

INTERGENERATIONAL SUPPORT AND PARENTAL HEALTH IN LATER LIFE

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Abstract submitted to the 2012 meeting of the Population Association of America. The authors are listed in alphabetical order.

ABSTRACT

With increases in life expectancy in the U.S. and around the world, healthy aging is important for individual, family, and societal wellbeing. A component of wellbeing that may be pertinent to health at older ages is intergenerational relations. Older adults are givers and recipients of financial and instrumental exchanges with their children. These exchanges may have positive and negative implications for the health of older parents. For example, older adults may accrue mental-health benefits from providing financial and instrumental support to their adult children, but stress may also be associated with such responsibilities. At the same time, older adults often rely on their adult children when they experience health problems, and it is important to quantify the economic and instrumental support that older parents receive from their children upon experiencing a decline in health. This study examines longitudinally the role of intergenerational assistance for the health of older adults in the U.S. using a rich nationally representative longitudinal study of older adults, the Health and Retirement Survey (HRS). Our objective is to answer two research questions. First, to what extent does downward financial and instrumental support from older parents to their children influence the mental, cognitive, and subjective health of older parents? Second, to what extent do declines in older parents' health influence financial and instrumental support from their children. To address these questions, we use information on intergenerational support from the recently released RAND Family Data File, version A, which contains cleaned and harmonized HRS variables pertinent to the respondents' family from the 1998, 2000, and 2002 HRS waves. Socio-demographic and health data come from the RAND HRS File, version K for the same years. Our analysis is based on approximately 15,000 respondents aged 50 and over in 1998 who reported that they have children and are contained in the Family Data File. Preliminary analyses reveal considerable within-person variability across time for our main measures of intergenerational support and health. About one quarter of respondents reported changes in their provision of childcare and financial support

across two waves. About one quarter also reported changes in their children's performance of chores and errands for them, and about half reported changes to their self-rated health, with one quarter reporting improvements across two waves. More than 40% of respondents showed changes (improvement or decline) in cognitive functioning and mental health over two waves. With sufficient within-parent variation over time in intergenerational support and health, we will estimate parental fixed-effects models to estimate (1) the effects of changes in downward financial and instrumental support on changes in parental mental, cognitive, and self-rated health, and (2) and the effects of changes in parental health on changes in upward financial and instrumental support from children. Our models will be adjusted for time fixed effects and other time-varying covariates that may confound the relationships of interest. Finally, we will compare the fit of these models with those based on alternative estimation strategies, such as random-effects. Our findings will provide insights about the health effects of parental support to adult children and the responsiveness of children to parental health declines.

INTRODUCTION

With increases in life expectancy at older ages in the U.S. and abroad, the number of older adults is growing worldwide, and with declining fertility over the past decades, the older population is growing as a proportion of the total population. These trends highlight the importance of healthy aging not only for individual but also for family and societal wellbeing.

In most settings, including the U.S., older adults are net givers of intergenerational assistance.^{1 2 3} Prior research has shown that there may be benefits to mental health and cognition from providing assistance to others, and these benefits may translate into overall functioning. In multiple settings, providing support to family, especially to children, has been associated with positive psychological wellbeing of the older adult giver, with even greater benefits from relationships of mutual assistance.^{4 5} At the same time, older adults may experience stress from obligations to support their children and grandchildren, and this stress may adversely affect their overall health. This study examines health and changes in health associated with downward transfers from older adults, exploring both the potential for positive and negative relationships.

Although older parents are net givers of intergenerational support, they also expect children to assist with a health problem. This paper will quantify the economic and instrumental support that older parents receive from their children after a decline in their health. Finally, studies have found benefits for mental wellbeing from mutual exchange between parents and children,^{6 7} with such exchanges benefitting more than parents' unilateral giving.⁸

This study examines the relationship of intergenerational assistance with the health of older adults in the U.S. We do so using the Health and Retirement Survey, a rich, nationally representative longitudinal study of older adults. Specifically, we address the following questions:

1. Does the support that older parents provide their adult children affect parents' mental, cognitive, and self-rated health?

2. Do declines in parental mental, cognitive, or self-rated health motivate adult children to respond with support?

This study provides a more complete examination of the reciprocal influences of intergenerational support and the health of older parents using a large nationally representative longitudinal dataset. While many studies begin with the assumption that older adults rely on their children for support, we build on current knowledge about directions of support and examine the positive and negative ways in which intergenerational support is associated with health at older ages. Despite of the prominence of intergenerational transfers behaviors, most datasets of older adults have limited measures of intergenerational transfers. Among the datasets that do have such measures, the majority are cross-sectional. Using the HRS, we exploit a large panel dataset that permits us to use fixed effects models to examine change over time while addressing unobserved heterogeneity.

BACKGROUND

Intergenerational relations revolve around exchanges of material, instrumental, and emotional support across the life course, with parents being sources of support at most stages but also recipients at other stages.^{9 10 11} Having children and having contact with them has predicted fewer depressive symptoms among older adults.¹² Older adults are extensively involved in exchanges with their children, and, for health, the nature of the exchange matters; for example, contingent exchanges appear to be more positive for older parents' health than are non-contingent exchanges.¹³ At the same time, older adults have shown extensive concern about not burdening their children with care for them or with worries about their health problems.¹⁴

Support from older adults to their children

In the U.S., intergenerational relations have reportedly centered around the needs of children as opposed to their parents.^{15 16} Most evidence shows that older persons live independently and are more likely to give than to receive financial transfers.¹⁷ In fact, some researchers argue that, at the

aggregate level, net transfers over a lifetime *must* be downward, since a group in which parents benefit at the expense of their offspring would be at an evolutionary disadvantage.^{18 19}

Support from adult children to older adults

Still, there is evidence, including from the U.S., that expectations for material, instrumental, or emotional old-age support influence decisions to bear and rear children.²⁰ It is unclear, however, to what extent these expectations are met.²¹ Older parents around the world rely most often on their adult children for financial support and care,²² and adult children provide increased contact and even co-residence when parents experience losses, such as widowhood.²³ According to Rendall and Bahchieva, one third of older adults in the U.S. would be living in poverty without co-residential support from relatives, and such support is especially important for disadvantaged individuals, including Blacks and people with less than 12 years of schooling. They point out that, although discussions about transfers often focus on financial support, older individuals often need household labor to implement their consumption power.²⁴ For example, while older persons may be financially able to purchase food and supplies, disability may prevent them from cooking or making such purchases, and the market price for these activities may be too high.

Self-rated health and cognitive functioning at older ages

Self-rated health predicts mortality,^{25 26 27 28} and as such, many researchers consider self-rated health to be a comprehensive measure, capturing subclinical aspects of personal health.²⁹ Self-rated health also may reflect broader perceptions of well being, including aspects of personal lifestyle, social support, and economic status.³⁰ The most salient predictors of self-rated health may vary across age and age cohorts, with health behaviors prevailing in young adulthood and physical or mental health conditions prevailing in later life.^{31 32}

Dementias and neuropsychiatric disorders account for a growing share of the global disease burden.³³ Despite the strong association between increasing age and cognitive decline, its onset and

pace varies across age cohorts and settings.³⁴ Gerontologists use the term ‘reserve’ to explain variation in age-related levels and trajectories of cognitive decline.³⁵ ‘Reserve’ captures the idea that certain aspects of brain structure and function can delay the clinical effects of neuropathology.³⁶ In research on ageing, the strength of social ties positively predicts cognitive functioning and mental health.^{37 38}

Thus, a small body of research suggests that intergenerational support is important for the mental, cognitive, and perceived health of older adults. Yet, much of this evidence is based on cross-sectional data.⁸ Our study, thus, fills an important empirical gap by leveraging longitudinal data from the HRS on intergenerational support and the health of older parents.

METHOD

Sample

We use data from the Health and Retirement Study (HRS). The HRS is a national panel survey of individuals over age 50 and their spouses. It is sponsored by the National Institute of Aging and conducted by the University of Michigan. The HRS includes nationally representative samples of birth cohorts who entered the study over the 1990s and 2000s. Data were collected approximately every two years for each birth cohort. To obtain information on intergenerational support, we use the recently released RAND Family Data File version A,³⁹ which contains a set of cleaned and harmonized HRS variables pertinent to the respondents' family. This file contains data from the 1998, 2000, and 2002 HRS waves. We also obtain socio-demographic and health data from the RAND HRS File version K.⁴⁰ Our analysis is based on approximately 15,000 respondents aged 50 and over in 1998 who reported that they have children and are contained in the Family Data File.

Measures

Parental health is captured with three broad indicators that we hypothesize to be associated with intergenerational support: a) self-rated health, b) cognitive functioning, and c) overall mental health. Self-rated health is measured using the standard five-point scale (excellent = 5, very good = 4,

good = 3, fair = 2, poor = 1). We use a summary score of cognitive functioning that ranges from 0 to 35 and that HRS investigators have produced. The score for cognitive functioning is based on a set of questions and tasks ascertaining word recall ability and mental status. Mental health is measured by the Center for Epidemiologic Studies Depression (CESD) scale, which ranges from 0 to 8.

Intergenerational support is captured as both downward (parent-to-children) and upward (children-to-parent) monetary and non-monetary forms of support. Downward support includes whether the respondent provided any childcare to children or grandchildren (totaling 100 hours or more) since the prior wave and whether they provided financial support totaling \$500 or more since the prior wave (including the number of times financial support was given and total dollar amount given). Upward forms of support include whether children helped the respondent or their spouse with chores and errands and whether they provided financial support (including frequency and amount). Various specifications (e.g., linear, dichotomous) of all outcomes will be assessed for appropriate fit in multivariate models.

A range of *covariates* also will be considered in our models to capture time-varying socio-economic predictors of changes in parental health (the outcome for RQ1) and changes in upward monetary and non-monetary support (the outcome for RQ2). These measures may include but are not limited to changes in income or household wealth, changes in the survival status of a spouse, or changes in other social networks.

Analysis

Descriptives: First, we will examine univariate distributions of all outcomes, explanatory variables, and covariates within survey waves to assess their completeness and distributions. We then will explore within-parent trends in all outcomes, explanatory variables, and covariates to ensure sufficient change over time to permit time-series analyses. Finally, we will examine bivariate plots of all outcomes and explanatory variables to explore potential non-linearities in their associations.

Multivariate analysis: Preliminary multivariate models for each outcome will be estimated using linear regression with parent fixed effects. In general, fixed-effects models explore the relationship between an explanatory variable and an outcome variable within an entity, in this case an older parent. Each older parent is assumed to have unique, time-invariant attributes that may influence the explanatory and outcome variables, confounding their estimated relationship. Fixed-effects models remove these effects of unobserved time-invariant attributes so the “net influence” of the explanatory variable can be assessed. Using analyses for Research Question 1 as an example, the general equation for the parent fixed-effects model is:

$$Y_{it} = \beta_1 X_{it} + \alpha_i + u_{it} \quad (1)$$

where Y_{it} is the dependent variable (such as self-rated health of the older parent) in parent i at time t , X_{it} denotes the explanatory variable of interest (such as downward intergenerational support in the prior two years) for parent i at time t , β_1 denotes the coefficient for that explanatory variable, α_i ($i = 1 \dots n$) is the unknown intercept for each older parent (n parent-specific intercepts), and u_{it} is the error term. To control for unexpected time-variant effects or special events that may affect the outcome of interest, we will estimate three other models that adjust our base model reflected in equation (1) for: (2) time fixed-effects (or survey wave), (3) time-variant parental socioeconomic and other health conditions that may predict our main health outcomes, and (4) both time fixed-effects and time-variant parental socioeconomic and health conditions, as follows:

$$Y_{it} = \beta_1 X_{it} + \beta_T T_t + \alpha_i + u_{it} \quad (2)$$

$$Y_{it} = \beta_1 X_{it} + \beta_P P_{it} + \alpha_i + u_{it} \quad (3)$$

$$Y_{it} = \beta_1 X_{it} + \beta_T T_t + \beta_P P_{it} + \alpha_i + u_{it} \quad (4)$$

where T_t is time as binary design variable and $t-1$ time periods entered into the model and P_{it} denotes a vector of parental socioeconomic and health conditions for parent i at time t .

To explore variation in the relationship between X_{it} and Y_{it} , equations (1) – (4) will be

estimated separately for subsamples of parents stratified by compositional variables (e.g., gender, age). If the estimated coefficients for the explanatory variables (e.g., intergenerational support, Aim 1) do not differ systematically across strata for most outcomes, then the results for the full sample of older parents will be emphasized, and where appropriate, the results from the stratified models will be reported. In all models, robust standard errors will be estimated accounting for clustering at the parent-level, and all analyses will use HRS-supplied sampling weights.

Diagnostics. F-tests for the joint significance of the design variables for time will be conducted to assess whether their inclusion is warranted. Variance inflation factors (VIFs) also will be estimated, and we will use the standard cutoff of 10 to assess whether multicollinearity is influencing the regression estimates^{41 42 43 44} and suggesting that each covariate and explanatory variable is more than a linear combination of the others.

Alternative estimation strategies. Notably, the fixed-effects model assumes that time-invariant attributes are unique to the entity under analysis (e.g., a given parent), so the parent's error term and the constant capturing the parent's attributes should not be correlated with those for other parents. If the error terms across parents are correlated, then fixed-effects modeling is not suitable, and the relationship may need to be modeled using random effects. To explore this possibility, we will estimate random-effects models following the same sequential model-fitting strategy as that depicted in equations (1) – (4), and we will estimate the relative fits of fixed-effects and random-effects models using the Hausman test (Hausman, 1978). A rejection of the null hypothesis would lead one to conclude that the random-effects models are preferable to the fixed-effect models. The results from the random-effects and fixed-effects models will be reported.

Preliminary Results

Preliminary analyses reveal considerable within-person variability across time for our main measures of intergenerational support and health. For example, approximately one-quarter of

respondents reported changes in whether they provided childcare across two waves. A similar proportion reported changes in their provision of financial support across two waves. With respect to upward transfers, about one quarter reported changes in whether their children performed chores/errands for them. Approximately half of respondents reported changes to their self-rated health, with approximately one quarter of the sample reporting improvements across two waves. Similarly, a large proportion (over 40%) of respondents showed changes (improvement or decline) in cognitive functioning and mental health over two waves.

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