families.

Building off of the research described above, we test the following hypotheses:

- H1** Younger children, girls, African-American youth, those living closer to their grandparents, and those with a higher quality parent-grandparent relationship will report a higher quality relationship with their grandparent.
- H2** Both a higher quality grandparent-grandchild relationship, and less physical distance between grandparents and grandchildren, will be associated with improved youth well-being.
- H3** The relationship between the grandparent-grandchild relationship and youth well-being will be attenuated once issues of selection are addressed.
- H4** The grandparent-grandchild relationship will be particularly beneficial for certain youth--those living with a single parent, African-American youth, and girls.

Data

The analyses presented here use data from second wave of the National Survey of Families and Households (NSFH). The NSFH began in 1987–1988 with a nationally representative sample of 13,007 households and consisted of interviews with a randomly selected main adult respondent from each household. In Wave 1, one focal child aged 5 to 18 years old was also randomly selected from among children living in each of the households and the main respondent was interviewed about the characteristics of this focal child. The second wave was collected in 1992–1994 and included telephone interviews with these originally chosen focal children who were aged 10 to 23 years old. A third wave was collected in 2001–2002 and included interviews with these focal children now aged 18–34 (Sweet and Bumpass, 1996).

All together, data was collected on 2,505 focal children through telephone interviews in Wave 2. A majority, (92.74% of our final sample), of focal children were biological children of the main NSFH respondent. The NSFH has the richest data on grandparent involvement of any national dataset. In the second wave, focal children were asked questions about which of their grandparents were living, how often they have contact with each grandparent, whether they ask each grandparent for advice, and how close they feel to each grandparent.

The analyses presented here utilize data from focal children who were aged 14 to 19 years old in Wave 2 and were still residing in the household of the main respondent. We also restrict our sample to focal children who did not have a grandparent living in the household, but who had at least one living grandparent, giving us a final sample of 551 children. We limited our data to the 14 to 19 age range in order to obtain a uniform set of age-appropriate outcome variables for the focal children, particularly in risky behaviors and sexual activity, since questions regarding these outcomes were either not asked for very young children aged 13 or under (e.g. about sexual activity) or could be inapplicable (e.g. for activities such as smoking marijuana). These children were on average 15.58 years old in Wave 2 (S.D. =1.29).

Measures

Dependent Variables

The dependent variables used in this study capture three key domains of youth well-being. First, **school performance** is measured using the focal child's self-reported grades in

school. This variable measures grades in categories that range from 1 (“F’s”) to 8 (“Mostly A’s”), with intermediate categories such as “A’s and B’s” (7), “B’s” (6) and so on. A higher score on this scale represents a higher grade. For analyses looking at grades as an outcome, our sample is limited to youth who are still in high school ($N = 532$).

Second, we utilize an **index of children’s risky behavior** that captures the focal child’s self-reported substance use. Three dummy variables indicating whether the focal child has, in the last 30 days, a) smoked a cigarette, b) drank alcohol or c) used marijuana are summed together to create a risky behavior index that ranges from 0 to 3. This variable has a Cronbach’s alpha of 0.52

Finally, we use a variable indicating whether the child has **ever had sex**. This variable is coded as 1 if the child reported ever having had sex and 0 if they did not. Due to sensitive nature of the question, children were given the option of not answering this question if they felt uncomfortable; thus there is more missing data on this measure than on other variables ($N = 522$). Children whose responses were missing on this variable differed significantly from other children in the sample on key characteristics. Children who did not answer the question on sexual activity were older, more likely to be male, and more likely to be from minority families. They were also more likely to be from single parent households with less educated parents and lower household income. These children also showed lower grades and higher risky behaviors but were more likely to report that they had good relationships with their grandparents, all compared to children who did answer the questions on sexual activity.

Independent Variables

Relationship of Grandchildren with Grandparents—In order to measure the quality of the relationship of the focal child with their grandparents, we create a composite measure of **grandparent-grandchild relationship quality** using three youth-reported variables taken from the second wave of the NSFH. First is the focal child’s rating of how close he or she felt with each living grandparent, measured using a variable that ranges from 0 “not at all close” to 10 “extremely close”. While this variable is measured for all living grandparents (up to four), only the closeness of the child’s relationship with the highest rated grandparent is used in the scale (following Ruiz and Silverstein, 2007). This eliminates the possibility of an influential and meaningful relationship with one grandparent being cancelled out by mediocre or absent relationships with other grandparents.

Second, we use a variable indicating how frequently a child is in contact with their grandparents through activities such as talking on the telephone or receiving letters. This variable is measured on a scale of 1 (“not at all”) to 5 (“more than once a week”) with intermediate categories such as “once a year”(2) or “1–3 times a month” (4). Again, we use information from the highest-rated set of grandparents. For this measure, children were not asked to rate each of four possible grandparents, but rather both the set of maternal grandparents and the set of paternal grandparents. This measure of frequency of contact differs from that used by Ruiz and Silverstein, which measured how often children saw their grandparents in person in the past year.

Finally, the third component of this scale is a single measure of how likely the child is to consult or confide in any grandparent if he or she had a major decision to make. This variable ranged from 1 (“definitely wouldn’t”) to 5 (“definitely would”) and is not asked about a specific grandparent, but rather any grandparent in general.

Following Ruiz and Silverstein (2007), we then construct a composite measure of the quality of the grandparent-grandchild relationship with a factor score using principal components

analysis of the three measured described above. The components of this composite variable are fairly internally reliable with a Cronbach's alpha of 0.61.

It is important to note that this composite measure of the grandparent-grandchild relationship quality does not capture children's relationship with a specific grandparent, but rather their overall relationship with their grandparents. This is due to the way that the various questions were asked. The measure of closeness to grandparents was asked separately for 4 different grandparents (maternal/paternal, grandmother/grandfather). In contrast, frequency of contact was asked only about maternal and paternal grandparents as a set. Finally, the measure of whether the child would confide in grandparents was asked about all grandparents as a group. This means that we are not able to create separate composite relationship quality measures for each grandparent. Additionally, our composite may reflect children's reports about different grandparents. For example, the closeness measure may be taken from the child's report of closeness to the maternal grandmother (if this was the highest ranked grandparent), while the measure of frequency of contact may reflect contact with the paternal grandparents as a set (if this is the highest ranked set of grandparents in terms of contact). Supplementary analyses (not shown here) reveal that in 93% of the cases, the grandparent to whom the focal child reports being closest is from the same set (maternal or paternal) with whom the grandchild reports having the greatest contact.

We utilize a composite measure in our main analyses in order to examine the influence on grandchildren of their relationship with their grandparents in the broadest possible sense, not limiting ourselves to certain aspects of the relationship in particular. We also, however, perform analyses in which the individual components of the relationship quality composite measure are examined separately.

Distance to nearest grandparent(s)—We also use in our analysis a measure of physical distance of the youth from his/her closest grandparent(s). We measure **grandparent-grandchild distance** based on the main parent respondent's report of how far, in miles, a) his/her parents (i.e., the child's grandparents) live from the household, and b) how far his/her spouse's parents live from their household. We then use the distance to the child's closest biological grandparent. In our analyses, we use a dummy variable that indicates whether the closest grandparent(s) lives 100 miles or farther from the grandchild. The distance of 100 miles or farther represents the top quartile of the distribution of the distance measure across all focal children in the sample and therefore indicates a grandparent who lives relatively far from the grandchild, compared to most other youth in the sample.

The physically closest grandparent may not necessarily be the one to which the grandchild reports the highest level of emotional closeness or contact (see above). Cross tabulation between these measures, however, suggest that reports of emotional closeness and physical proximity were consistent, with approximately 80% of children reporting that the grandparent to whom they are closest is the same grandparent who lives closest to them in terms of physical distance (results not shown).

Parent-child relationship—Because the grandparent-grandchild relationship may be influenced by the quality of the parent-child relationship, we add a control for child-parent relationship quality. This is based on the child's characterization of his or her relationship to the parent and is measured on a scale of 0 "really bad" to 10 "absolutely perfect". For children living with both biological parents, this is captured through the mean of child-reported relationship quality measures for the two parents. For children living with single

parents, stepparents or living with unmarried cohabiting parents, the measure reflects the relationship quality with their biological parent.

Number of living grandparents—In our main analyses, we control for the number of grandparents who are alive at the time of the survey in order to account for the fact that some children have more grandparents to draw on than do others. This measure is simply the sum of the number of both maternal and paternal biological grandparents who were alive and ranges from 1 to 4. Another variable used as a proxy for grandparent involvement measures the total number of maternal grandparents alive, ranging from 0 to 2. A third proxy measure is a dummy variable indicating whether the child's maternal grandmother is alive, and a fourth is a dummy variable indicating whether any grandmother was alive.

Control Variables

All analyses control for individual, family and demographic characteristics of children, their parents and their grandparents. Analyses control for focal child age, gender (coded 1 if boy) and for race using a set of mutually exclusive dummy variables indicating whether the child is non-Hispanic White (the omitted category), non-Hispanic Black, Hispanic, or of another race/ethnicity. Parents' educational attainment is measured with dummy variables indicating whether the main respondent parent had: no high school degree (omitted category), only a high school degree, some college, or a college degree. Analyses also control for family structure using a set of mutually exclusive indicators of whether the child is living with married biological parents (the omitted category), a single parent, stepparents, or unmarried cohabiting parents. Other demographic controls include the parent respondent's age, whether the respondent was female and the number of child's siblings in the household.

A series of controls for grandparent characteristics are also included. The parent respondent's closeness with the child's grandparents is based on a scale of 0 "really bad" to 10 "absolutely perfect", and reflects the biological grandparent the parent reports feeling the closest to. We also control for the age and health of the parent respondent's biological parents. If both grandparents are still alive, we calculate the mean of each grandparent characteristic across both. Grandparent age is measured in years. The variable indicating grandparent health is based on the parent respondent's report of the physical health status of the child's grandparents measured on a scale of 0 "very poor" to 5 "excellent".

A variable for total family income is also included in the analysis. This measure includes the income of the main respondent and up to two other household members (if available) from wages and salaries or any self-employment activity in the last year and is measured in thousands of dollars (1992 dollars). We use the natural logarithm of this figure in our analysis. Finally, we control for whether focal child's mother was employed. Due to an unusually large number of missing data points in the maternal employment indicator, we coded the missing data points as 0 in the original variable and created a separate missing data indicator for this variable.

Table 1 presents the descriptive statistics for all variables used here. In terms of distance, youth lived, on average, 274 miles away from their geographically closest grandparent. Approximately half of the youth lived less than 9 miles from their closest grandparent, with approximately a fifth of focal children living less than 1 mile away.

Looking at the three components of the grandparent-grandchild relationship quality scale, we see an average score of 8 out of a total of 10 possible points for the youth's report of the closeness of the highest-rated grandparent-grandchild relationship; the average level of contact with the highest-rated grandparent is 3.94 out of a 5 point scale, representing a frequency of contact of close to 1 to 3 times a month; and the average response for whether

the youth would confide in a grandparent is 2.89 points out of a 5 point scale, representing a youth reporting that there is approximately a 50-50 chance that he or she would confide in a grandparent.

Looking at our three measures of youth well-being, the average reported grades were 5.58, which represent a grade of “B’s and C’s”. The mean score on the risky behavior scale is low, only 0.77 out of a total possible of score of 3. Finally, 35.1% of the youth aged 14 to 19 years old who responded to the question regarding sexual activity reported that they had ever had sex.

Among the demographic variables, the average age for children in the sample was 15.6 years and the average adult respondent (child’s parent) in the sample was 41.3 years old. In terms of living arrangements, 50.5% of the children lived with their married biological parents whereas about 24% of the children were living with an unmarried parent. The majority of the sample, 73%, was White (non-Hispanic) whereas 17% of the children were non-Hispanic Black and 8% were Hispanic. The average family had a total household income of approximately \$46,800 at the time of the survey.

As Table 1 shows, missing data occurs on some of the individual measures used in our analysis. We use listwise deletion to deal with missing data.

Method

As noted above, the goal of this paper is to examine predictors of grandparent-grandchild relationship quality, and then examine the association between the grandparent-grandchild relationship quality and outcomes for youth. First, we examine whether and how characteristics of grandchildren and their families influence the grandparent-grandchild relationship quality. We first utilize OLS regressions to examine the factors that influence youth’s reports of their relationship with the grandparents, controlling for the full set of covariates listed above.

Our next analyses relate the grandparent-grandchild relationship quality measure to three aspects of youth well-being: grades in school, risky behaviors in the last 30 days, and whether the child has had sex. For the dependent variable of youth grades, which is a continuous measure ranging from 1 to 8, we utilize OLS regressions (as noted below, we also perform some analyses using an ordered logistic regression for the grades outcome). To analyze the outcome of youth risky behavior, which ranges from 0–3, we utilize an ordered logit regression, which is appropriate for discrete outcomes with ordinal rankings. In contrast, other options, such as multinomial regressions, do not take account of the fact that the response options are ranked with some being “better” than others (Greene, 1997). Ordered logit analyses are based on the assumption that the relationship between independent and dependent variables is constant across all levels of the dependent variable. We performed a series of Brant test (results available upon request) and found that this assumption held (Stata Annotated Output, 2010). For our ordered logit analyses, we present proportional odds ratios, which show the odds of being in a given category on the risky behavior index, compared to all other categories (i.e., the odds of being in the highest category, 3, vs. being in 0, 1 or 2). Finally, we utilize a logistic regression to examine having sex, and present odds ratios.

Results

Table 2 presents the results of OLS multivariate analyses examining predictors of the composite measure of grandparent-grandchild relationship quality. Results show that that distance is a strong predictor of relationship quality; children who live 100 miles or farther

from their grandparent have a relationship quality that is 36% of a standard deviation lower than those who live closer. We also see that children who have a better relationship with their parents and whose parents have better relationships with their own parents, as well as those who have a larger number of living grandparents, report stronger relationships with their grandparents, while children whose parents are older report significantly weaker relationships with them.

We next present results from series of regression models examining the association between grandparent-grandchild relationship quality and youth outcomes. Results in Table 3 show that the grandparent-grandchild relationship quality is not associated with any of the youth outcomes. However, youth who have a better quality relationship with their parent have higher grades and exhibit less risky behavior. The other covariates in the model operate in the expected directions, with older children reporting more risky behavior and increased likelihood of having sex, and youth with more educated parents reporting higher grades, for example.

As noted above, it is possible that children's reports of the quality of their relationship with their grandparents may be associated with unmeasured factors that are also correlated with their outcomes (although this concern is lessened due to the null results in Table 3). We perform a series of analyses to address this issue of selection by using four proxies for grandparent involvement described above. Results (not shown) confirm the results shown in Table 3, suggesting no association between the grandparent-grandchild relationship and the outcomes examined here.

Finally, as noted above, it is possible that grandparent involvement may matter most for certain sub-groups of children. We examined whether the association between the grandparent-grandchild relationship quality index and the outcomes we examined differ by child gender, family structure (single vs. not single parent), and by race/ethnicity (African-American non-Hispanic vs. White non-Hispanic) by interacting these indicators with our measure grandparent-grandchild relationship quality when predicting the three youth outcomes. Results from these analyses (not shown here) suggest that a pattern of different results by groups does not exist.

Additional Analyses

Our main analyses relate a composite measure of the grandparent-grandchild relationship quality to youth well-being, and results from Table 3 suggest that this measure is not associated with the youth outcomes examined here. In additional analyses, we test the associations between the three individual components of this composite measure and youth outcomes. Results (not shown) indicate only one association with youth outcomes--specifically, youth who report a higher overall relationship quality with a grandparent also report having lower grades.

We also performed some analyses including a measure of how often the youth sees his or her grandparents, in order to determine whether in-person contact with a grandparent plays a key role in predicting youth outcomes. Specifically, we used a measure indicating how often the youth had seen each grandparent in the past year, which ranged from 1 (not at all) to 6 (several times each week), using the measure from the highest-ranked grandparent. Results from these analyses (not shown) do not differ from our main analyses, in which this measure is not included. Further, the measure of how often the youth saw the grandparent was not a significant predictor of any of the outcomes examined here.

Discussion

This paper sheds light on the role of grandparents in the lives of youth by examining both the factors that are associated with the grandparent-grandchild relationship, as well as the influence of this relationship on three important dimensions of youth well-being.

Our first hypothesis was that younger children, girls and African-American youth would report a higher-quality relationship with their grandparents. Results show only that younger children have a higher grandparent-grandchild relationship quality than other youth, confirming previous research described above. It is possible that the lack of race differences in grandparent involvement is due to the fact that we controlled for several factors that may be correlated with such involvement and that may differ by race. As the latent function hypothesis (Clingempeel, Colyar, Brand, and Hetherington, 1992) suggests, higher levels of disadvantage among African-American families may precipitate greater grandparental involvement. Indeed, other analyses, which did not control for factors such as family structure, maternal education, and household income that are related to potential disadvantage, did find evidence that African-American youth have stronger relationships with their grandparents.

Our hypothesis that physical distance would be a significant predictor of the grandparent - grandchild relationship was confirmed. Results show that that living more than 100 miles from the nearest grandparent is associated with reduction in grandparent-grandchild relationship quality of 35% of a standard deviation. This is consistent with other studies (Harwood, 2000; Mueller and Elder, 2003; Cherlin and Furstenburg, 1992), and is confirmed and illuminated here in the context of a national sample of youth, and holding constant a wide range of other factors.

Also confirming our hypothesis, results show that another key predictor of the grandparent-grandchild relationship is the parent-grandparent relationship quality. Indeed, we found that a one point increase in the parent-grandparent relationship is associated with a 13% of a standard deviation increase in the grandparent-grandchild relationship quality, controlling for a host of other factors. As suggested by life course theory, interrelationships between family members can influence the grandparent-grandchild relationship in numerous ways. In particular, parents can serve as gatekeepers between grandparents and grandchildren. This gatekeeper role could be a literal one in which parents only permit or facilitate interactions between grandchildren and grandparents when they themselves are close to the child's grandparents. It could also be a more figurative role, in which youth observe their own parents' interactions with the grandparents and model their own relationship accordingly. Regardless, our findings suggest that parents' own strong relationships with the child's grandparents can overcome the barrier of physical distance and help establish a strong grandparent-grandchild relationship. This confirms the gatekeeper role of parents in the grandparent-grandchild relationship (Mueller and Elder, 2003), and extends this finding by considering a national study of teens and by comparing the role of relationship quality with that of a wide range of other factors.

Less examined in the previous literature is the influence of the parent-child relationship on the grandparent-grandchild relationship. We find that a one point increase in the child-parent relationship is associated with an increase in the grandparent-grandchild relationship quality of 13% of a standard deviation, the same effect size as found for the parent-grandparent relationship quality. This could be due to a variety of factors, one of which may be selection —families or circumstances in which children feel close to their parents also the same in which they feel close to their grandparents for reasons that we do not observe. It is also possible that strong parent-child ties, combined with strong parent-grandparent relationships,

lay the groundwork for a scenario in which children are encouraged to develop close bonds with their grandparent. Future work could more carefully consider the role of the parent-child relationship in the context of the grandparent-grandchild dynamic.

We also hypothesized that the grandparent-grandchild relationship quality would be associated with youth well-being. We did not find support for this hypothesis. When looking at the three individual components that make up our measure of the grandparent-grandchild relationship we found evidence that one component—a measure of how close the youth is with a specific grandparent—was associated with lower grades. This finding is surprising, but we are hesitant to make too much of it. Out of 12 possible relationships between the grandparent-grandchild relationship and youth outcomes that were tested, only one, or 8% was significant, roughly what one would expect due to simple chance.

There are a variety of factors that could account for these null findings. First, it is possible that, as suggested by Cherlin and Furstenburg (1992), grandparents play only peripheral roles in the lives of their grandchildren, making findings on child well-being difficult to detect. Other studies looking specifically at grades have also failed to find a link between the grandparent-grandchild relationship quality and youth grades (Elder and Conger, 2000). It is also possible that our lack of findings are driven by data limitations. Although the NSFH contains the most detailed information on grandparent-grandchild relationship quality of any national study, it may not capture well the actual ways that grandparents and grandchildren interact with each other. Additionally, it is possible that the outcomes examined here—risky behavior, sex and grades—are not those that are influenced by grandparent involvement. Finally, it is possible that grandparent involvement only matters for youth who are facing difficulties. We tested this by examining whether grandparents played a stronger role for certain youth, such as those living with a single parent; however sample size limitations made it difficult to discern patterns among subgroups.

This study contains several limitations, which should be noted. First, while this study utilized the only nationally-representative dataset containing youth-reported measures of the grandparent-grandchild relationship, the data is somewhat old (from 1992–1994). It therefore does not reflect current ways that youth may interact with their grandparents, such as through email or social networking, and also does not reflect current economic, policy or demographic trends and climate. Including measures of children's relationships with their grandparents in more current, ongoing, studies would allow for a wider set of data on which researchers could draw to address these issues.

Additionally, we utilized only one wave of data from the NSFH, making longitudinal analyses impossible. We did so because of the long lag between assessments of the NSFH, and the resulting change between waves in assessments of youth outcomes and the grandparent-grandchild relationship. The lack of longitudinal data means that we were not able to employ more sophisticated longitudinal analytical methods.

Additionally, we utilized a composite measure of the grandparent-grandchild relationship quality that, while having several strengths, also has some limitations. In particular, the composite contains youth reports on their closeness to, contact with, and willingness to confide in potentially different grandparents—youth closeness to their maternal grandmother, and contact with their paternal grandparents, are combined in the same composite measure. This means that we are measuring the grandchild's relationship with grandparents in general, rather than with one specific grandparent. However, as noted above, in the majority of cases the youth were reporting on the same grandparent or sets of grandparents for the individual measures in the composite.

Finally, the age range of our sample could be a limitation. As noted above, the relatively limited age range could make it difficult to discern patterns of relationship quality by age. On the other hand, the fact that our age ranges from 14–19 means that various ages of youth have had different lengths of time in which to engage in risky behaviors. We addressed this by using data reporting on risky behaviors that reflect the past 30 days' use. However, our measure of whether the youth had had sex is a lifetime measure and therefore is somewhat problematic in this regard. It should also be noted that, because we use a lifetime measure of sexual behavior, this measure could reflect behaviors that took place before the current grandparent-grandchild relationship.

Despite these limitations, this study provides some new knowledge on the ways in which grandparents are involved in the lives of youth. We show that while physical distance between grandparents and grandchildren plays a key role in the grandparent-grandchild relationship, a variety of other factors are important as well—in particular the child-parent and parent-grandparent relationships. Like other studies (Cherlin and Furstenberg, 1992), ours does not provide strong evidence that the grandparent-grandchild relationship is associated with aspects of youth well-being. It remains to be seen whether a fuller set of youth outcomes might be influenced by grandparental involvement, or whether involvement plays a more key role at other stages of the life course. Because the role of grandparents in the lives of youth is such an understudied topic, more work is needed to reinforce these findings and further illuminate the relationships examined here.

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Table 1

Descriptive Statistics

Variable	Obs	Mean or %	Std. Dev.	Min	Max
<u>Grandparent Measures</u>					
Distance to the Nearest Grandparents in 100's of Miles	537	2.741	9.885	0	90
Nearest GP lives over 100 Miles from Child	493	0.245		0	1
Grandparent-Grandchild Relationship Quality Composite (Standardized)	547	-0.189	1.058	-3.888	1.456
<u>Components of Relationship Quality Composite</u>					
Relationship Quality Score with Grandparents (Maximum)	551	7.998	2.030	0	10
Contact with Grandparents via letters, phone calls (Maximum)	548	3.942	1.261	1	5
Whether Child would Confide in Grandparents	550	2.885	1.243	1	5
<u>Youth Wellbeing</u>					
Grades of Child	532	5.575	1.677	1	8
Risky Behavior Index	551	0.773	0.909	0	3
Child has had sex	522	0.351		0	1
<u>Child's Characteristics</u>					
Age of Child	551	15.584	1.290	14	19
Child is Boy	551	0.485		0	1
Child is White Non Hispanic	550	0.729		0	1
Child is Black Non Hispanic	550	0.169		0	1
Child is Hispanic	550	0.080		0	1
Child is of Other Race	550	0.022		0	1
Child lives with Married Bio. Parents	549	0.505		0	1
Child lives with Single Parents	549	0.239		0	1
Child lives with Step Parents	549	0.230		0	1
Child lives with Cohabiting Parents	549	0.027		0	1
Number of Siblings of Child in the Household	547	2.356	1.967	0	12
<u>Parent Characteristics</u>					
Parent (Respondent) is Female	549	0.687		0	1
Age of (Respondent) Parent	549	41.266	5.521	29	61
Parent has less than a High School Degree	549	0.144		0	1
Parent has a High School Degree	549	0.663		0	1

Variable	Obs	Mean or %	Std. Dev.	Min	Max
Parent has a College Degree	549	0.111		0	1
Parent has Some College	549	0.086		0	1
Mother is Employed (Missing=0)	551	0.728		0	1
Mother Employed Variable is Missing	551	0.172		0	1
Parent (Respondent) Relationship Quality with Grandparent	549	8.461	1.692	0	10
Parent Relationship Quality with Child (Respondent)	508	7.824	1.824	0	10
<i>Grandparent Characteristics</i>					
Grandparents' Age (Mean)	517	68.495	8.106	47.5	94
Grandparents' Health (Mean)	508	3.379	0.911	1	5
Parent's Relationship Quality with Child's GP	510	7.616	2.227	0	10
<i>Proxy Variables for Grandparent Involvement</i>					
Number of Grandparents who are Alive	551	2.650	0.981	1	4
Number of Maternal Grandparents who are Alive	551	1.428	0.642	0	2
Maternal Grandmother is Living	550	0.827		0	1
Any Grandmother is Alive	551	0.966		0	1
<i>Household Economic Status</i>					
Log of Total Household Income	541	10.464	0.889	5.298	13.459

Table 2

Demographic Characteristics and Physical Distance predicting Grandparent Grandchild Relationship Quality

VARIABLE	Grandparent-Grandchild Relationship Quality Principal Components Factor Score
	OLS Coefficient
Nearest GP lives over 100 Miles from Child	-0.356 *** (0.102)
Parent's Relationship Quality with Child's GP	0.134 *** (0.026)
Parent's Relationship Quality with Child (R)	0.131 *** (0.024)
Child is Boy	0.034 (0.086)
Age of Child	-0.060 * (0.035)
Child is Black Non Hispanic	0.103 (0.127)
Child is Hispanic	-0.196 (0.163)
Child is of Other Race	0.068 (0.319)
Parent (R) is Female	0.076 (0.108)
Parent's (R) Age	-0.030 *** (0.011)
Grandparents' Age (Mean)	-0.005 (0.007)
Grandparents' Health (Mean)	-0.006 (0.048)
Number of Siblings of Child in Household	0.031 (0.025)
Number of Grandparents Alive	0.099 ** (0.048)
Parent has a High School Degree	-0.074 (0.137)
Parent has a College Degree	0.140 (0.184)
Parent has Some College	-0.024 (0.199)
Child lives with Single Parents	0.009 (0.123)
Child lives with Step Parents	-0.126 (0.128)
Child lives with Cohabiting Parents	0.074 (0.270)
Log Total Household Income	0.067 (0.062)
Mother was Employed	-0.089 (0.144)
Mother Employed Missing	0.245 (0.175)
Constant	-0.722 (0.950)
Observations	439
R-squared	0.264

Standard errors in parentheses;

p<0.01,**
p<0.05,*
p<0.1

Table 3

Grandparent-Grandchild Relationship Quality Composite Measure and Distance predicting Child Outcomes

VARIABLE	Grades	Risky Behavior Index	Had Sex
	OLS Coefficient	Ordered Logit Prop. Odds	Odds Ratio
GP-GC Relationship Quality PC Factor Score	-0.073 (0.091)	0.935 (0.113)	1.094 (0.150)
Parent's Relationship Quality with Child's GP	0.042 (0.049)	0.993 (0.066)	1.103 (0.085)
Parent's Relationship Quality with Child (R)	0.138*** (0.045)	0.829*** (0.049)	0.919 (0.064)
Nearest GP lives over 100 Miles from Child	0.245 (0.191)	0.786 (0.211)	0.720 (0.220)
Child is Boy	-0.491*** (0.159)	1.333 (0.292)	1.583* (0.392)
Age of Child	-0.009 (0.066)	1.693*** (0.151)	2.160*** (0.237)
Child is Black Non Hispanic	-0.411* (0.236)	0.425** (0.145)	2.790*** (1.046)
Child is Hispanic	0.133 (0.303)	0.470* (0.208)	0.642 (0.307)
Child is of Other Race	1.075* (0.585)	1.144 (0.814)	1.185 (1.060)
Parent (R) is Female	-0.090 (0.201)	1.366 (0.396)	0.948 (0.305)
Parent's (R) Age	0.021 (0.021)	0.971 (0.028)	0.939* (0.031)
Grandparents' Age (Mean)	0.009 (0.013)	0.993 (0.017)	1.023 (0.020)
Grandparents' Health (Mean)	0.120 (0.089)	1.050 (0.129)	0.719** (0.098)
Number of Siblings of Child in Household	-0.053 (0.046)	1.055 (0.062)	1.083 (0.081)
Number of Grandparents Alive	0.106 (0.090)	0.804* (0.096)	0.874 (0.121)
Parent has a High School Degree	0.695*** (0.252)	0.551* (0.188)	0.292*** (0.114)
Parent has a College Degree	0.764** (0.340)	0.507 (0.241)	0.475 (0.256)
Parent has Some College	0.749** (0.366)	0.578 (0.290)	0.527 (0.298)
Child lives with Single Parents	-0.012 (0.229)	2.028** (0.633)	1.749 (0.625)
Child lives with Step Parents	-0.473** (0.236)	1.821* (0.567)	1.766 (0.648)
Child lives with Cohabiting Parents	-0.641 (0.516)	3.170* (1.952)	3.607 (2.865)
Log Total Household Income	0.151 (0.114)	1.266 (0.203)	1.024 (0.185)
Mother was Employed	0.179 (0.267)	0.941 (0.352)	3.343** (1.758)
Mother Employed Missing	-0.094 (0.325)	0.797 (0.361)	3.088* (1.843)
Constant	0.240 (1.757)		
Observations	428	439	417
R-squared	0.175		
Log-Likelihood		-365.6	-210.5
Chi-Squared		90.87	127.2
DF		24	24