Elder's Marital Transition and Change in Living Arrangement:
Intergenerational Coresidence or Nursing Home?

By

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Population aging and fertility decline are closely related demographic phenomena. The decrease in the younger population and prolonged life expectancy means elder's later-life wellbeing has become an essential concern of U.S. society. Before a more comprehensive eldercare service mechanism is established, adult children of the elderly will have to shoulder most of the eldercare responsibilities. However, if adult children are constrained from providing support to their parents, or if the elders prefer not to receive assistance from their children, what are the alternatives for elders to secure their quality of life? To prepare for the challenges presented by aging baby boomers, it is important to examine how family composition influences older adult's receipt of support.

Intergenerational exchange involves three dimensions: transfer of money, time, and intergenerational coresidence. These elements are not mutually exclusive but often complement each other. This project attempts to focus on the aspect of intergenerational coresidence. Coresidence of aging parents and adult children is complex in the way that household resources constantly flow between parents and children rather than solely benefiting either party. Because the allocation of household resources is intrinsically endogenous with physical proximity, it is methodologically exigent to quantify the amount of time and money exchanged between coresident generations. In some households, living with an adult child may be an indication that the parent has a high level of care-giving need, although the parent may or may not provide financial resources to the child in return. In other scenarios, adult children gain more from the coresidence practice by receiving monetary and child-care assistance from their elders. To be brief, depending on the ability, need, and motivation of the adult child and the parent, various patterns of support will exist in intergenerational coresidence households. The goal of this

proposal is not to disentangle the complexities of resource flow within coresidence households. Rather, it investigates the circumstance in which intergenerational coresidence occurs.

I hypothesize that elder's marital transition has an impact on intergenerational coresidence. Change in marital status, especially entering widowhood, is a major life course event experienced by the older population. It plays a decisive role in elder's health and economic conditions, and influences living arrangement decisions. Other life course events, including elder's work and health status, will be taken into account in the statistical model. The 1998 to 2006 Health and Retirement Study are utilized for the proposed analysis.

In addition to intergenerational coresidence, measurement of transition to a nursing home will be employed as another dependent variable. As an alternative choice of living arrangement, moving into a nursing home has a stronger implication in elder's care-giving need and social support. Consequently, a parallel analysis of nursing home and intergenerational coresidence transition will provide deeper insight into the broader picture of elder's later-life wellbeing.

Marital transition and elder's need

A significant body of literature demonstrates that marriage has a protective effect on the health of both spouses, although the benefits are generally greater for men than for women (Grov, 1973; Hu and Goldman, 1990). Married couples have a lower risk of dying, as well as better physical and mental health than their unmarried counterparts (Hughes and Waite, 2002; Lillard and Waite, 1995; Wyke and Ford, 1992). Wu and Hart (2002) argued that transition to divorce is associated with a decline in self-reported health and functioning among men, whereas an increase in depression among both men and women. Likewise, transition to widowhood is associated with an increased risk of mortality, morbidity, and psychological distress (DeGarmo and Kitson, 1996; Elwert, and Christakis, 2008a, 2008b; Wade and Pevalin, 2004). Thierry

(2000) contends that mortality rises sharply in the first year after one loses a spouse. Levels of depression and stress are much higher around the time of a spouse's death (Barrett, 2000).

In terms of economic wellbeing, marriage creates an opportunity for financial resource pooling and enhancing personal economic security (Hahn, 1993; Lillard and Waite, 1995; Umberson, 1987; Zick and Smith, 1991). Numerous studies indicate marital dissolution causes a greater chance for women to experience poverty than men (Holden and Smock, 1991; Smock, 1993), and the cumulative disadvantage associated with economic hardship has a prolonged effect on women's wellbeing at older ages (Vartanian and McNamara, 2002).

The relationship between social support and marriage transition also deserves attention. Married individuals receive emotional and daily-care assistance from their spouses. Especially for men, divorce at early ages may result in limited contact with their biological children, diminishing the likelihood to receive intergenerational support in the long-run. The social support network established or renewed after the death of a spouse is a crucial factor influencing the mortality of the bereaved (Subramanian, Elwert, and Christakis, 2008). Widowed men who participated in social networks maintained by their wives have more sources of informal care compared to others.

Hypotheses

Building upon the literature, the overarching hypothesis for this project is that marital transition creates different level of needs, and elders will adjust their living arrangements accordingly. There may be a gender differential in this regard because the marriage protection effects are different for men and women.

Data

The Health and Retirement Study (HRS) is a nationally representative panel survey studying older adults' health and economic wellbeing in their later-lives. The first wave of the HRS contains information on 7607 respondents aged 51-61 in 1992, and their spouses, regardless of their age, were also interviewed (n=5045). The follow up surveys were conducted every two years thereafter. In 1998 and 2004, new interview cases were added into the original sample. The most recent publicly available data was collected in 2006.

For this project, data from the 1998 to 2006 surveys are used to ensure a sufficient observation period. The sample is confined to the population age 65 and older in year 1998, with at least one living child because elders without children are not in the "risk set" of having intergenerational coresidence. Furthermore, elders who coreside with their children or lived in a nursing home in 1998 are excluded. The 1998 data originally contains information for 21384 respondents. With the above restrictions and excluding missing cases, the finalized 1998 sample consists of 6140 observations, and 3774 of these elders stayed in the sample until 2006.

Measurements

There are two dependent variables, *whether intergenerational coresidence occurred*, and *whether the elder moved into a nursing home*, at any point in time between 1998 and 2006. The explanatory variable, *transition of marital status* from 1998 to 2006, is created as a time-varying covariate to reflect elder's change in marital status over time. The *gender* variable is coded as women=1 and men=0 to test for the marriage protection effect on men and women.

Several measurements are introduced in the models for the purpose of statistical control. Variables of *elder's demographic characteristics*, *home ownership*, and *family support* are derived from the 1998 data and fixed in the baseline throughout the defined time interval. To be

specific, "race" is coded as three dichotomized variables, "White", "Black", and "Other", and the "Other" category is omitted from the regression models as reference. "Years of education" is a continuous variable ranging from 0 to 17. "Age" and "age-squared" are continuous variables to capture the linear and non-linear impacts of aging process. "Home ownership" is a dichotomized variable indicating whether the elder had a home in 1998. "Number of household members", "number of living children", "number of living siblings", and "whether has weekly contact with any non-coresidence adult child" (yes=1, 0 otherwise), are employed to capture the support from family members.

To better delineate the variations associated with economic status transitions, variables of *whether the elder works for pay* and *total household assets* (natural logged to normalize the distributions) are constructed to vary with time from 1998 to 2006. S*elf-rated health* (poor=1, 0 otherwise), *number of ADL difficulties[1], number of IADL difficulties[2],* and *Center for Epidemiological Study Depression scores (CESD scores)*, are adopted to measure elder's changes over time in general physical health, functioning, and mental health, respectively. Since decision to purchase long-term care insurance may be contingent upon the financial resources and care-giving needs, the variable *whether the elder has long-term care insurance* is also created as time-varying covariate.

Analytical strategy

In addition to the descriptive analysis, this study uses discrete time hazard models to examine the timing of the first occurrence of intergenerational coresidence and nursing home living. Separate models will be estimated for these two dependent measurements, and sub-sample analysis based on elder's gender will be performed. Analyses of combination transition

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[1] Out of 5 ADL tasks: bathing, dressing, eating, getting in and out of bed, and walking across a room.
[2] Out of 5 IADL tasks: making phone calls, managing money, taking medications, shopping for groceries, and preparing hot meals.

episodes, for example, from coresidence and then to nursing home, and repeated events like multiple entries to the nursing home, are not considered in this paper. The trajectory of elder's living arrangements will be observed until the end of the study interval (from1998 to 2006), or until the elder withdraws from the survey for any reason before the end of the study period.

Descriptive statistics for year 1998 and expected findings

Table 1 presents the weighted descriptive statistics from the baseline analysis, by elder's gender. Men are more likely to be married than women (80.61% and 51.01%, respectively). Since women have longer years of life expectancy than men, it is not surprising that a greater proportion of women are widowed (41.57%). The gender differential in marital status could be an indication that male elders may receive immediate support from their spouses, whereas female elders may rely on a broader kin or friendship network as sources of later-life support. This hypothesis will be further examined in the discrete hazard models.

In 1998, the mean age of the sample elders is 74.22; about 81% owned a home. Compared to men, women have a slightly higher percentage maintaining weekly contact with non-coresident adult children.

The descriptive statistics for economic assessment suggest that elderly men are more financially secure than women. In 1998, 22.75% men were working for pay, whereas only 12.40% women were in the labor force. The disparity in household assets is also substantial.

Results on gender differences in health show a pattern consistent with the scientific literature. A higher percentage of women rated their health status as poor (10.30% and 8.84% for men, respectively). Likewise, women report having more ADL and IADL difficulties and being more depressed than their male counterparts. More male elders have long-term care insurance than women, however (13.41% and 11.17%, respectively).

Overall, the descriptive statistics tell us that elderly women may have higher needs for support than men because they are more likely to experience marital dissolution, have limited economic resources, and have health problems. Based on these preliminary findings, the next step of this study is to model how these needs affect elderly men and women's transitions in living arrangements. It is expected that marital dissolution will hasten the change in living arrangement, especially for women. Elders with more living children, siblings, and household members will have a lower rate to transition into a nursing home because of the availability of social support.

[Insert Table 1 Here]

Table 1: Descriptive Statistics for Year 1998 (Baseline)

Variable	Men (n=2558)	Women (n=3582)	Total (N=6140)
Explanatory variable:			
Women	--	--	58.34%
Married	80.61%	51.01%	63.34%
Divorced/Separated	6.41%	6.95%	6.73%
Widowed	12.71%	41.57%	29.54%
Never married	0.27%	0.47%	0.39%
Control variable:			
Demographic characteristics			
Race			
White	89.01%	87.99%	88.42%
African American	9.03%	9.77%	9.46%
Other	1.96%	2.24%	2.12%
Years of education	12.34 (3.53)	11.82 (3.06)	11.99 (3.27)
Age	73.90 (6.47)	74.46 (6.80)	74.22 (6.67)
Home ownership and support			
Home ownership	84.64%	78.53%	81.07%
Number of household members	1.87 (0.49)	1.60 (0.63)	1.71 (0.59)
Number of living children	3.35 (2.02)	3.14 (2.00)	3.23 (2.01)
Has weekly contact with any non-coresidence adult child	20.48%	22.62%	21.73%
Number of living siblings	2.07 (2.03)	2.08 (2.05)	2.07 (2.04)
Economic status			
Work for pay	22.75%	12.40%	16.71%
Household assets	379884.34 (627176)	287342.81 (712107)	325896.76 (679499)
Health and insurance			
Self-rated health status, poor	8.84%	10.30%	9.69%
Number of ADL difficulties	0.23 (0.71)	0.35 (0.88)	0.30 (0.82)
Number of IADL difficulties	0.18 (0.62)	0.26 (0.73)	0.23 (0.69)
Depression—CESD score	1.30 (1.68)	1.76 (1.93)	1.57 (1.85)
Has long-term care insurance	13.41%	11.17%	12.10%

Note: Descriptive statistics for year 2000, 2002, 2004, and 2006 will be provided in the final manuscript.

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