Social Disadvantage and Instability in Older Adults' Ties to Their Adult Children

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Abstract

Objective—We examine whether racial and socioeconomic factors influence older adults' likelihood of experiencing instability in their social network ties with their adult children.

Background—Recent work shows that socially disadvantaged older adults' social networks are more unstable and exhibit higher rates of turnover, perhaps due to greater exposure to broader social-environmental instability. We consider whether this network instability applies to older adults' ties with their adult children, which are often the closest and most reliable social ties in later life.

Methods—We use two waves of data from the National Social Life, Health, and Aging Project (N=1,456), a nationally representative, longitudinal study of older Americans. Through a series of multivariate regression models, we examine how race and education are associated with how frequently older adults reported being in contact with child network members, and how likely older adults were to stop naming their children as network members over time.

Results—African American and less educated individuals reported significantly more frequent contact with their adult child network members than did whites and more educated individuals. Nevertheless, these populations were also more likely to stop naming their children as network confidants over time.

Conclusion—African American and less educated older adults are at greater risk of losing access to the supports and other resources that are often provided by adult children, or of not being able to consistently draw on them as they age, despite the fact that these ties demonstrate greater potential for support exchange at baseline.

Keywords

aging; education; family relations; inequalities; parent-child relationships; race

Later life is a time of transitions and challenges – a time when individuals and those around them must sometimes adapt to sudden changes in life circumstances. A growing body of research emphasizes the implications of social network ties for important outcomes such as

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loneliness and well-being during this period of life (e.g., Ashida & Heaney, 2008; Steptoe et al., 2013; York Cornwell & Waite 2009), so more social scientists have begun to study how, exactly, older adults' social networks change with age. This work provides evidence that, contrary to the stereotypical image of social idleness, social networks in later life are typically characterized by considerable change – the loss of old ties, the addition of new ones, and varying degrees of turnover (Schwartz & Litwin, 2018). These changes affect even the closest of older adults' social ties. For example, one study finds that 93% of older adults experience some form of change or turnover in their core discussion networks over a five-year period (Cornwell et al. 2014).

One important pattern that has begun to emerge in this body of work is that the kinds of changes that occur within older adults' social networks appear to vary by social disadvantage. Building on the observation that disadvantaged groups are more likely to be exposed to an entire constellation of adverse circumstances that give rise to social-environmental instability (e.g., higher rates of unemployment, eviction, neighborhood disorder, and health problems and mortality among one's family and friends), scholars have begun to explore the possibility that network instability is more common within socially and materially disadvantaged groups. Indeed, researchers have found that the nature of changes in important features of social networks, such as their composition, varies by race and socioeconomic status (Ajrouch, Antonucci, & Janevic, 2001; Shaw, Krause, Liang, & Bennett, 2007). African Americans and lower-SES individuals experience more losses or departures of core social network members during a given period of time than do whites and higher-SES individuals (Cornwell, 2015; Fischer & Beresford, 2015; Schafer & Vargas, 2016). Even prior to entering later life, African Americans are more likely than whites to experience the death of a member of their immediate family network (Umberson et al., 2017). This is not to say that we would not expect to see variation in levels of network stability among more advantaged social groups, such as whites and highly educated professionals, especially when there is variation in their exposure to specific adverse life circumstances. But the above findings do suggest that socially disadvantaged older adults in particular have less stable social networks in general.

To date, we know little about how, exactly, the material and social aspects of disadvantage shape older adults' social networks, or through what mechanisms. Perhaps more importantly, we know little about how far these aspects of disadvantage reach into older adults' social networks. Does social disadvantage in later life entail such extreme social-environmental turbulence that it shakes the very core of older adults' social networks? To explore this question, we assess the impact of disadvantage on what are usually seen as the strongest and most durable ties that older adults can maintain – their ties to their adult children. Relationships with adult children are usually thought to provide the broadest and most robust pathways of support and resource exchange in later life (Swartz, 2009). As older adults often face the loss of key sources of social support (such as a spouse), bonds with adult children often become increasingly important with age (Fingerman et al., 2013). Indeed, the availability and quality of parent-adult child relationships have been linked to a range of outcomes for aging parents, including psychological and physical well-being, as well as mortality risk (Fingerman et al. 2008; Silverstein & Bengtson, 1991; Swartz, 2009; Umberson, 1992; Ward 2008).

The stability of the parent-adult child tie is an important issue for many reasons. Growing evidence suggests that socially disadvantaged individuals have less access to valuable forms of social capital (e.g., Lin, 2000; McDonald, Lin, & Ao, 2009) – including in later life (Ajrouch, Antonucci, & Janevic, 2001). This may especially be the case for African American and less educated older adults who are less likely to marry than are whites and more educated individuals (Cherlin, 2010). Likewise, given the higher mortality rates among African Americans and socioeconomically disadvantaged individuals (Levine et al., 2001), even those who do marry are more likely to lack spousal support as they age. As intergenerational exchange is a key means of accessing a range of social resources (e.g., Lin & Wu, 2014), unstable social network ties to adult children may be especially problematic for the available resources and well-being of socially disadvantaged older adults. Understanding variation in the stability of network ties to adult children by race and SES may highlight an overlooked dimension of inequality in the aging process, and even advance our understanding of health disparities among older Americans (e.g., Adler and Stewart, 2010).

In this study, we examine whether some older adults' relationships with their adult children are particularly unstable, as evidenced by the loss or exclusion of their adult children from their core social networks over time. Using data from waves 1 and 2 of the National Social Life, Health, and Aging Project (NSHAP), we examine how two dimensions of social disadvantage – race and socioeconomic status – may relate to the stability of parent-child relationships in a population-based sample of older adults. We pay particular attention to whether any disadvantage-related variation in the stability of adult-child network ties exists net of frequency of contact among older adults and their adult child network confidants. Finally, we consider certain mechanisms through which social disadvantage may shape the loss or exclusion of adult children from social networks in later life.

Intergenerational Social Network Ties in Later Life

Despite numerous claims about the decline of the American family, parent-adult child ties continue to constitute a primary channel of practical, emotional, and instrumental support (Swartz, 2009). The increase in life expectancy in the United States, coupled with trends toward smaller nuclear families, have led to greater opportunities for intergenerational contact and support exchange across the life course (Bengtson, 2001).

One of the most consequential features of an older adult's social networking is the frequency of contact with their adult children. Indeed, frequency of contact is often used as a measure of the relative strength of older adults' core network relationships, degree of alienation from close ties, and intergenerational solidarity more generally (Ward, Deane, & Spitze 2014; Silverstein, Bengtson, & Lawton 1997). Such contact represents the necessary basis for support exchange and assistance – the "opportunity structure" for social support flow that distinctively characterizes filial bonds – as well as a general measure of intergenerational connectedness (Hank 2007; Lawton, Silverstein, & Bengtson, 1994). As demographic trends in residential mobility and family complexity make physical and emotional distance between parents and their children more likely, frequency of contact serves as a key measure of

intergenerational cohesion and potential for support exchange within the contemporary family system (Bengtson 2001; Swartz 2009).

Despite the link between frequency of contact and social support exchange, it is important to note that high contact ties are not necessarily high *quality* ties. Theory on family relationships emphasizes that aspects of intergenerational solidarity are multidimensional. Varying degrees of contact, for example, can occur alongside varying degrees of intimacy, agreement, and other dimensions (Bengtson, Giarrusso, Mabry, & Silverstein, 2002). Indeed, the coexistence of seemingly contradictory relationship characteristics (for example, a high degree of intimacy and a high degree of conflict), appropriately reflects the complexity and dynamic nature of intergenerational relationships (Bengtson et al., 2002; Luescher & Pillemer, 1998).

A key motivation of this article is the growing body of research that highlights racial and socioeconomic differences in how parent-child ties are experienced, with particular attention to family contact and social support. Contact is a pathway for support exchange to take place, a means of gaining information about one another's needs and resources, as well as a form of social support in and of itself (Kalmijn, 2016; Ward, Deane, & Spitze, 2014). African Americans tend to maintain larger, more supportive, and emotionally closer family structures (Stack, 1974), maintaining more frequent contact with kin than do whites, and providing more support to aging parents (e.g., Taylor, Chatters, Woodward, & Brown, 2013). More often than whites, African Americans tend to endorse stronger filial obligations and norms around younger adults' assistance to older adults (Burr & Mutchler 1999; Coleman, Ganong, & Rothrauff, 2006).

Similarly, lower-SES older adults expend more total effort to support adult children, despite having fewer material resources (Fingerman et al., 2015), perhaps partly because adult children constitute otherwise-scarce sources of identity, meaning, and personal reward (Edin & Kefalas, 2011). Less educated older adults also rely more on informal advice and instrumental support from their adult children in navigating the financial and legal processes that accompany life transitions such as widowhood and retirement (Ha, Carr, Utz, & Nesse, 2006). The same may be true with regard to health care decision-making, as lower levels of education are associated with poorer health literacy and weaker feelings of personal control over one's well-being (Adler & Ostrove, 1999; Mirowsky & Ross, 1998). As higher-SES individuals tend to have more financial resources to access formal care (Szinovacz & Davey, 2007), lower-SES older adults may depend more on adult children to fulfill the instrumental and practical needs that can accompany aging.

In sum, prior work underscores that for socially disadvantaged groups, the parent-adult child bond is an especially critical pathway for accessing social support, particularly those resources that may be increasingly sought after with age. Thus, we expect to find greater contact among socially disadvantaged older adults and their adult children, representing the means of support exchange, care provision, and awareness of one another's needs (Ward et al., 2014).

Social Network Instability in Later Life

While much research examines contact among parents and adult children in the context of social support, less attention has been paid to the dynamics of parent-adult child ties over time (Ward et al., 2014). It is here, as we argue below, that the notion that stronger intergenerational bonds prevail within disadvantaged groups may be questioned. Most work on parent-adult child dynamics considers age-related patterns in support exchange, proposing how specific life-course transitions for both older parents (e.g., widowhood, retirement, etc.) and their adult children (e.g., employment transitions, divorce, childbearing, etc.) impact frequency of contact and social support availability (Guiaux, Van Tilburg, & Broese Van Groenou, 2007; Shaw et al., 2007). Other research finds that intergenerational ties tend to exhibit continuity over time, with most change surrounding the increased dependency of aging parents, often due to health declines and widowhood (Hogerbrugge & Silverstein, 2015).

In addition to life-course determinants, frequency of contact is an additional relational factor that is likely related to parent-child tie stability. As a key dimension of intergenerational solidarity, more frequent contact is associated with greater affection and attachment, and is often used by scholars to infer relationship quality, strength, and continuity (e.g., Hank 2007; Kalmijn 2006, 2016; Silverstein, Bengtson, & Lawton, 1997). As some life-course theories suggest, older adults may intentionally maintain their most intimate social network ties, seeking to preserve those relationships that are highest in contact and support (Carstensen, 1992). In light of this research, more frequent contact between older adults and their adult child network members may reduce instability in parent-child relations in later life.

Social Disadvantage and Social Network Instability

Although it is apparent that socially disadvantaged individuals maintain more frequent intergenerational contact and support exchange, it is difficult to ignore the chronic social and environmental instability that these individuals experience – or the implications of this experience for the stability of their social networks. For example, lower-SES individuals are more often exposed to eviction and incarceration – processes that often force displacement and separation (Desmond, Gershenson, & Kiviat, 2015; Pettit & Western, 2004). Neighborhood-level disadvantage, too, may be associated with the erosion or lack of establishments such as community centers that serve as important loci of network development and support exchange (Sampson 2012; Small, 2006). Additionally, the stress and lack of social control often experienced by individuals living in disadvantaged neighborhoods (Boardman, Finch, Ellison, Williams, & Jackson, 2001; Diez Roux, 2003) may compromise one's capacity to maintain stable network ties over time.

While social disadvantage may be studied through a number of different lenses (e.g., race, ethnicity, income, education), we focus specifically on race and educational attainment. Much of the research on intergenerational relationships has focused on differences between whites and African Americans, as well as educational attainment as an indicator of SES. Likewise, many of the social and institutional processes thought to influence social network

stability – including parent-child ties – are disproportionately experienced by African Americans and those with little formal education. We list some of these processes below:

- African Americans are overrepresented at all points of criminal justice system processing, including prosecution, sentencing, and incarceration (Kutateladze, Andiloro, Johnson, & Spohn, 2014; Pettit & Western, 2004), contributing to the uncertainty, distrust, and stress that can tax social relationships (Goffman, 2009; Smith, 2010).

- Job turnover and unemployment – experienced more frequently by African Americans and less educated individuals (United States Department of Labor, Bureau of Labor Statistics 2018; Dawkins, Shen, & Sanchez, 2005), – can lead to changes in everyday social contacts, and need for instrumental and financial supports. Likewise, labor market disadvantage in the form of low pay and non-standard work hours (Presser, 2003) may contribute to financial need, while also making it difficult to sustain social contact with close others with dissimilar work schedules.

- Foreclosure and eviction are patterned along distinct racial lines, contributing to African Americans' experience of residential instability, and taxing core network ties with more frequent instrumental needs (Desmond & Shollenberger, 2015; Desmond & Valdez, 2013; Hall, Crowder, & Spring, 2015).

- Disruptions to family structure, including divorce, re-partnering, and single parenthood, are more common among those with less education, and can contribute to changes in core support ties, particularly among parents and children (Kaufman & Uhlenberg, 1998; Martin, 2006 and Guzzo 2014).

- African American families are more likely than white families to live in disadvantaged neighborhoods, characterized by spatially concentrated poverty, crime, and mistrust (Massey, Condran, & Denton, 1987; Ross, Mirowsky, & Pribesh, 2001). Along these lines, African Americans and people of low SES are more likely to experience dilapidated or otherwise disordered household contexts (Frumkin, 2005) – conditions that may be shaped by a lack of social network support (York Cornwell, 2016).

In light of these observations, we focus on race and educational attainment as measures of social disadvantage given a number of processes disproportionately experienced by African American and less educated older adults, and which we expect to influence network dynamics. We are careful to note that our focus on race is based on extensive sociological literature considering how African Americans have historically been less advantaged relative to whites on many of dimensions of socioeconomic status, and that race reflects a number of macro-level processes (e.g., discrimination, structural racism) that influence individuals' life chances in important ways (e.g., Ho & Elo 2013; Massey, Condran, & Denton 1987). While we cannot measure individuals' experiences with each of the aforementioned processes, we recognize that race and education are among the fundamental social-structural forces that "…bestow benefits and impose constraints upon an individual in the context of intergenerational linkages" (Lawton, Silverstein, & Bengston, 1994, p. 59). These processes

may be experienced older parents and/or their children, in either case potentially straining the stability of the parent-child tie. We therefore operationalize race and education as measures of social disadvantage much in the same way used by fundamental cause theory in relation to health disparities (Link & Phelan, 1995; Phelan & Link 2005). The set of social conditions listed above are inextricably linked to race and education, and can directly influence social network change.

The present study

An urgent question, then, is to what extent the parent-adult child bond is a stable social tie for individuals that are more likely to experience unstable social and environmental circumstances. As prior research suggests that socially disadvantaged older adults maintain greater contact and support exchange with their adult children, one might expect that the parent-adult child bond is resilient to the more general instability that plagues the networks of socially disadvantaged older adults (Cornwell, 2015; Fischer & Beresford, 2015). At the same time, many of the processes discussed above are specific to the family system, or known to strain family relationships, such as divorce and remarriage of an older adult or adult child, adult children's employment transitions, and changes in aging parents' health, which can significantly disrupt intergenerational exchanges (e.g., Hogerbrugge & Silverstein, 2015; Kaufman & Uhlenberg, 1998). The parent-adult child tie may therefore be particularly vulnerable to social-environmental influences on social network stability.

Our goal is to better understand how, if at all, racial and socioeconomic factors influence older adults' likelihood of experiencing instability in their ties with their adult children. We approach this goal in two steps. We first examine the extent to which race and education are each associated with frequency of contact with child network members. Prior research suggests that such contact is an important basis for support exchange and intergenerational solidarity, while also serving as a general means of gaining awareness of others' needs (Kalmijn, 2016; Ward et al., 2014). For socially disadvantaged older adults, circumstances in the broader social environment may create a higher demand for more frequent contact among parents and children relative to more advantaged older adults and their children.

Second, we consider whether African American and less educated older adults are more likely to experience the loss of a child network member over a five year period, while accounting for reported contact with these network members at baseline. Whereas broader environmental instability may warrant greater parent-child contact, we examine whether instability in parent-child ties is patterned by social disadvantage and, importantly, whether instability occurs in spite of how often parents are in contact with their children – a relationship quality that may be indicative of a tie's function and protective of tie dissolution, while simultaneously reflective of the same social circumstances that may tax tie stability.

Longitudinal research on social disadvantage and older adults' personal networks emphasizes that African American and less educated older adults experience more network losses due to death than white and college-educated respondents (Cornwell, 2015). Less educated older adults also retain fewer non-kin ties over time (Fischer & Beresford, 2015), while lower income individuals retain fewer network ties that provide informal social

resources (Schafer & Vargas, 2016). Much of this work suggests that circumstances associated with social disadvantage make it difficult for individuals to retain more peripheral network ties (e.g., neighbors, friends, coworkers, etc.). We add to this research by specifically considering the stability of parent-adult child social network relationships, adding to our understanding of how social inequality intersects with perhaps the broadest social resource in older adults' core support systems (Fingerman et al., 2011).

Data and Method

To address these research questions, we use data from Waves 1 and 2 of the National Social Life, Health, and Aging Project (NSHAP). The NSHAP is a nationally representative panel study of community-dwelling older adults that focuses largely on health, well-being, and social relationships in later life (Suzman, 2009). Wave 1 was conducted in 2005-2006 and included 3,005 in-home interviews with respondents ages 57-85, as well as a leave-behind questionnaire. The final response rate was 75.5%. Wave 2 was conducted in 2010-2011, and includes interviews with 75.2% (N = 2,261) of surviving and eligible Wave 1 respondents.

Social Network Assessment

As part of the in-home interviews, respondents were asked about individuals with whom they discussed important matters over the course of the year. This name generator is commonly used to elicit respondents' core confidants (i.e., "egocentric network data") who are also key sources of social support (Bailey & Marsden, 1999; Marsden 1987; c.f., Bearman & Parigi, 2004). Respondents could name up to five network members (i.e., "alters"), who were recorded in Roster A. Roster B included the respondent's partner if s/he had one that was not named in Roster A. Respondents were also asked if there was any one other person to whom they were especially close. If so, this person was added in Roster C. Respondents reported their relationship to each alter (e.g., spouse, child, friend, etc.), how often they talk to each alter, emotional closeness with each alter, and how often each alter talks with every other alter.

Our outcomes of interest are respondents' average frequency of contact with their child network alters, and whether at Wave 2 respondents did *not* name at least one child network alter who was named at Wave 1 (discussed below). Frequency of contact is a fundamental basis of social relationships (van Gaalen, Dykstra, & Komter, 2010), and older adults tend to maintain contact with more supportive network alters (Shaw et al., 2007). In the absence of more explicit measures of parent-child tie strength or support exchange, and in line with other research on this topic (Kalmijn, 2006, 2016), we use frequency of contact as the best available indicator of relationship strength and access to social support (and the necessary structure for support provision/exchange to take place). We measure frequency of contact as the average of respondents' reports of how often they talk to each child alter named at Wave 1 (1 = *less than once a year*, 8 = *every day*). The NSHAP did not restrict the definition of "talk" to in-person contact, and respondents were free to interpret "talk" as various forms of contact (i.e., phone, email, etc.).

Child alter loss

After collecting the network rosters at Wave 2, interviewers showed respondents a visual presentation of all alters from Rosters A-C for both waves, and asked respondents to confirm matches between the two rosters. For alters who were named at Wave 1 but not at Wave 2, respondents were asked to provide a reason for those losses. These responses were later coded by the NSHAP team and grouped into categories including: the alter died, the alter or respondent moved, the alter or respondent experienced health problems, there was a falling out/disagreement/conflict, the alter and respondent "drifted apart," the alter or respondent changed jobs or retired, or the tie was lost for some "other" reason. We code respondents as experiencing child alter loss if they reported at least one child as a network member at Wave 1 (as part of Rosters A or C), but do not report that same child as a network member again at Wave 2. This is our primary measure of child network loss.

Independent Variables

We use respondents' self-reported race and educational attainment as indicators of social disadvantage. Race is categorized white, African American, or other race. We classify educational attainment as less than high school, high school or equivalent, or more than high school. In addition, we control for age (divided by 10, to make the age coefficient more meaningful), marital status, whether respondents were working at Wave 1, gender and ethnicity (Latino/a versus not Latino/a). We also include a number of egocentric network measures that may be associated with social network instability. It may be more difficult to maintain close ties with a larger number of network members – those with larger networks may be more likely to lose network members between waves, all else equal. We therefore control for baseline network size (total number of alters named at Wave 1), and the number of child alters at Wave 1. Respondents with more kin-based networks may also be less likely to experience the loss of a child network alter, as children may have ties to other kin, which may facilitate a stable parent-child relationship. Proportion of kin is measured as the proportion of alters related to the respondent by blood or marriage. We control also control for respondents' average emotional closeness to child network members (1 = *not very close*, 4 = *extremely close*) as a reflection of tie intimacy or quality – an additional dimension of intergenerational solidarity that is distinct from frequency of contact, but that may also protect against tie instability. Older adults may be less likely to experience the loss of a child network tie if they report greater emotional closeness at Wave 1. Residing with a child alter may also reduce instability in these ties. We therefore also include an indicator of whether one reports living with a child alter at Wave 1 (1 = *yes*). Finally, we control for self-rated mental and physical health at Wave 1 (poor, fair, good, very good, or excellent). Respondents in better health may be more capable of maintaining ties with children and providing them with various supports, while poor or declining health may influence whether children serve as a core contact and source of social support for the respondent. Table 1 presents descriptive statistics for these variables.

Analytic Strategy

Our analyses proceeds in two stages. In the first stage, we use ordinary least squares (OLS) regression to model the relationships between race, education, and frequency of contact with

child network alters, as the outcome of interest is continuous. These analyses test whether social disadvantage is related to frequency of contact among older adults and their children. The more frequently one is in contact with network members, the greater the opportunity for these ties to serve as pathways for resource exchange, social support, information transmission, and generally monitoring one another's well-being. In the second stage, we use logistic regression to examine whether race and education explain differences in the stability of ties to adult children between waves, given that the outcome in these models is dichotomous (whether or not a tie to an adult child was lost between waves). Both sets of models proceed in a stepwise fashion, ultimately controlling for the same set of independent variables described in the prior section. Importantly, the second set of models also includes frequency of contact with child alters as a covariate, given its association with relationship strength and continuity. Any tendencies in contact with children by race and education evident in the first models may explain a relationship between social disadvantage and the loss of ties to adult children – a key phenomenon of interest in this study.

We limit our analyses to the 1,456 respondents that participated in both waves, have non-missing values on all variables included in the models, and who report at least one child as a network alter at Wave 1. Attrition is the most significant source of missing data. Of the 1,979 Wave 1 participants that report at least one child alter, 457 did not participate in Wave 2. An additional 42 respondents were excluded due to problems completing the network matching exercise or missing data on race, ethnicity, and/or self-rated health. Given our interest in racial and SES differences in maintaining parent-child ties, rather than differences in mortality, we exclude 24 respondents who only report having lost a child alter because the child died. This helps to ensure a more conservative test of the idea that other factors also combine to create less stable environments for *ongoing* social relationships.

We use a propensity score weighting scheme to account for the possibility that those respondents included in the analyses systematically differ from those excluded from our final models (Morgan and Todd 2008). We first use a logit model to determine respondents' probability of inclusion in our models, using a number of sociodemographic, network, and health-related variables that may predict exclusion from our sample on the basis of attrition or missing data. We then multiply the inverse of this probability by the NSHAP Wave 1 respondent-level weights. Using these adjusted weights attenuates the impact of selection bias, and derives model estimates that are more like estimates that would be derived had all respondents been included in the analysis. All models also use the NSHAP sample clustering and stratification to account for sample selection at Wave 1.

Results

Within the analytic sample, the number of child network members listed at Wave 1 ranged from 1 to 6. The majority of respondents included one (46.6%) or two (33.3%) children as alters. Among those that included more than one child alter, there was little variation in how frequently respondents reported having contact with each child alters, indicating that respondents were in contact with their child alters with a similar degree of regularity. Respondents generally reported having frequent contact with child network alters, averaging between one and several times a week in the sample overall. The majority (N = 951) spoke

with their child network members between everyday and several times a week, on average, while 346 reported average contact between once a week and several times a week, 106 between once every two weeks and once a week, 46 between once a month and once every two weeks, and 7 averaging less than once a month.

Despite these general patterns, frequency of contact with child network alters differed significantly by race and education. In bivariate analyses comparing African Americans and whites, white older adults reported having contact with child alters between once and several times a week, whereas African Americans reported having contact with child alters between several times a week and every day ($F = 37.89$, $p < .001$). Individuals with less than a high school education had contact with child alters between several times a week and every day, whereas older adults with more than a high school education reported talking with child network alters between once and several times a week ($F = 21.34$, $p < .001$). As shown in Models 1 and 2 of Table 2, African Americans and older adults of other races reported significantly more frequency contact with child network alters than did whites at Wave 1 ($p < .001$ and $p < .05$, respectively). The least educated group of older adults reported significantly more frequent contact with child alters than did members of the most educated group ($p < .001$), as did those with a high school degree or equivalent ($p < .05$). Consistent with this pattern, those with a high school degree or equivalent reported less frequent contact with child alters less than did those with less than a high school degree (adjusted Wald $F = 5.42$, $p < .05$).

Model 3 of Table 2 suggests that these patterns were generally robust to the inclusion of relevant controls. African Americans and those with less than a high school education or equivalent reported significantly more frequent contact with child network alters than did whites and those in the most educated group ($p < .001$ and $p < .01$, respectively). In this model, there was no significant difference in average contact with child network alters among those with less than a high school education and those with a high school degree or equivalent.

Being Latino/a and female were each associated with more frequent contact with child confidants ($p < .05$ and $p < .001$, respectively). Living with a child network member and greater emotional closeness with child network members were also strongly positively associated with more frequent contact with child confidants ($p < .001$ for both variables). Although overall network size was not statistically significant, having a greater number of children in one's personal network was negatively associated with average contact with child network members ($p < .05$).

Loss of Ties of Adult Children

We now turn to our analysis of the loss of ties to adult children. Of the NSHAP respondents who reported at least one adult child in their baseline network, 35.4% lost a child from their network between waves. It is worth taking a moment to consider the nature of these losses. Respondents were given the opportunity to provide a brief (usually one sentence) explanation for why a Wave 1 alter was not listed again at Wave 2. Although many responses were too ambiguous to interpret due to brevity or lack of specificity, 23.9% (the modal explanation) attributed the loss of a child alter to either their own or their child's residential

change (e.g., *"He lives in [distant town/city]"*). Approximately 21.4% of respondents who lost a child alter between waves described themselves as still being in touch with their children, but not as confidants (e.g., *"[We're] still in touch"*). Other respondents (17.5%) explicitly cited life course events such as family *("[He] got married and had a family")*, and employment *("…she works all the time, unlike in 2005"*) as reasons for the network loss. A few older adults cited their own or their child's health problems (4.1%) or conflict (3.3%) (e.g., *"We don't get along"*) as circumstances explaining the fact that they did not list a child confidant in their Wave 2 network roster.

The data suggest that social disadvantage is associated with the probability of experiencing a loss such as those described above. Approximately 35% of whites experienced the loss of a tie to an adult child between waves, compared to roughly 37% of African Americans. Among respondents with more than a high school education or a high school degree, 34% and 33% of older adults, respectively, ceased to report a child alter at Wave 2 that they included in their network at Wave 1, compared to 42% of older adults with less than a high school education. Multivariate analyses that accounted for both social disadvantage and contact with child alters suggest that race and education were significantly associated with the loss of ties to adult children between waves. Table 3 presents the of the multivariate logistic regression models using marginal effects that hold all other covariates at their mean values, avoiding issues in comparing log-odds and odds ratios across models, and making the results more substantively interpretable (Mood 2009).

As shown in Model 1, when all other covariates are held at their mean values, the probability that African Americans experienced the loss of a child alter was 11% greater than that for whites ($p < .05$). Put differently, the odds of reporting a child alter at Wave 1 but not again at Wave 2 were 58.7% higher for African American older adults than they were for whites [odds ratio (OR) = 1.587, 95% confidence interval (CI) (1.099, 2.292)]. This relationship emerged net of average frequency of contact with child confidants. For each increase in average contact with child alters, the probability of experiencing the loss of child alter decreased by 11.6% (OR = .606, 95% CI (.518, .709), $p < .001$). In Model 2, the probability of losing a child alter was 14.2% greater for those with less than a high school education than it was for those with more than a high school education ($p < .01$). The odds of experiencing such a loss were 81.5% higher (OR = 1.815, 95% CI (1.258, 2.618) for the least educated group than for the most educated group. Those with a high school degree or equivalent were also significantly less likely to experience the loss of a child alter than were those with less than a high school education (adjusted Wald $F = 13.03$, $p < .001$), though there was no significant difference between those with a high school degree and those with more than this level of education. These differences emerged net of contact with child alters, while the probability of experiencing the loss of a child a decreased by 11.7% ($p < .001$) with each increase in average contact with child alters (OR = .603, 95% CI (.515, .705)).

Finally, Model 3 considers the likelihood of the loss of a child alter when accounting for social disadvantage and contact with child alters, and net of other controls. Overall, the results were consistent with those in Models 1 and 2. For African Americans, the probability of losing a child alter was 13% greater than it is for whites, holding all other covariates at their mean values ($p < .01$). The odds of African Americans experiencing this type of

network change were 73.4% higher (OR = 1.734, 95% CI (1.167, 2.578)) than their white counterparts. For the least educated respondents, the probability of experiencing this kind of network change is 17% greater than the most educated group ($p < .01$). Respondents with less than a high school education were also significantly more likely to report losing a child network alter than those with a high school degree or equivalent (adjusted Wald $F = 9.47$, $p < .01$). Still, the negative relationship between average contact with child alters and their loss between waves was robust. For each increase in average contact, the probability of losing this kind of tie decreased by 9.7% ($p < .001$).

These results suggest that socially disadvantaged older adults were significantly more likely to report losing child alters, despite having greater contact with them at baseline. To test whether these findings are specific to child alters, we used the covariates included in Table 3 to predict the loss of any network member *other than a child* between Waves 1 and 2 (supplementary table A1). We further limited the sample for this analysis to respondents that also included a non-child alter at Wave 1 (and therefore have the potential to experience the loss of a non-child tie between waves). This results in the exclusion of 59 respondents (N = 1,397).

African Americans were no more likely to report the loss of a non-child alter than were whites, and there were no statistically significant differences by education. Those of other races, however, had a 9.5% greater probability of reporting the loss of a non-child network alter than did whites older adults ($p < .05$). Frequency of contact with these alters was strongly negatively associated with the likelihood of losing them as network confidants, consistent with our child-specific results ($p < .001$). These findings also suggest that in the case of non-child network members, confidant loss may have been more related to marital status and physical health than to social disadvantage. Figure 1 shows the predicted probability of child versus non-child alter loss by race and education. The likelihood of experiencing the loss of any non-child alter was notably higher than the likelihood of losing a child alter across all racial and educational groups, holding all other covariates at their means. Only in the case of child alter loss, however, was the likelihood of experiencing such a loss significantly higher for socially disadvantaged older adults.

In supplemental analyses, we also considered whether our results were robust to the exclusion of child alters that were co-residing with respondents at wave 1, as their inclusion may lessen the need for supports from other non-co-residing children. These results were consistent with those presented here (supplementary table A2), and suggest that our findings do not depend on co-residency with adult children.

Finally, while our focus is on the link between social disadvantage and the loss of ties to children, we considered models that examine the *addition* of child alters between waves, given the possibility that parent-adult child support may be "activated" at different times (Silverstein, Gans, & Yang, 2006), and that differences in the likelihood of loss may reflect racial and educational differences in the availability of other children to serve as network confidants. These results did not differ by race or by education (supplementary table A3).

Why is Disadvantage Related to Child Confidant Loss?

The above analyses show that socially disadvantaged older adults are more likely to cease including adult children as confidants over time. While we cannot systematically account for the myriad of life-course events that may impact parent-adult child ties using the NSHAP, we can leverage some additional data to shed light the circumstances behind these losses. A supplemental multivariate analysis using the same controls in Table 3 (supplementary table A4) indicates that African Americans are more than twice as likely than whites to report that their child alter loss was due to residential change – that is, either the respondent or the child changing residence or otherwise relocating between waves (OR = 2.103, 95% CI (1.094, 4.044), $p < .05$).

Among those who reported having a child confidant at Wave 1, the predicted probability among African-Americans that they would report losing their child confidant due to residential mobility is .101, which is about twice as large as the .051 probability that is estimated for white older adults (see supplemental figure A1). A similar, non-significant trend is seen by SES (OR = 1.524, 95% CI (.863, 2.692)). The predicted probability of attributing a lost child confidant tie to residential change among those who have less than a high school education is .084, compared to .057 among those who had more than a high school education. African Americans were more likely than whites to report that they were still in touch with a child alter "lost" between waves (OR = 2.337, 95% CI [1.267, 4.311], $p < .01$), with similar, yet nonsignificant trends.

Discussion and Conclusion

Motivated by recent evidence that the greater social-environmental instability that is faced by socially disadvantaged groups translates into instability within their personal social networks (Ajrouch, Antonucci, & Janevic, 2001; Cornwell, 2015; Fischer & Beresford, 2015; Shaw et al., 2007), we examined the link between social disadvantage and the stability of what are often regarded as older adults' strongest and most durable ties – their ties to their adult children. Our analyses suggest that African Americans and people with little formal education are less likely than others to retain their children as confidants within their core social networks over the course of a five-year period. In short, it appears that those older adults who perhaps most need the support and other resources that are often provided by adult children may also be the most at risk of losing those ties, or not being able to consistently draw on them.

In light of growing evidence that socially disadvantaged individuals have less access to valuable forms of social capital (see Lin, 2000; McDonald, Lin, & Ao, 2009) – including in later life (Ajrouch, Antonucci, & Janevic, 2001) – the idea that the intergenerational ties that these individuals do have are less stable – despite demonstrating greater potential for support exchange at Wave 1 – suggests an especially precarious situation for aging African Americans and less educated individuals. The health and well-being of aging African Americans and less educated individuals may be especially vulnerable given the instability of this important source of social resources and supports. Future policy work may further examine how the loss or weakening of parent-child bonds represents a consequential form of social isolation for older adults in these populations.

We note that our analyses reveal a somewhat paradoxical characteristic of these intergenerational relationships. Because high contact ties tend to indicate relationship strength and frequent resource and support exchange, it is not entirely surprising that socially disadvantaged groups report more frequent contact with their children than do more socially advantaged individuals. More surprising is the finding that these high contact ties also appear to be less stable. Scholars have suggested that the instability associated with the social environments of lower-SES individuals may foster the quick formation of strong, supportive, yet short-lived ties (e.g., Desmond, 2012). To date, however, the concept of "disposable ties" has pertained largely to non-kin relationships. Our results suggest that high contact but unstable sources of social support may also extend to the family context.

This study provides some evidence that frequent relocation and other life course factors, such as adult children progressing through various life transitions of their own (e.g., employment changes, having children, etc.) may explain the loss or weakening of ties to adult children. Indeed, extensive research documents how problems in the lives of adult children (e.g., unemployment, divorce) can cause considerable stress for parents (e.g., Fingerman et al. 2012; Greenfield & Marks 2006). As lower socioeconomic position is associated with greater parental stress (Lantz et al. 2005), the parent-child tie may be particularly susceptible to instability in light of the stressors and strains that such problematic circumstances in the lives of adult children can evoke for parents. Those of lower SES may be unable to provide resources to help support adult children in mitigating related financial difficulties, and/or be faced with other stressful events (e.g., their own unemployment or financial hardships) that may ultimately strain the strength of the parent-child bond. Another possibility is that because the parent-child tie is an especially important social support (e.g., Bengtson, 2001; Fingerman et al., 2013), the demands of parent-child relationships may be higher among socially disadvantaged groups. When these demands are extensive or are not adequately met, individuals may turn to other network ties and/or withdraw from the parent-adult child relationship.

This analysis has several limitations. First, the NSHAP does not collect information on life-course events of respondents' child alters, or comprehensive contextual details about older adults' network changes. We are therefore unable to attribute child network loss due to particular circumstances such as a child's divorce, job loss, parenthood, etc., which prior research shows to influence parent-adult child ties (e.g., Kaufman & Uhlenberg, 1998). Likewise, these network losses may be due to other social and institutional processes known to disproportionately impact socially disadvantaged families (e.g., unemployment, family reconfiguration), but that were not explicitly captured by the NSHAP. Second, because the network rosters include non-kin, some close ties to children may be under-reported by respondents, especially those with numerous strong ties to non-kin. Third, seemingly important changes in older adults' ties to children may seem too specific to a particular dimension of intergenerational ties to be broadly relevant, or may appear an artifact of the survey module. A definitive defense requires additional data, but for now we highlight some additional evidence of instability in disadvantaged respondents' close family relationships.

NSHAP asked respondents how much they could rely on family members for support. Within our analytic sample, 18.9% of African Americans reported at Wave 1 that they could

"often" rely on family for support, but then reported at Wave 2 that they could do so only "some of the time," "rarely," or "never." This is greater than the 12.8% level observed among non-African American respondents ($\chi^2 = 4.044$, $p < .05$). Similarly, 16.8% of parents who had less than a high school education reported at Wave 1 that they could "often" rely on their family for support but then only "some of the time," "rarely," or "never" at Wave 2 – approximately 34% greater than the 12.5% level observed among those with at least a high school education ($\chi^2 = 2.240$, $p = .141$). These results are marginal but consistent with the broader finding that disadvantaged groups are more likely to experience instability in their supportive family ties, though additional study is needed to determine whether this is specific to ties to adult children.

Other supplemental models control for the number of children that respondents report having at Wave 1 (capping this number at six or more), regardless of whether they are included as network alters, given that family size may impact our focal relationship. Despite the loss of some cases due to nonresponse, these analyses yield results that are generally consistent with those presented in the main paper. African Americans were still more likely to experience child network loss than were whites (OR = 1.465, 95% CI (.971, 2.210), $p = .068$), and those with less than a high school education were more likely to experience child network loss than were those more than a high school degree (OR = 2.036, 95% CI (1.269, 3.266), $p < .01$). As the significance of race falls slightly to marginal significance with this covariate, future research may consider how the supports or demands of having more children may influence the association between race and instability in the parent-adult child bond.

A related concern is that the patterns of instability may be artifacts of questionnaire design. It is possible, for example, that African Americans were unable to include some of their Wave 1 child alters again at Wave 2 because their Wave 2 rosters were already full of other alters. Supplemental analyses do not support this explanation. Disadvantaged older adults who had lost adult child alter between Waves 1 and 2 actually had, on average, unused slots in their confidant rosters at Wave 2 – which they presumably could have used to include any close adult children (a total of 71.3% of African Americans had unused slots in Roster A, compared to 59.3% of whites, and 73.6% of those with less than a high school education compared to 55.2% of those with more than a high school degree). Given that disadvantaged groups were more likely to report being "still in touch" with their Wave 1 child alters, we speculate that the "losses" that we examined do in fact reflect an actual weakening of intergenerational ties, which is more attributable to social-environmental instability than to survey design issues.

Finally, because to date the NSHAP includes only two waves of data, we cannot consider whether these network losses are relatively permanent, or whether children transition in and out of older adults' social networks over time. Future research using three or more waves of data, combined with qualitative work on the lives of adult children, may explore the possibility that adult children re-appear in their parents' social networks once the demands and obligations of their own lives lessen – that is, whether adult children's own progression through the life course may influence the racial and educational differences that we observe. More broadly, additional data is necessary to unpack exactly what aspects of social

disadvantage are driving this type of network change, including the actual degree to which individuals are exposed to the various circumstances that we consider to be potential contributors to the loss of ties to adult children.

Regardless, our findings provide evidence of a heretofore-underexplored, and somewhat paradoxical role played by children in the dynamics of older adults' close social networks. Frequency of contact may appropriately reflect the availability of important social supports and other forms of social exchange that sustain intergenerational bonds over time. Nevertheless, social disadvantage– net of contact – warrants special attention in considering how consistently older adults have access to the range of benefits linked to parent-child ties. Social and institutional forces disproportionately experienced by African Americans and less educated individuals may influence this type of network change, above and beyond what might be predicted by frequency of contact or social support. These findings point to an important avenue for ongoing research on intergenerational dynamics, beyond the point-in-time characteristics of parent-adult child ties. Prior research underscores the role of parent-adult relationship quality in influencing older adults' physical and mental well-being (e.g., Fingerman et al. 2008; Ward 2008; Umberson, 1992). Future research may consider the consequences of this type of network loss, including the degree to which this loss leads to greater vulnerability among socially disadvantaged older adults. In particular, future studies may consider whether the inconsistency of this tie as a stable source of support may explain some of the poorer health outcomes that are evident among African Americans and lower-SES individuals, especially in later life (e.g., Adler & Stewart, 2010; Pampel, Krueger, & Denney, 2010). While extensive literature emphasizes the significance of intergenerational bonds in later life, instability in ties to adult children could be an important contributor to disparities in older adults' well-being.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

References

Adler NE, Ostrove JM. Socioeconomic status and health: What we know and what we don't. Annals of the New York Academy of Sciences. 1999; 896:3–15.https://doi.org/10.1111/j.1749-6632.1999.tb08101.x [PubMed: 10681884]

Adler NE, Stewart J. Health disparities across the lifespan: Meaning, methods, and mechanisms. Annals of the New York Academy of Sciences. 2010; 1186:5–23.http://doi.org/10.1111/j.1749-6632.2009.05337.x [PubMed: 20201865]

Ashida S, Heaney CA. Differential associations of social support and social connectedness with structural features of social networks and the health status of older adults. Journal of Aging and Health. 2008; 20(7):872–893.https://doi.org/10.1177/0898264308324626 [PubMed: 18815414]

Ajrouch KJ, Antonucci TC, Janevic MR. Social networks among blacks and whites: The interaction between race and age. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2001; 56(2):S112–S118.http://doi.org/10.1093/geronb/56.2.S112

Bailey S, Marsden PV. Interpretation and interview context: Examining the General Social Survey name generator using cognitive methods. Social Networks. 1999; 21(3):287–309.http://doi.org/10.1016/S0378-8733(99)00013-1

Bearman P, Parigi P. Cloning headless frogs and other important matters: Conversation topics and network structure. Social Forces. 2004; 83(2):535–557.http://doi.org/10.1353/sof.2005.0001

Bengtson V, Giarrusso R, Mabry JB, Silverstein M. Solidarity, conflict, and ambivalence: Complementary or competing perspectives on intergenerational relationships? Journal of Marriage and Family. 2002; 64(3):568–576.http://doi.org/10.1111/j.1741-3737.2002.00568.x

Bengtson VL. Beyond the nuclear family: The increasing importance of multigenerational bonds. Journal of Marriage and Family. 2001; 63(1):1–16.http://doi.org/10.1111/j.1741-3737.2001.00001.x

Boardman JD, Finch BK, Ellison CG, Williams DR, Jackson JS. Neighborhood disadvantage, stress, and drug use among adults. Journal of Health and Social Behavior. 2001; 42(2):151–165. DOI: 10.2307/3090175 [PubMed: 11467250]

Burr JA, Mutchler JE. Race and ethnic variation in norms of filial responsibility among older persons. Journal of Marriate and Family. 1999; 61:674–687. DOI: 10.2307/353569

Carstensen LL. Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. Psychology and Aging. 1992; 7(3):331–8.http://dx.doi.org/10.1037/0882-7974.7.3.331 [PubMed: 1388852]

Cherlin AJ. Demographic trends in the United States: A review of research in the 2000s. Journal of Marriage and Family. 2010; 72(3):403–419.http://doi.org/10.1111/j.1741-3737.2010.00710.x [PubMed: 22399825]

Coleman M, Ganong LH, Rothrauff TC. Racial and Ethnic Similarities and Differences in Beliefs about Intergenerational Assistance to Older Adults After Divorce and Remarriage. Family Relations. 2006; 55(5):576–587.

Cornwell B, Schumm LP, Laumann EO, Kim J, Kim YJ. Assessment of social network change in a national longitudinal survey. The Journals of Gerontology: Series B. 2014; 69(Suppl 2):S75–S82.

Cornwell B. Social disadvantage and network turnover. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2015; 70(1):132–42.http://doi.org/10.1093/geronb/gbu078

Dawkins CJ, Shen Q, Sanchez TW. Race, space, and unemployment duration. Journal of Urban Economics. 2005; 57(1):91–113.https://doi.org/10.1016/j.jue.2005.02.001

Desmond M, Gershenson C, Kiviat B. Forced relocation and residential instability among urban renters. Social Service Review. 2015; 89(2):227–262.http://doi.org/10.1086/681091

Desmond M, Shollenberger T. Forced displacement from rental housing: Prevalence and neighborhood consequences. Demography. 2015; 52:1751–1772. DOI: 10.1007/s13524-015-0419-9 [PubMed: 26286885]

Desmond M. Disosable Ties and the Urban Poor. American Journal of Sociology. 2012; 117(5):1295–1335.

Desmond M, Valdez N. Unpolicing the urban poor: Consequences of third-party policing for inner-city women. American Sociological Review. 2013; 78(1):117–141.http://doi.org/10.1177/0003122412470829

Diez Roux AV. Residential environments and cardiovascular risk. Journal of Urban Health : Bulletin of the New York Academy of Medicine. 2003; 80(4):569–89.http://doi.org/10.1093/jurban/jtg065 [PubMed: 14709706]

Edin K, Kefalas M. Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage. Berkeley, CA: University of California Press; 2011.

Fingerman KL, Pitzer L, Lefkowitz ES, Birditt KS, Mroczek D. Ambivalent relationship qualities between adults and their parents: Implications for the well-being of both parties. The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences. 2008; 63:362–371.

Fingerman KL, Cheng YP, Birditt K, Zarit S. Only as happy as the least happy child: Multiple grown children's problems and successes and middle-aged parents' well-being. The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences. 2012; 67:184–193.

Fingerman KL, Kim K, Davis EM, Furstenberg FF, Birditt KS, Zarit SH. "I'll give you the world": Socioeconomic differences in parental support of adult children. Journal of Marriage and Family. 2015; 77(4):844–865.http://doi.org/10.1111/jomf.12204 [PubMed: 26339102]

Fingerman KL, Sechrist J, Birditt K. Changing views on intergenerational ties. Gerontology. 2013; 59(1):64–70.http://doi.org/10.1159/000342211 [PubMed: 23037718]

Fingerman KL, VanderDrift LE, Dotterer AM, Birditt KS, Zarit SH. Support to aging parents and grown children in Black and White families. The Gerontologist. 2011; 51(4):441–52.http://doi.org/10.1093/geront/gnq114 [PubMed: 21199862]

Fingerman KL, Pitzer L, Lefkowitz ES, Birditt KS, Mroczek D. Ambivalent relationship qualities between adults and their parents: Implications for the well-being of both parties. The Journals of Gerontology: Series B. 2008; 63(6):P362–P371.https://doi.org/10.1093/geronb/63.6.P362

Fischer CS, Beresford L. Changes in support networks in late middle age: The extension of gender and educational differences. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2015; 70(1):123–31.http://doi.org/10.1093/geronb/gbu057

Greenfield EA, Marks NF. Linked lives: Adult children's problems and their parents' psychological and relational well-being. Journal of Marriage and Family. 2006; 68(2):442–454. [PubMed: 17710218]

Frumkin H. Guest editorial: Health, equity, and the built environment. Environmental Health Perspectives. 2005; 113(5):A290–1. [PubMed: 15866747]

Goffman A. On the run: Wanted men in a Philadelphia ghetto. American Sociological Review. 2009; 74(3):339–357.http://doi.org/10.1177/000312240907400301

Guiaux M, van Tilburg T, Broese van Groenou M. Changes in contact and support exchange in personal networks after widowhood. Personal Relationships. 2007; 14(3):457–473.http://doi.org/10.1111/j.1475-6811.2007.00165.x

Guzzo KB. New partners, more kids: Multiple-partner fertility in the United States. ANNALS of the American Academy of Political and Social Science. 2014; 654(1):66–86. [PubMed: 25284822]

Ha JH, Carr D, Utz RL, Nesse R. Older adults' perceptions of intergenerational support after widowhood: How do men and women differ? Journal of Family Issues. 2006; 27(1):3–30.http://doi.org/10.1177/0192513X05277810

Hall M, Crowder K, Spring A. Neighborhood foreclosures, racial/ethnic transitions, and residential segregation. American Sociological Review. 2015; 80(3):526–549.http://doi.org/10.1177/0003122415581334 [PubMed: 26120142]

Hank K. Proximity and contacts between older parents and their children: A European comparison. Journal of Marriage and Family. 2007; 69(1):157–173.https://doi.org/10.1111/j.1741-3737.2006.00351.x

Ho JY, Elo IT. The contribution of smoking to black-white differences in U.S. mortality. Demography. 2013; 50(2):545–568.https://doi.org/10.1007/s13524-012-0159-z [PubMed: 23086667]

Hogerbrugge MJA, Silverstein MD. Transitions in relationships with older parents: From middle to later years. The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences. 2015; 70(3):481–95.http://doi.org/10.1093/geronb/gbu069

Kalmijn M. Children's divorce and parent–child contact: A within-family analysis of older European parents. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2016; 71(2):332–343.http://doi.org/10.1093/geronb/gbu141

Kalmijn M. Educational inequality and family relationships: Influences on contact and proximity. European Sociological Review. 2006; 22(1):1–16.https://doi.org/10.1093/esr/jci036

Kaufman G, Uhlenberg P. Effects of life course transitions on the quality of relationships between adult children and their parents. Journal of Marriage and Family. 1998; 60(4):924–938. DOI: 10.2307/353635

Kutateladze BL, Andiloro NR, Johnson BD, Spohn CC. Cumulative disadvantage: Examining racial and ethnic disparity in prosecution and sentencing. Criminology. 2014; 52(3):514–551.http://doi.org/10.1111/1745-9125.12047

Lantz PM, House JS, Mero RP, Williams DR. Stress, Life Events, and Socioeconomic Disparities in Health: Results from the Americans' Changing Lives Study. Journal of Health and Social Behavior. 2005; 46(3):274–288. [PubMed: 16259149]

Link BG, Phelan J. Social conditions as fundamental causes of disease. Journal of Health and Social Behavior. 1995:80–94. (Extra Issue). [PubMed: 7560851]

Lawton L, Silverstein M, Bengtson VL. Affection, social contact, and geographic distance between adult children and their parents. Journal of Marriage and Family. 1994; 56(1):57–68. DOI: 10.2307/352701

Levine RS, Foster JE, Fullilove RE, Fullilove MT, Briggs NC, Hull PC, Hennekens CH. Black-white inequalities in mortality and life expectancy, 1933-1999: Implications for Healthy People 2010. Public Health Reports. 2001; 116:474–483.https://doi.org/10.1093/phr/116.5.474 [PubMed: 12042611]

Lin N. Inequality in social capital. Contemporary Sociology. 2000; 29(6):785–795. DOI: 10.2307/2654086

Lin IF, Wu HS. Intergenerational exchange and expected support among the young-old. Journal of Marriage and the Family. 2014; 76(2):261–271.http://doi.org/10.1111/jomf.12093 [PubMed: 26640296]

Luescher K, Pillemer K. Intergenerational ambivalence: A new approach to the study of parent-child relations in later life. Journal of Marriage and Family. 1998; 60(2):413–425. DOI: 10.2307/353858

Marsden PV. Core discussion networks of Americans. American Sociological Review. 1987. http://doi.org/10.2307/2095397

Massey DS, Condran GA, Denton NA. The Effect of Residential Segregation on Black Social and Economic Well-Being. Social Forces. 1987; 66(1):29–56.http://doi.org/10.1093/sf/66.1.29

Martin SP. Trends in marital dissolution by women's education in the United States. Demographic Research. 2006; 15:537–560.

McDonald S, Lin N, Ao D. Networks of opportunity: Gender, race, and job leads. Social Problems. 2009; 56(3):385–402.https://doi.org/10.1525/sp.2009.56.3.385

Mirowsky J, Ross CE. Education, personal control, lifestyle and health: A human capital hypothesis. Research on Aging. 1998; 20(4):415–449.http://doi.org/10.1177/0164027598204003

Morgan SL, Todd JJ. A diagnostic routine for the detection of consequential heterogeneity of causal effects. Sociological Methodology. 2008; 38:231–281.

Mood C. Logistic regression: Why we cannot do what we think we can do, and what we can do about it. European Sociological Review. 2009; 26(1):67–82.https://doi.org/10.1093/esr/jcp006

Pampel FC, Krueger PM, Denney JT. Socioeconomic disparities in health behaviors. Annual Review of Sociology. 2010; 36:349–370.http://doi.org/10.1146/annurev.soc.012809.102529

Pettit B, Western B. Mass imprisonment and the life course: Race and class inequality in U.S. incarceration. American Sociological Review. 2004; 69(2):151–169.http://doi.org/10.1177/000312240406900201

Phelan JC, Link BG. Controlling disease and creating disparities: A fundamental cause perspective. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2005; 60(Special Issue 2):S27–S33.http://doi.org/10.1093/geronb/60.Special_Issue_2.S27

Presser HB. Race-ethnic and gender differences in nonstandard work shifts. Work and Occupations. 2003; 30(4):412–439.http://doi.org/10.1177/0730888403256055

Ross CE, Mirowsky J, Pribesh S. Powerlessness and the amplification of threat: Neighborhood disadvantage, disorder, and mistrust. American Sociological Review. 2001; 66(4):568–591. DOI: 10.2307/3088923

Sampson RJ. Great American City: Chicago and the Enduring Neighborhood Effect. Chicago, IL: University of Chicago Press; 2012.

Schafer MH, Vargas N. The dynamics of social support inequality: Maintenance gaps by socioeconomic status and race? Social Forces. 2016; 94(4):1795–1822.http://doi.org/10.1093/sf/sow024

Schwartz E, Litwin H. Social network changes among older Europeans: The role of gender. European Journal of Ageing. 2018. http://doi.org/10.1007/s10433-017-0454-z

Shaw BA, Krause N, Liang J, Bennett J. Tracking changes in social relations throughout late life. The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences. 2007; 62(2):S90–9.https://doi.org/10.1093/geronb/62.2.S90

Silverstein M, Bengtson VL, Lawton L. Intergenerational solidarity and the structure of adult child–parent relationships in American families. American Journal of Sociology. 1997; 103(2):429–60.http://doi.org/10.1086/231213

Silverstein MD, Bengtson VL. Do close parent-child relations reduce the mortality risk of older parents? Journal of Health and Social Behavior. 1991; 32(4):382–95. DOI: 10.2307/2137105 [PubMed: 1765628]

Silverstein MD, Bengtson VL. Does intergenerational social support influence the psychological well-being of older parents? The contingencies of declining health and widowhood. Social Science & Medicine. 1994; 38(7):943–57.https://doi.org/10.1016/0277-9536(94)90427-8 [PubMed: 8202743]

Silverstein M, Gans D, Yang FM. Intergenerational support to aging parents: The role of norms and needs. Journal of Family Issues. 2006; 27(8):1068–1084.http://doi.org/10.1177/0192513X06288120

Small ML. Neighborhood institutions as resource brokers: Childcare centers, interorganizational ties, and resource access among the poor. Social Problems. 2006; 53(2):274–292.http://doi.org/10.1525/sp.2006.53.2.274

Smith SS. Race and trust. Annual Review of Sociology. 2010; 36(1):453–475.http://doi.org/10.1146/annurev.soc.012809.102526

Stack CB. All Our Kin: Strategies for Survival in a Black Community. New York: Harper and Row; 1974.

Steptoe A, Shankar A, Demakakos P, Wardle J. Social isolation, loneliness, and all-cause mortality in older men and women. Proceedings of the National Academy of Sciences. 2013; 110(15):5797–5801.https://doi.org/10.1073/pnas.1219686110

Suzman R. The National Social Life, Health, and Aging Project: An introduction. Journal of Gerontology. 2009; 64B(Suppl 1):i5–i11.https://doi.org/10.1093/geronb/gbp078

Swartz TT. Intergenerational family relations in adulthood: Patterns, variations, and implications in the contemporary United States. Annual Review of Sociology. 2009; 35(1):191–212.http://doi.org/10.1146/annurev.soc.34.040507.134615

Szinovacz ME, Davey A. Changes in adult child caregiver networks. The Gerontologist. 2007; 47(3):280–295.http://doi.org/10.1093/geront/47.3.280 [PubMed: 17565093]

Taylor RJ, Chatters LM, Woodward AT, Brown E. Racial and ethnic differences in extended family, friendship, fictive kin and congregational informal support networks. Family Relations. 2013; 62(4):609–624.http://doi.org/10.1111/fare.12030 [PubMed: 25089067]

Umberson D. Relationships between adult children and their parents: Psychological consequences for both generations. Journal of Marriage and Family. 1992; 54(3):664–674. DOI: 10.2307/353252

Umberson D, Olson JS, Crosnoe R, Liu H, Pudrovska T, Donnelly R. Death of family members as an overlooked source of racial disadvantage in the United States. Proceedings of the National Academy of Sciences. 2017; 114(5):915–920.https://doi.org/10.1073/pnas.1605599114

van Gaalen RI, Dykstra PA, Komter AE. Where is the exit? Intergenerational ambivalence and relationship quality in high contact ties. Journal of Aging Studies. 2010; 24(2):105–114.http://doi.org/10.1016/j.jaging.2008.10.006

Ward R. Multiple parent-adult child relations and well-being in middle and later life. The Journals of Gerontology: Series B. 2008; 63(4):S239–S247.https://doi.org/10.1093/geronb/63.4.S239

Ward R, Deane G, Spitze G. Life-course changes and parent-adult child contact. Research on Aging. 2014; 36(5):568–602.http://doi.org/10.1177/0164027513510325 [PubMed: 25651511]

York Cornwell E. Household disorder, network ties, and social support in later life. Journal of Marriage and Family. 2016; 78(4):871–889.http://doi.org/10.1111/jomf.12299 [PubMed: 27524834]

York Cornwell E, Waite LJ. Social disconnectedness, perceived isolation, and health among older adults. Journal of Health and Social Behavior. 2009; 50(1):31–48.https://doi.org/10.1177/002214650905000103 [PubMed: 19413133]

Figure 1.
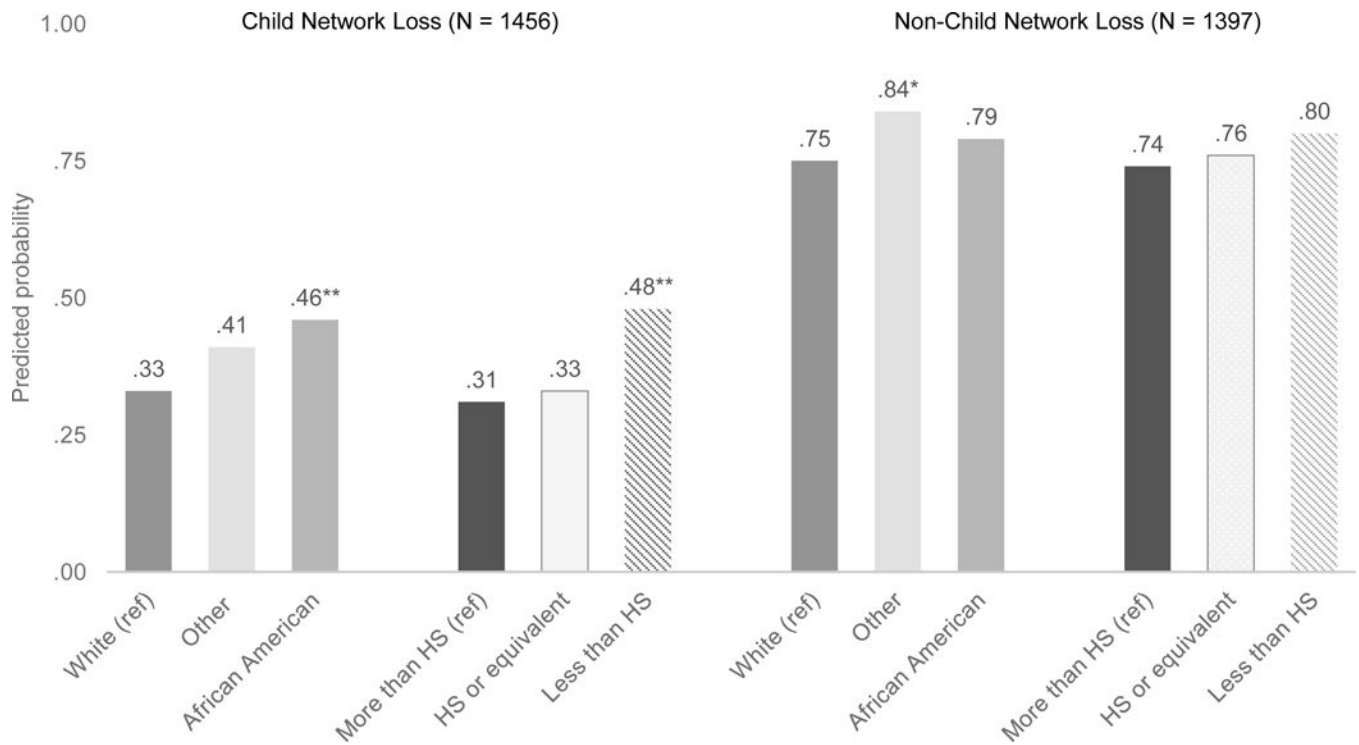Predicted Probabilities of the Loss of Child and Non-Child Network Alters Between Waves, By Race and Education.

Note: All predicted values are based on the full logistic regression models presented in Table 3 and supplemental analyses using the same covariates to predict non-child alter loss, holding all other covariates constant at their mean values.

*p < .05; **p < .01; (Two-sided tests).

Table 1

Descriptions, Weighted Means and Standard Deviations of Key Variables ($N = 1,456$).[a]

	Proportion or Weighted Mean	Standard Deviation
Age at W1 (divided by 10)	6.804	.750
Female	.565	.496
Race		
White	.783	.412
African American	.148	.355
Other race	.069	.253
Hispanic	.106	.310
Education		
Less than HS	.199	.399
HS or equivalent	.260	.439
More than HS	.541	.498
Marital Status W1		
Married	.657	.475
Separated/divorced	.122	.327
Widowed	.212	.409
Never married	.010	.100
Currently working W1	.341	.474
Self-rated mental health		
Poor	.009	094
Fair	.082	.274
Good	.260	.438
Very Good	.390	.488
Excellent	.259	.438
Self-rated physical health		
Poor	.045	207
Fair	.173	.378
Good	.307	.461
Very Good	.332	.471
Excellent	.143	.350
Network size W1	4.610	1.418
Number of child network alters W1 (Range: 1 – 6)	1.816	.941
Proportion of kin in network W1	.748	.229
Lives with a child network alter W1 (1 = yes)	.127	.333
Loss of a child network alter (reasons other than death)	.354	.478
Average frequency of contact with child network alter W1 (1 = "Less than once a year" and 8 = "Everyday")	6.767	1.071
Average emotional closeness with child network alters W1 (1 = "Not very close" and 4 = "Extremely close")	3.287	.581

[a]Means are weighted using NSHAP Wave 1 respondent-level weights (adjusted for attrition and selection at Wave 2). Estimates are calculated for all respondents who have non-missing data on key variables in the final model, and who report at least one child network alter at Wave 1. Proportions are unweighted.

Table 2

Coefficients from OLS Models Predicting Average Frequency of Contact with Child Network Alters at Wave 1 ($N = 1,456$).[a]

Predictor	Model 1	Model 2	Model 3
Race (ref = White)			
African American	.575*** (.093)		.328*** (.082)
Other race	.375* (.164)		.217 (.126)
Education (ref = More than high school)			
Less than high school		.445*** (.096)	.283** (.086)
High school or equivalent		.176* (.078)	.172** (.055)
Hispanic			.236* (.109)
Age (divided by 10)			−.030 (.046)
Female			.461*** (.063)
Marital Status W1 (ref = Married)			
Separated/divorced			−.232 (.124)
Widowed			−.067 (.079)
Never married			.275 (.234)
Currently working			.023 (.082)
Network size W1			−.026 (.026)
Number of child network alters W1			−.093* (.035)
Proportion of kin in network W1			.185 (.181)
Lives with a child network alter W1			.749*** (.061)
Average emotional closeness with child network alters W1			.549*** (.056)
Constant	6.695*** (.049)	6.634*** (.063)	4.823*** (.493)
R^2	.029	.025	.273
F(df)	19.17*** (2, 49)	11.76*** (2, 49)	40.91*** (24, 27)

*
$p<.05$;

**
$p<.01$;

***
$p<.001$ (two-sided tests). Standard errors in parentheses.

[a]Estimates are weighted using NSHAP Wave 1 respondent level weights (adjusted for attrition and selection at Wave 2). All models are survey-adjusted and include controls for Wave 1 self-rated physical and mental health, which are not significant and not shown due to space constraints. Applies only to respondents with at least one child network alter at Wave 1.

Table 3

Marginal Effects from Logit Models Predicting whether Respondents Lost a Child Alter (for reasons other than death) between Waves 1 and 2 ($N = 1,456$).[a]

Predictor	Model 1	Model 2	Model 3
Race (ref = White)			
African American	.110[*] (.045)		.130[**] (.048)
Other race	.163 (.086)		.084 (.088)
Education (ref = More than high school)			
Less than high school		.142[**] (.044)	.170[**] (.054)
High school or equivalent		.004 (.034)	.017 (.034)
Hispanic			.013 (.069)
Average frequency of contact with child network alters W1	−.116[***] (.019)	−.117[***] (.019)	−.097[***] (.019)
Age (divided by 10)			−.044 (.024)
Female			−.011 (.028)
Marital Status W1 (ref = Married)			
Separated/divorced			.052 (.058)
Widowed			−.076 (.043)
Never married			−.241[*] (.110)
Currently working			.035 (.036)
Network size W1			.036 (.018)
Number of child network alters W1			.119[***] (.025)
Lives with a child network alter W1			−.024 (.050)
Proportion of kin in network W1			.048 (.101)
Average emotional closeness with child network alters W1			−.097[**] (.031)
$F(df)$	13.50[***] (3, 48)	14.05[***] (3, 48)	4.28[***] (25, 26)

[*] $p<.05$;

[**] $p<.01$;

[***] $p<.001$ (two-sided tests). Standard errors in parentheses.

[a]Estimates are weighted using NSHAP Wave 1 respondent level weights (adjusted for attrition and selection at Wave 2). All models are survey-adjusted and include controls for Wave 1 self-rated physical and mental health, which are not significant and not shown due to space constraints. Applies only to respondents with at least one child network alter at Wave 1.

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