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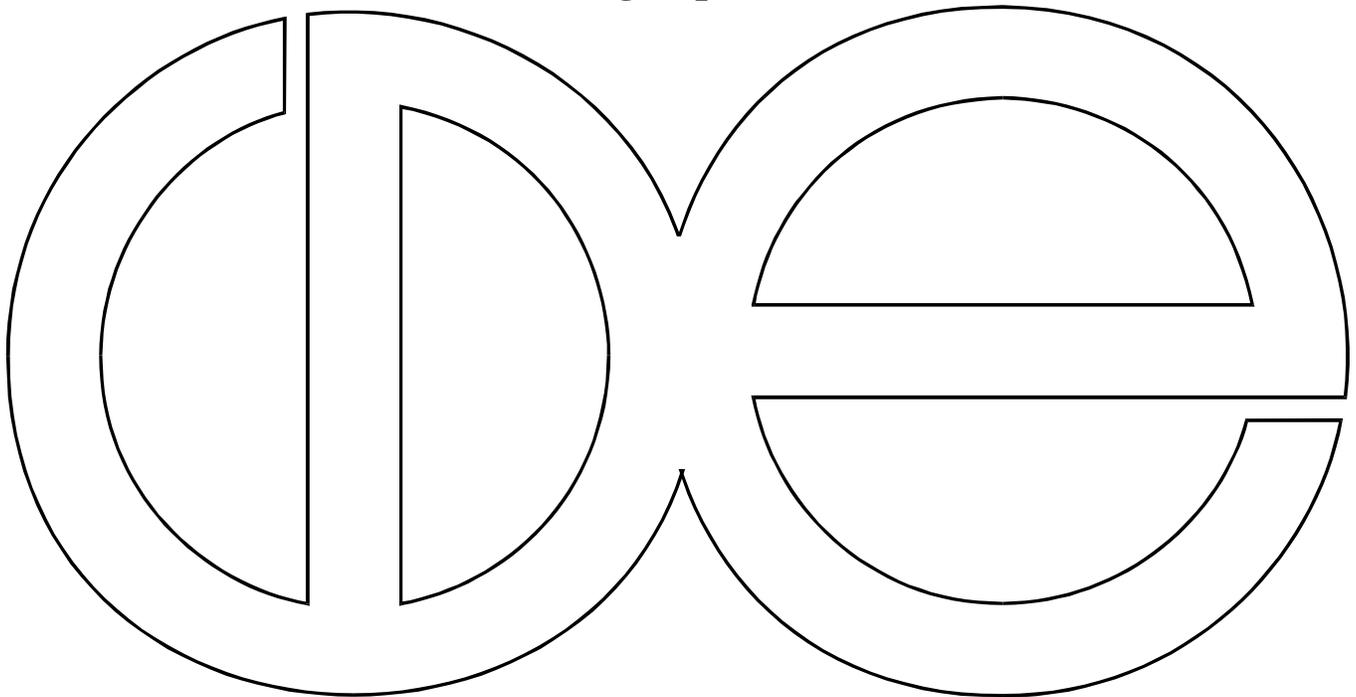
**The Effects of Transitions in Filial Caregiving  
on Mental and Physical Health:  
A Prospective U.S. National Study**

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RUNNING HEAD: Filial caregiving

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## ABSTRACT

### **The Effects of Transitions in Filial Caregiving on Mental and Physical Health: A Prospective U.S. National Study**

**Purpose:** This study examined the effects of transitioning into the role of filial caregiver, continuation in filial caregiver role over a period of at least five years, and exiting the role of filial caregiving due to parental death on mental and physical health. Further, it evaluated the moderation of caregiving effects by gender, relationship quality, filial obligation, race-ethnicity, education, income, employment status, marital status, and parental status.

**Design and Methods:** Data from adults aged 25-65 in 1987-88 and followed up longitudinally in 1992-94 (National Survey of Families and Households) was analyzed (N=1,476). Outcomes included depression, hostility, global happiness, self-esteem, personal mastery, psychological wellness, and self-assessed global health. Multivariate regression models were estimated.

**Results:** Results suggested that the transition to filial caregiving at a relatively high level of involvement was associated with more depression for men. Continuous care was associated with more hostility, a greater decline in happiness, and a greater decline in self-assessed global health among men. Adult children ending parent care due to death reported mental and physical health similar to noncaregiving adult children. Gender differences suggested men may experience more of mental and physical health risk due to caregiving than women. Relationship quality, filial obligation, social status characteristics, and other role commitments influence the effects of entering into filial caregiving, often in different ways for men and women.

**Discussion:** Filial care in the U.S. population is not consistently associated with compromised mental and physical health. Gender, relationship quality, filial attitudes, and multiple social context factors moderate the effects of entering into filial care and should be examined further in future research.

**The Effects of Transitions in Filial Caregiving on Mental and Physical Health:  
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Assuming the role of caregiver for a frail or disabled parent is becoming an increasingly probable occurrence for both women and men (Brody, 1990; Stone, Cafferata, & Sangl, 1987; Marks, 1996). Using data from a large national sample of American adults responding to the National Survey of Families and Households in 1987, Marks (1996) found that about one in ten American men and women ages 35-64 reported either living with a disabled parent or providing care for a disabled parent out-of-the-household during the previous twelve months. A more recent analysis of longitudinal reports from this same sample of people indicated that more than one in five of these same midlife adults had provided care to a disabled parent across a period of approximately five years (Marks & Lambert, 1997). Even if filial care is not yet statistically “normative” (Brody, 1985) at any given point in time for midlife adults, it certainly no longer can be considered an exceptional life course event.

Providing care to disabled elderly parents has been linked to considerable strain, burden, psychological distress, and sometimes poorer health (e.g., Brody, 1990; Horowitz, 1985; George & Gwyther, 1986; Hoyert & Seltzer, 1992; Schulz, Visintainer, & Williamson, 1990; Schulz & Williamson, 1991; Stephens & Townsend, 1997; Young & Kahana, 1989). Overall, most studies suggest that women providing parent care experience more burden and distress than men (see Montgomery 1992; Yee & Schulz, 2000, for reviews); however, studies of gender differences in caregiving have often yielded inconsistent results. A number of other moderators of the effects of filial caregiving have been suggested and to some extent examined--e.g., race-ethnicity, socioeconomic status, marital status, relationship quality, attitudes toward filial responsibility, and other social role commitments. However, a systematic examination of all of these moderators across a national sample of caregivers has not been previously undertaken.

The transition into caregiving has been the least frequently studied phase of the caregiving career to date, since, optimally, it requires a prospective research design. The primary aim of this study was to contribute to a population and life course role-identity perspective on caregiving by using longitudinal U.S. national data to examine the differential effects of transitioning into a filial caregiving role, continuing over time in a filial caregiving role, and transitioning out of a filial caregiving role on multiple dimensions of psychological dysfunction, psychological well-being, and health. Its second aim was to systematically examine gender differences in these effects. Finally, it aimed to examine several possible psychosocial moderators of the effects of transitioning into a filial caregiving role.

## **BACKGROUND**

### *A Life Course Role-Identity Theoretical Perspective on Caregiving*

This study was guided by a life course role-identity perspective on caregiving. This theoretical framework orients us to consider the caregiving role as a life course role that one is likely to enter and exit one or more times during adulthood (Moen, Robison, & Fields, 1994; Moen, Robison, & Dempster-McClain, 1995; Sutor & Pillemer, 1990). The life course perspective draws considerable attention to how family members' lives are consequentially "linked" across time, how previous history with a role partner might influence current experience with a role partner, how social context influences the experience and consequences of a role-identity, and how life transitions into and out of major social roles impact human development (Bengston & Allen, 1993; Elder, 1992, 1998; George, 1993).

One way to conceptualize life transitions into and out of a particular role is to consider how transitions cumulatively form a developmental trajectory or "career." In recent years, Leonard Pearlin and his colleagues have applied this insight to innovate theory in life course caregiving, urging a more temporally sensitive and differentiated approach to understanding the distinct periods of a "caregiving career" (Aneshensel et al., 1995; Pearlin, 1992; Pearlin &

Aneshensel, 1994). According to the Pearlin model, the prototypical caregiving career consists of several "transitions" and periods in a state--e.g., role acquisition (the start of care after illness onset), role enactment (noninstitutionalized caregiving, and sometimes continued informal care as a complement to institutionalized care), and role disengagement (following care recipient's death). This study draws from Pearlin and colleagues' insight that caregiving at different temporal phases might lead to different effects, and therefore differentiates effects during the role acquisition period of caregiving, continuity over time in a caregiver role, and role disengagement.

Structural symbolic interactionism (Stryker & Stratham, 1985) complements the life course perspective and guides us to consider how the occupation of a new social role leads to the internalization of a new role-identity (and its accompanying behavioral expectations) that together with other role-identities derived from other social roles comprise the person's self. Guided by structural symbolic interactionism (Stryker & Statham, 1985), we expect that there are considerable normative social expectations for behavior that individuals internalize when they assume a filial caregiver role-identity, and that these expectations and behaviors following from them are likely to have consequences for filial caregivers' mental and physical health.

The transition into a caregiver role and internalizing a filial caregiver role-identity as part of one's self have been hypothesized to result in one of the most stressful periods of the caregiving career. This may be due to the experience of watching an undesired change in the life of a parent (the onset of disability) and the need to take on a whole new set of unanticipated behavioral expectations associated with the filial caregiver role-identity (Aneshensel et al., 1995). In contemporary American culture, the role of child is generally associated with being on the receiving end of care and support, even well into adulthood (Rossi & Rossi, 1990). The cultural norm for the parental role abjures becoming a burden on adult children. Adult children in the U.S. have not been encouraged to expect a period of parental dependency. Taking on a caregiving role for a parent, therefore, is typically an unanticipated "role reversal" that might be

expected to be lead to a decline in mental and physical health. Continuation in the caregiver role over time might be expected to result in additional “wear and tear” on the filial caregiver-- particularly, as a parent’s condition deteriorates and requires more support. The ending of the caregiver role through bereavement might be also expected to be accompanied by grief and distress due to loss of the parent and the reorganization of life required by the loss of a role.

### *Filial Caregiving and Mental and Physical Health*

There is now a sizable multidisciplinary literature which has examined family caregiving and its association with mental and physical morbidity (see Biegel, Sales, & Schulz, 1991; Chappell, 1990; Gallagher-Thompson et al., 1998; Horowitz, 1985; Schulz, Visintainer, & Williamson, 1990; Schulz et al., 1995, for helpful reviews). Most studies have concluded that the filial caregiving role is associated with an increased sense of burden and psychological distress (e.g., Brody, 1990; Horowitz, 1985; George & Gwyther, 1986; Hoyert & Seltzer, 1992; Schulz et al., 1990; Schulz & Williamson, 1991; Stephens & Townsend, 1997; Young & Kahana, 1989). Caregiving has also been associated with poorer health, but the findings on physical morbidity are less consistent (Schulz et al., 1990; Schulz et al., 1995).

Most filial caregiving research has gathered information from filial caregivers already engaging in the caregiving role, therefore, only a few studies to date have focused on the transition to caregiving using a prospective research design. Seltzer and Li (2000), examined data from a representative sample of wives and adult daughters caring for older adults in Wisconsin and found that entry into filial caregiving was associated with a decline in personal mastery, but not other health outcomes. Lawton and colleagues (Lawton, Moss, Hoffman, & Perkinson, 2000) also prospectively examined the transition to caregiving among a relatively small sample of daughters and daughters-in-law and did not find negative effects on mental and physical health.

Strawbridge and his colleagues (1997) used population sample data from 1,885 respondents in the Alameda County Study to examine well-being differences between grandparent, spouse, and adult-child caregivers and their noncaregiving peers. They found that in 1994 adult-child caregivers had poorer mental health (but not physical health) than noncaregivers. Moen and her colleagues (1995), taking a life course role approach, used data from a random sample of 293 wives and mothers from upstate New York who were interviewed in 1956 and 1986 to examine caregiving (of all types) and its association with well-being. While they did not find a global association between occupancy in the caregiver role and well-being among all women in 1986, they did find that caregiving was found to be more problematic for women in their late 60s to 70s in contrast to their 50s and early 60s, for women whose early life well-being (in 1956) was poor, for women less involved in religious activities, and for women heavily involved in other social roles prior to taking on a caregiving role--suggesting that moderating factors are important to consider in evaluating caregiving effects.

Continuous care over time and its potential for “wear and tear” has been examined in several longitudinal studies (Aneshensel et al., 1995; Bodner & Kiecolt-Glaser, 1994; Lawton et al., 2000; Schulz & Williamson, 1991; Townsend et al., 1989; Li, Seltzer, & Greenberg, 1999). These studies have shown heterogeneity among caregiver response--suggesting some caregivers do worse over time, some caregivers retain similar mental and physical health, and some caregivers improve in health.

Bereavement after caregiving has also been examined in a few longitudinal studies. Mullan (1992) found that mastery increased, overload decreased, and depression initially decreased after bereavement in a sample of 67 bereaved caregivers; guilt, however, increased, and depression rose again to prebereavement levels after about a year. Bodnar and Kiecolt-Glaser (1994) found that bereaved caregivers (as well as continuing caregivers) were both significantly more depressed than controls.

*Caregiving, Gender, and Well-Being*

There is considerable evidence that the social script for a caregiver role-identity is gendered--i.e., normative expectations for caregiving are typically different for women in contrast to men (Yee & Schulz, 2000). Women more often assume the role of primary caregiver (in contrast to a secondary caregiver) than men (Montgomery, 1992); women typically engage in more hands-on tasks, especially intimate personal care, than men (Horowitz, 1985; Yee & Schulz, 2000); women are socialized to view caregiving as a more salient role in their role identity repertoire than men, thereby making them even more vulnerable to compromised well-being when stresses in this role occur (Chodorow, 1978; Gilligan, 1982; Jordan, Kaplan, Miller, Stiver, & Surrey, 1991; Kessler & McLeod, 1984; Miller, 1990). Therefore, we might well expect women's well-being to be more compromised by a transition into a filial caregiver role-identity than men's.

Although there is not total consistency in results across studies, the predominance of evidence suggests that women experience more burden and psychological distress in the caregiving role than men (see Miller & Cafasso, 1992; Montgomery, 1992; Stoller, 1992, Yee & Schulz, 2000, for reviews). However, in a thorough recent review of the literature on gender differences in psychiatric morbidity among family caregivers, Yee and Schulz (2000) note that research regarding gender differences in caregiving is still limited in that it is almost exclusively based on cross-sectional research; a large proportion of the studies are based on studies of spousal caregivers of Alzheimer's patients, leaving open the question of gender differences in caregiving of other types; most studies do not control for other sociodemographic factors (e.g., socioeconomic status) associated with psychiatric morbidity; and the vast majority of studies do not examine outcomes that might reveal potential psychological benefits as well as drawbacks of caregiving. We attempt to address each of these gaps in our study.

*Potential Moderators of Effects of Transitioning into Filial Caregiving on Well-being*

The quality of relationship with a care recipient has been suggested to be a potential factor that may moderate the effects of becoming a caregiver on well-being (Pearlin et al., 1990). Kramer (1993) found that better quality prior to spousal caregiving predicted better caregiver well-being outcomes. Lawrence and colleagues (Lawrence, Tennstedt, & Assmann, 1998) predicted better relationship quality would moderate filial caregivers' depression, but did not find evidence to support their hypothesis, although they acknowledged their small sample of filial caregivers may have led to their lack of findings. In this study we also expect that having a better quality relationship with a parent prior to caregiving will reduce the negative well-being effects of caregiving, possibly because of an increased sense of life course reciprocity for parental benefits received earlier and also because increased time spent with the parent while caregiving may not be felt to be so distressing in a relationship of greater closeness prior to caregiving.

Attitudes regarding filial obligation have also been hypothesized as a moderator of the association between caregiving and well-being. This variable has previously been considered more often in the context of examining cultural differences in the effects of caregiving (Aranda & Knight, 1997; Youn et al., 1999) rather than as a variable to be considered in the U.S. population as a whole. Overall, greater familism is expected to moderate the negative appraisal of caregiving and therefore lead to less negative well-being effects. We, too, hypothesize that greater acceptance of filial responsibility norms for aging parents will result in less negative well-being effects for those who transition into a filial caregiver role. With a similar rationale, given evidence that familism may be greater among race-ethnic groups in the U.S. who are not non-Hispanic white (Aranda & Knight, 1997), we hypothesize that new filial caregivers who are not non-Hispanic white will have less negative well-being effects than new filial caregivers who are non-Hispanic white.

Having fewer socioeconomic resources might be expected to lead to greater stress due to a new filial caregiver role (Pearlin et al., 1990). We hypothesize that new filial caregivers with

less education and new filial caregivers with less household income will experience more negative well-being effects than new filial caregivers with more education and more household income.

Other role obligations might also be expected to moderate the impact of caregiving. Additional role commitments to employment, a marital partner, and/or young children in the household might be expected to lead to greater role overload for a new filial caregiver, resulting in greater declines in well-being for those who have such role commitments than for those who don't. The literature, however, that has examined these issues has yielded inconsistent results.

In some research combining a marital role with a parent care role has been found to be beneficial for women caregivers' well-being, possibly because the marital partner may provide social support for the caregiver (Brody, 1992; Brody, Litvin, Hoffman, & Kleban, 1995). In another population study examining helping parents and other roles, Spitze, Logan, Joseph and Lee (1994) found no additional buffering or exacerbating effects on distress associated with combining parent help with marriage; Dautzenberg, Deideriks, Philipsen and Tan (1999) found a similar lack of evidence for a spouse role contributing to moderation of caregiver distress examining data from a large population sample in the Netherlands.

Combining child care and elder care was found to be one of the role combinations linked to the greatest health stress among a large sample of employed caregivers (Neal, Chapman, Ingersoll-Dayton, & Emlen, 1993). Again, however, other research has suggested that the "sandwich" situation of combining parent help and child care does not greatly exacerbate negative effects of providing help to parents (Spitze et al., 1994; Dautzenberg et al., 1999).

Employed caregivers sometimes have been found to experience better mental health than those who are not employed (Brody, Kleban, Johnsen, Hoffman, & Schoonover, 1987; Miller, 1989; Skaff & Pearlin, 1992; men in Spitze et al., 1994); in other research no difference in distress has been noted for those combining help to a parent and employment in contrast to a

helping role to a parent only (women in Spitze et al., 1994; Stull, Bowman, & Smerglia, 1994). Yet still other research has suggested that employed caregivers experience more work-family conflict and more stress than employed noncaregivers (Marks, 1998; Neal et al., 1993).

We hypothesized that adding a marital role would be associated with an attenuation of negative effects associated with filial caregiving, due to the social support this additional role may provide. We expected more potential for role conflict in combining filial caregiving with employment and in combining filial caregiving with caring for dependent children at home, therefore, we hypothesized that combining caregiving with either of these roles would lead to poorer mental and physical health among those entering the role of filial caregiver.

#### *Objectives and Hypotheses*

In sum, in an effort to add to a population and life course perspective on filial caregiving and its mental and physical health effects on contemporary American men and women, the specific objectives of this research project were: 1) to study the mental and physical health effects of transitions and continuity in the filial caregiving career using a large nationally representative sample of American adults, 2) to systematically examine gender differences across multiple career stages of filial caregiving, also controlling for many potentially confounding demographic factors, and 3) to examine multiple possible psychosocial moderators of the well-being effects of transitioning into filial caregiving---race/ethnicity, education, income, employment status, marital status, parenting status, prior relationship quality, and intergenerational attitudes prior to caregiving onset.

Guided by our theoretical orientation and the existing literature we evaluated evidence for the following hypotheses:

Hypothesis 1: Transitioning into the filial caregiver role, continuing over time in the filial caregiving role, and exiting the filial caregiving role due to parental death would all be associated with poorer mental and physical health than remaining a noncaregiver adult child who did not

experience parental death.

Hypothesis 2: Transitioning into the caregiver role, continuing in the caregiver role, and exiting the filial caregiver role due to parental death would be associated with greater negative mental and physical health effects for daughters in contrast to sons.

Hypothesis 3: Moderation of filial caregiving effects would occur; specifically, poorer relationship quality prior to beginning caregiving, less supportive attitudes about filial obligation to elderly parents, being non-Hispanic white, having a lower education, having a lower household income, being unmarried, having a child under age 19 in the household, and being employed would be associated with poorer mental and physical health outcomes among adults transitioning into the filial caregiver role.

## **METHODS**

### *Data*

These analyses used data from the first and second waves of the National Survey of Families and Households (NSFH), which includes information from personal interviews conducted in 1987-88 (Time 1) and in 1992-94 (Time 2; five years later) with a nationally representative sample of 13,007 noninstitutionalized American adults, 19 years old and older. This survey included a main sample of 9,637 households, with an additional oversample of African-Americans, Mexican-Americans, Puerto Ricans, single parents, stepparents, cohabitators, and recently married persons. The response rate at Time 1 (1987-88) was approximately 74%. The response rate at Time 2 was approximately 85% of first wave respondents. This yielded national population coverage at a rate of approximately 63% for data from both waves. Sampling weights correcting for selection probabilities and nonresponse allow this sample to match the composition of the U.S. population on age, sex, and race (see Sweet, Bumpass, & Call 1988; Sweet & Bumpass, 1996, for more design details).

The analytic sample for this study consisted of NSFH primary respondents who were

between the ages of 25 and 65 at Time 1, who reported only one parent alive at Time 1, who were respondents again at Time 2, and who did not indicate providing caregiving for a disabled family member or friend other than a biological/adopted mother or father at either Time 1 or Time 2 (N=1,476). We used these selection criteria to 1) eliminate confounding effects of caregiving to different categories of persons at Time 1 and/or between Time 1 and Time 2; and 2) because our data did not allow us to differentiate care for a biological/adopted mother from care for a biological/adopted father at Time 1, we needed to make the sole-surviving parent restriction on the sample at Time 1 in order to ascertain whether the cared for parent died or not prior to Time 2. Restricting our analytic sample also has an additional benefit; the period in which a midlife adult feels most responsible to assume parent care may, in fact, be the period when only one parent is surviving, making a son or daughter next in line in the typical hierarchical succession (Cantor, 1979) of caregiving responsibilities.

#### *Measures*

Outcomes. Outcome measures included a 12-item modified version of the Center for Epidemiological *Depression* (CES-D) index (Radloff, 1977) ( $\alpha=.93$ ), a 3-item measure of *hostility/irritability* new to NSFH2 (e.g., “On how many days during the past week did you feel irritable, or likely to fight or argue?” ( $\alpha=.86$ ), a standard one-item measure of global *happiness* (“Taking all things together, how would you say things are these days?” 1=very unhappy to 7=very happy), a 3-item version of Rosenberg's (1965) *self-esteem* index ( $\alpha=.66$ ), a 5-item *personal mastery* index consisting of 4 items from the Pearlin Mastery Scale (Pearlin, Lieberman, Menaghan, Mullan, 1981) along with a single item of control/mastery also used in Wave 1 of the NSFH ( $\alpha=.66$ ), an 18-item composite index of *psychological wellness*, comprised of six three-item subscales developed by Ryff (1989; Ryff & Keyes, 1995) measuring dimensions of positive psychological wellness: autonomy (e.g., “I judge myself by what I think is important, not by the values of what others think is important” 1=strongly disagree to 6=strongly

agree), environmental mastery (e.g., “I am quite good at managing the many responsibilities of my daily life”), positive relations with others (e.g., “People would describe me as a giving person, willing to share my time with others”), purpose in life (e.g., “Some people wander aimlessly through life, but I am not one of them”), and self-acceptance (“When I look at the story of my life, I am pleased how things have turned out”)( $\alpha=.82$ ). Finally, one standard item measuring self-assessed *global health* (“compared with other people your age, how would you describe your health?” 1=very poor to 5=excellent) was included. (See Table 1 and Table 2 for descriptives for all variables used in the analysis.)

For four outcome measures--depression, happiness, self-esteem, and health--Time 1 assessment of the measures were available and were controlled in the respective analyses. For the personal mastery scale, responses to one item measuring personal mastery that was included at Time 1 of the NSFH was included as a Time 1 control (the correlation of this one item at Time 2 with the entire 5-item index used as an outcome at Time 2 is  $r=.60$ ). The hostility index and the psychological wellness index were not included at Time 1, so the depression assessment from Time 1 was entered as a control for well-being at Time 1 in all analyses of these measures to better estimate the likely longitudinal *change* in well-being over time due to transition into filial caregiving, continuity in filial caregiving, and exiting filial caregiving due to parental death.

Caregiving status. Caregiving for a disabled parent was assessed using reports by respondents at both Time 1 and Time 2 about their caregiving both for persons with whom they resided and persons not living with them. At Time 1, in-household caregiving was assessed using answers to the question: “Do you (or does anyone living here) require care or assistance because of a disability or chronic illness?” If respondents answered “yes” they were asked for the names, ages, and relationship to them of up to four disabled persons in their households. Time 1 out-of-household caregiving is evaluated by a more direct question: “Sometimes people help take care of relatives who are seriously ill or disabled, and who do not live with them. Have

you provided such care at any time during the last 12 months?" Again, the age and relationship of up to four persons was reported.

At Time 2, respondents were asked, "Sometimes because of a physical or mental condition, illness or disability, people require the assistance of friends or relatives. During the last 12 months have you, yourself, given anyone not living with you at the time any help or assistance because of their health problem or disability?" If the respondents answered, "yes" to this question they were asked "Who did you give the most personal care of this kind?" Additionally, respondents were asked, "During the last 12 months have you, yourself, given anyone living with you at the time any help or assistance because of their health problem or disability?" Again, if the respondents answered, "yes," they were asked "Who did you give the most personal care of this kind?"

Using the responses from these four questions, we are able to identify three transitions in the filial caregiving career. The focus of this study is the impact of entering, continuing in, or exiting the filial caregiving role due to bereavement. Therefore, respondents who exited the caregiving role due to the death of a parent were distinguished from those who exited the caregiving role for other reasons. To create a reference group who experienced neither caregiving nor parental death between Time 1 and Time 2, a similar distinction was made among noncaregivers. Based on these criteria, filial caregiving contrasts were classified into seven mutually exclusive and exhaustive categories (see Table 2). Respondents who were not caregivers at either the Time 1 or Time 2 assessments, and whose parent was still alive at Time 2, were classified as *No care-Parent Alive* and used as the contrast category in all analyses. Respondents who were not caregivers at either Time 1 or Time 2, but whose surviving parent died prior to Time 2 were classified as *No care-Parent died*.

When we initially examined the respondents who entered the filial caregiver role between Time 1 and Time 2 we found that using our selection criteria we had eliminated all in-household

filial caregivers. Respondents who were out-of-household caregivers were queried at Time 2 regarding 1) the number of weeks in the last year they provided care, and 2) the average number of hours per week they provided care during the weeks they provided care. Using responses to these questions we were able to calculate the number of hours caregivers provided out-of-household care during the last year. Creating a split at the weighted median (54 hours during the year), we divided new filial caregivers into two groups: respondents who entered into the filial caregiving role between Time 1 and Time 2, and who reported 54 or more hours of care to a disabled parent during the previous year were categorized as *New care-High involvement*. Respondents who entered into the filial caregiving role between Time 1 and Time 2, and who reported providing less than 53 hours of care to a disabled parent during the previous year were classified as *New care-Low involvement*. Respondents who indicated they were providing parent care at both Time 1 and Time 2 were classified as providing *Continuous care* (all but one respondent in this group provided out-of-household care during this time period). Respondents who indicated care at Time 1, and whose parent died between waves, were classified as *End care-Parent died* (only 11 of 72 cases in this category involved in-household filial caregivers at Time 1, so we kept both in-household and out-of-household caregivers in this group together also). Respondents who indicated providing parent care at Time 1, but not at Time 2, and whose parent was still alive at Time 2 were classified as *End care-Parent alive*. (Note: we do not know from this data what specifically occasioned the ending of this care--e.g., whether it was due to another family member taking over care, the parent getting better, or institutionalization. Therefore, we do not attempt to interpret the results for this group; we only flag them to keep them distinct from the group exiting care due to death.)

Moderator and control variables. Prior relationship quality was assessed with a single item asked at Time 1 regarding the one surviving parent at that time: "How would you describe your relationship with your mother (or father)?" 1=very poor to 7=excellent. Due to the strong

skew of this variable to the highest categories (and also to ease interpretation of interaction effects), we created a dichotomous variable where 1=low quality, based on responding in the lowest tertile of the distribution for this item. Filial obligation was assessed by two items asked at Time 1: “Children ought to provide financial help to aging parents when their parents are having financial difficulty” and “Children ought to let aging parents live with them when the parents can no longer live by themselves” (recoded) 1=strongly disagree to 5=strongly agree. These two items were summed; a score below the median on this index was recoded into a variable for low filial obligation where 1=below the median on the two-item index.

Several other demographic characteristics were also examined as moderators in the last series of analyses, including race/ethnicity--dichotomously coded 1=nonwhite vs. 0=non-Hispanic white; low education--coded 1=high school or less vs. 0=more than high school; low household income--totalled across all types of earned and unearned income for all household members at Time 2 and coded 1=below median household income vs. 0=median or above household income; marital status--dichotomously coded 1=married, 0=not married; having a child age 18 or younger in the household at Time 2--dichotomous, 1=has child vs. 0=no child; and employment status at Time 2--dichotomous, 1=employed vs. 0=not employed.

Additionally, in all analyses main effects for age (coded in years), race/ethnicity, education (coded in years, except for the moderator analyses focusing on this variable), household income (coded in thousands of dollars, except for the moderator analyses focusing on this variable), marital status, parental status, and employment status were controlled since they may be associated with psychological well-being and might have confounded our results (Mirowsky & Ross, 1989; Ross, Mirowsky, & Goldstein, 1990). A dichotomous variable for missing household income at Time 2 was also included in all analyses to retain as many cases as possible in the regression analyses.

*Analytic sequence*

Multivariate OLS regression models were first estimated across the entire sample of both men and women using unweighted data. Since models estimated with weighted data revealed a similar pattern of estimates and we control for the major factors used in the weights, we report unweighted results (Winship & Radbill, 1994). Our preliminary models included variables for gender, all caregiving types, Gender X Caregiving Type interaction variables, along with the additional demographic controls to examine evidence for our second hypothesis regarding gender differences. These analyses provided evidence of at least one significant gender interaction effect for five of the seven outcomes. Therefore, it was deemed appropriate to reestimate the models for men and women separately. The results of these analyses are reported in the first panel of Table 3. Superscripts on this table denote where significant gender interaction effects were in evidence in the models that combined men and women. The F statistic for all models reported on Table 3 was significant at  $p < .00005$ .

To examine moderation effects, additional models were estimated examining only moderation of the effects of the transition to new filial caregiving ( $n=1060$ ). Each moderator was examined individually, given sample size constraints. Due to cell size constraints it was also necessary to collapse the new care--high involvement and new care low involvement groups into one transition to new care group ( $n=167$ ). Each of the models examining moderation also included all the demographic controls. The results of the individual analyses for each moderator variable considered are presented in separate sequential panels on Table 3. Multivariate regression models were estimated with SPSS.

## **RESULTS**

### *The Effects of the Transitions and Continuity in Filial Care on Well-Being*

The transition to filial care. Contrary to our first hypothesis, we did not find major negative well-being effects associated with the transition into out-of-household caregiving with a relatively low level of time involvement. Men who became new filial caregivers at a low level

of involvement evidenced a trend toward reporting a greater increase in depression than their noncaregiving male peers. Low level involvement in filial care was not associated with negative effects for women; in fact, a trend level effect suggested that becoming involved in filial care might be associated with a greater increase in self-esteem over time than not engaging in caregiving for daughters. In preliminary models that combined both men and women, only in the case of self-esteem was there a trend level gender difference, and this was contrary to our second hypothesis that women would suffer more from caregiving than men; women appeared to possibly report a greater increase in self-esteem when taking on a caregiver role than men did.

The transition into out-of-household filial care at a higher level of involvement, however, was associated with a greater increase in depression over time for men and a trend effect in the direction of a greater increase in depression for women (supporting our hypothesis). An additional trend level effect suggested that men moving into a higher level of filial care might be experiencing a greater decline over time in self-esteem than noncaregiving men. No other negative effects were noted for other dimensions of psychological well-being and health.

Continuous filial care. Continuous care for a parent was associated with more robust negative effects among men. Men providing continuous care reported more hostility, a greater decline in global happiness, and a greater decline in self-assessed health in contrast with their noncaregiving male counterparts. Contrary to hypothesis, however, there was no evidence that women experienced negative well-being effects from continuous care over time. Additionally, in the case of hostility and global health there was robust evidence of gender differences in the effects of continuous care that were contrary again to our gender hypothesis--i.e., more negative effects for men rather than women.

Ending filial care due to parental death. There were no robust well-being differences between noncaregivers and daughters and sons in our study who ended filial caregiving between the first and second NSFH interview. There was only trend level evidence that filial

bereavement following caregiving might have led to a greater decline in self-esteem for daughters.

*Factors moderating the effects of transitioning into filial care*

Relationship quality and caregiver well-being. The second panel of Table 3 includes results from analyses considering whether relationship quality with a parent prior to onset of caregiving helps moderate the influence of caregiving. We hypothesized that having a low quality relationship (in contrast to high quality) would exacerbate the stress of caregiving and lead to more negative effects for caregivers. We found only partial support for this hypothesis. Women who were in the lower tertile of reported relationship quality with the sole-surviving parent they became a caregiver for over a five-year period reported a greater decline in self-esteem over time than women who began filial care with a parent with whom they had a higher quality relationship. There was also trend level evidence that daughters entering filial care with a lower quality relationship with the parent might have experienced a greater decline in self-reported physical health over time.

Men who had a lower quality relationship with the parent they became a caregiver for reported a greater decline in happiness over time and less psychological wellness than men who became a caregiver for a parent with whom they had a very high quality relationship.

Filial obligation and caregiver well-being. The results of the analyses examining whether attitudes reflecting less endorsement of norms of adult child responsibility to help older parents might lead to greater caregiver decline in well-being when called upon to become a caregiver for a parent are reported in the third panel of Table 3. These results suggest a somewhat different pattern for daughters in contrast to sons. Consistent with our hypothesis, daughters reporting less support for filial obligation reported a greater decline in happiness and a greater decline in physical health when they became a filial caregiver than daughters reporting greater support for filial obligation norms. However, contrary to hypothesis, sons who reported less support for

filial obligation reported significantly higher levels of psychological wellness than sons who reported more support for filial obligation norms. Sons transitioning into filial care who reported less filial obligation prior to caregiving also evidenced a trend toward reporting a higher level of happiness than sons transitioning into filial care who endorsed high levels of filial obligation.

Race-ethnicity and caregiver well-being. We expected that being of nonmajority race-ethnic status might reduce the negative well-being effects of caregiving for adult child caregivers due to greater cultural familialism among nonwhite ethnic groups. We found some evidence for this hypothesis. We found that nonwhite sons reported a higher level of personal mastery than non-Hispanic white caregiving sons did. We also found trend evidence that nonwhite filial caregiver sons might be experiencing a higher level of happiness than white caregiving sons. There were no race-ethnic differences in caregiving effects observed among daughters.

Household income and caregiver well-being. We expected the stress of caregiving to be exacerbated by having the stress of a lower income to meet life demands. Supportive of this hypothesis we found that new filial caregiving daughters with a lower income reported lower levels of health than new filial caregiving daughters with a higher income. However, contrary to hypothesis, low income daughters also reported less depression, less hostility, and a trend toward more psychological wellness than high income caregiver daughters. New filial caregiving sons with lower incomes also reported a higher level of personal mastery than new filial caregiving sons with higher incomes.

Education and caregiver well-being. We also expected lower education would contribute to greater stress for caregiving adult children. However, contrary to hypothesis, we found that caregiving sons with less education reported more happiness than caregiving sons with more education. Additionally, we found trend evidence that caregiving daughters with a high school education or less reported a lower level of hostility than caregiving daughters with at least some degree of college education.

Employment and caregiver well-being. Due to the additional potential conflicting demands of employment and caregiving, we hypothesized that having an employment role along with acquiring a filial caregiving role would lead to more decline in caregiver well-being than acquiring the filial caregiving role without an employment role. We found a fair amount of support for this hypothesis in the case of women. Employed caregiving daughters reported more hostility, less personal mastery, and less psychological wellness than nonemployed caregiving daughters. Employed caregiving daughters also evidenced a trend toward reporting more depression than nonemployed caregiving daughters. However, there were no significant well-being differences between men who combined employment and caregiving and men who did not.

Dependent child care and caregiver well-being. We also expected that being sandwiched between care for a dependent child at home and having the demands of filial care would lead to more caregiver decline in well-being. The results of our analyses of this moderating factor evidenced no differences for caregiving daughters or sons between caregiver well-being while combining these roles in contrast to only having the caregiving role.

Marriage and caregiver well-being. Finally, we hypothesized that a marital role would provide support and lead to better health outcomes among new filial caregivers. The results of these analyses suggested that in support of this hypothesis, son caregivers benefited from the marital role. Specifically, married filial caregiving sons reported more psychological wellness than unmarried filial caregiver sons. Married sons providing care to parents also evidenced trends toward reporting more happiness and more self-esteem than unmarried sons transitioning into new care provision for parents. Daughters, however, did not appear to gain significant benefit from having a marital role when taking on a role of caregiving to an aging parent.

## **DISCUSSION AND CONCLUSIONS**

Using longitudinal data from a national sample of American adults spanning middle adulthood we found only limited support for the conclusion that transitioning into the filial care

role out-of-household for a sole surviving parent is associated with consistently negative effects on all dimensions of well-being. Notably, men undertaking a higher level of involvement in the filial care role report a greater increase over time in depression. Beyond this, there were no robustly significant differences between men making the transition to filial care and noncaregiving men in mental and physical health. Further, we found no robust evidence of decreased mental and physical health among women transitioning into providing care for a sole surviving parent in contrast to noncaregiving women.

Continuous care for a parent (again, for this sample, almost exclusively out-of-household care) does appear to be associated with some “wear and tear” on well-being--but, contrary to hypothesis, only for men. Men continuing care report more hostility, a greater decline in happiness, and a greater decline in their self-assessed health. It is interesting to consider the emerging story for men in the filial care role that we might begin to piece together here. The transition into care is associated with depressive symptoms--e.g., sadness, the blues, inertia, etc. Over time, the dimensions of well-being affected by caregiving change--hostility and irritability replace sadness, overall positive affect reflected in self-assessed happiness declines--and perhaps most importantly--a decline in self-assessed health is noted. Ending care through bereavement, however, appears to eliminate differences between caregiving men and noncaregiving men.

That’s the story for men, but what about the lack of evidence of negative effects for women? And the further evidence that gender differences in the effects of caregiving when they occur actually suggest filial care is more detrimental to the well-being (including health) of men than women? It may be that women caring for a parent out-of-household are able to take this caregiving more in stride than men, given the typically gendered patterns of kin assistance that have led women to engage in more contact with parents and provide more help to parents at all stages of the life course (Rossi & Rossi, 1990).

Our analyses of several moderating factors also help flesh out a more complex picture of

differences in the effects of transitioning into filial caregiving. Lower relationship quality is related to less esteem and poorer health (trend) among daughters transitioning into filial care. Likewise, poorer relationship quality with a parent leads to less happiness and less psychological wellness for sons transitioning into a filial care role.

By contrast, less sense of filial obligation prior to entering into care leads to less happiness and poorer health for caregiving daughters, perhaps due to more congruence of action with beliefs; however, less filial obligation prior to entering into care leads to more happiness and more psychological wellness among caregiving sons, perhaps due to more emotional detachment from the caregiver role for these men. On the other hand, nonwhite ethnicity, which we expected might be another proxy for greater familism, was associated with better caregiving outcomes among sons, but not daughters. Specifically, nonwhite men reported more mastery and a trend toward more happiness.

Contrary to hypothesis, each of the dimensions of disadvantaged socioeconomic status we examined--lower educational status and lower household income--was in some instances associated with better well-being for adult children entering into a filial care role than entering into the role with more advantaged social status. Low income caregiving daughters reported less depression, less hostility, and a trend toward more psychological wellness; low income caregiving sons reported more mastery. Low education caregiving sons reported more happiness and low education caregiving daughters reported a trend toward less hostility than their higher education caregiving counterparts. However, consistent with our hypothesis, low income caregiving daughters did report poorer health than high income caregiving daughters. Overall, these results suggest that the somewhat greater familism that is characteristic of lower socioeconomic status persons in contrast to higher socioeconomic status persons (Rossi & Rossi, 1990) may outweigh the resource disadvantages in terms of psychological response to entry into a caregiver role. However, the concurrent risk for greater decline in self-assessed physical health

over time found among low income women in contrast to high income women entering a caregiver role should not be overlooked.

In terms of the moderating effects of adding other important social roles, our results were mixed and also varied by gender. Combining caregiving with employment was more problematic for women than for men. Employed daughters providing care reported more hostility, less mastery, less psychological wellness and a trend toward more depression than nonemployed daughters providing care, while no differences were found between employed and nonemployed sons transitioning into a caregiver role.

Marriage was also found to be more beneficial for caregiving sons than daughters. Married caregiving sons reported more psychological wellness and trends toward more happiness and more self-esteem than nonmarried caregiving sons. By contrast, there were no differences between married and unmarried caregiving daughters. Finally, combining the role of residential parent for dependent child along with a caregiving role did not result in any difference in caregiving effects for either men or women.

Our results suggesting fewer global mental and physical health differences between caregivers and noncaregivers than much previous research may be due to multiple factors. One may be that using a national sample rather than a clinical sample has brought us to include caregivers providing much lower levels of care to disabled parents than is typical in most studies. The fact that all the new caregivers who remained in our analytic sample after we eliminated persons providing any other care at either interview wave and who had only one surviving parent were out-of-household caregivers, that all but one continuous caregiver was providing out-of-household care, and that only 11 of our 72 bereaved caregivers at Time 2 reported in-household caregiving at Time 1 suggests that the most extreme type of filial care--i.e., in-household filial care to the most severely disabled parents--a caregiver group *overrepresented* in much caregiver research--was not as well represented in this study. It is quite likely that adult children providing

extremely high levels of care may have been less inclined and/or able to take the time to respond to two waves of the NSFH's long interviews. Our results, however, do bear similarity to results reported by Spitze et al., (1994) who using data from a random sample of upstate New York residents in 1988-89, also found that for men but not women, the number of hours of help provided to a parent was associated with distress. Similar results were also found in a population sample from the Netherlands (Dautzenberg et al., 1999).

Additionally, the time interval between Time 1 and Time 2 may not have been the optimal period for examining the caregiver differences we do. For example, some caregivers who are bereaved may have lost their parent to death shortly after Time 1 and by Time 2 may be fully recovered. We may not be capturing the effects well of this transition. Similarly, the transition to caregiving may have occurred at any time during the previous 12 months. It is possible that many of our transitioning caregivers have also already "adjusted" and we are missing the time of greatest decline in mental and physical health for them.

There are also additional elements of our design that may be leading to a less than typical story. We must keep in mind that we examined only filial caregiving that occurred when the other biological/adopted parent had already died. While we expected this to be the case of increased filial responsibility and burden, it may be that going through the death and possibly care for one parent already may have contributed to some adaptational development on the part of our sample that is reducing the likelihood that we find negative effects when they are involved with the care of their surviving parent.

It is also possible that our longitudinal design which includes controls for well-being at Time 1, and our use of a contrast group is leading to evidence of fewer effects than previous cross-sectional studies have suggested because we are in a number of cases truly looking for evidence of *change* over time in well-being--not only differences in groups that might be due to other selection factors. Our controls for multiple demographic factors such as household income,

employment, children in the household, education, and age may also be eliminating some of the variables that in many studies where they are not controlled can lead to spurious negative associations between filial care and well-being. Seltzer and Li (2000) as well as Lawton and colleagues (2000) also found fewer negative adult child caregiver effects on health when employing prospective longitudinal designs with explicit noncaregiver control groups.

In sum, based on the results of our analysis of filial care and its effects on well-being thusfar we hazard the following tentative conclusions: The transition to assuming the role of out-of-household caregiver for a sole surviving parent, continuing in the caregiver role out-of-household for a sole surviving parent, and transitioning out of the filial caregiver role is not associated with a significant global decline in mental and physical health among American midlife women. The transition to filial care is associated with an increase in depression among caregiving sons. Over time in the role of filial caregiver, men evidence more hostility, a decline in happiness, and a decline in self-assessed health. Overall, the career trajectory of assuming the out-of-household caregiver role for a sole surviving parent is more detrimental to the well-being of men than women. Several factors can moderate the influence of transitioning into filial caregiving on mental and physical health and the influence of these factors often differs for men in contrast to women. Future research should continue to examine filial caregiving from a population perspective as well as a more in-depth clinical perspective to better understand the factors that increase the risk of mental and physical health decline among adult children caring for their parents.

## REFERENCES

- Aneshensel, C.S., Pearlin, L.I., Mullan, J.T., Zarit, S.H., & Whitlatch, C.J. (1995). Profiles in caregiving: The unexpected career. San Diego: Academic Press.
- Aranda, M. P., & Knight, B. G. (1997). The influence of ethnicity and culture on the caregiver stress and coping process: A sociocultural review and analysis. The Gerontologist, *37*, 342-354.
- Bengtson, V. L. & Allen, K. R. (1993). The life course perspective applied to families over time. In P. Boss, W. Doherty, R. LaRossa, W. Schumm, & S. Steinmetz (Eds), Sourcebook of family theories and methods: A contextual approach (pp. 469-499). New York: Plenum Press.
- Biegel, D. E., Sales, E., & Schulz, R. (1991). Family caregiving in chronic illness. Newbury Park, CA: Sage.
- Bodnar, J. C., & Kiecolt-Glaser, J. K. (1994). Caregiver depression after bereavement: Chronic stress isn't over when it's over. Psychology and Aging, *9*, 372-380.
- Brody, E. M. (1985). Parent care as a normative family stress. The Gerontologist, *25*, 19-29.
- Brody, E. M. (1990). Women in the middle: Their parent care years. New York: Springer.
- Brody, E. M. (1992). Differential effect of daughters' marital status on their parent care experiences. The Gerontologist, *32*, 58-67.
- Brody, E. M., Kleban, M. H., Johnsen, P. T., Hoffman, C., & Schoonover, C. B. (1987). Work status and parent care: A comparison of four groups of women. The Gerontologist, *27*, 201-208.
- Brody, E. M., Litvin, S. J., Hoffman, C., & Kleban, M.H. (1995). Marital status of caregiving daughters and co-residence with dependent parents. The Gerontologist, *27*, 75-85.
- Cantor, M. H. (1979). Neighbors and friends: An overlooked resource in the informal support system. Research on Aging, *1*, 434-463.

Chappell, N. L. (1990). Aging and social care. In R. H. Binstock & L. K. George (Eds.), Handbook of aging and the social sciences (3rd ed., pp. 438-454). San Diego, CA: Academic Press.

Chodorow, N. (1978). The reproduction of mothering: Psychoanalysis and the sociology of gender. Berkeley: University of California Press.

Dautzenberg, M.G.H., Diederiks, J.P.M., Philipsen, H., Tan, F.E.S., (1999). Multigenerational caregiving and well-being: Distress of middle-aged daughters providing assistance to elderly parents. Women and Health, 29, 57-74.

Elder, G. (1992). The life course. In E. Borgatta & M. Borgatta (Eds.), Encyclopedia of sociology. New York: MacMillan.

Elder, G. H., Jr. (1998). The life course as developmental theory. Child Development, 69, 1-12.

Gallagher-Thompson, D., Coon, D. W., Rivera, P., Powers, D., & Zeiss, A. M. (1998). Family caregiving: Stress, coping, and intervention. In M. Hersen and V. B. Van Hasselt (Eds.) Handbook of clinical geropsychology (pp. 469-493). New York: Plenum.

George, L. K. (1993). Sociological perspectives on life transitions. Annual Review of Sociology, 19, 353-373.

George, L. K., & Gwyther, L.P. (1986). Caregiver well-being: A multidimensional examination of family caregivers of demented adults. The Gerontologist, 26, 253-259.

Gilligan, C. (1982). In a different voice. Cambridge, MA: Harvard University Press.

Horowitz, A. (1985). Sons and daughters as caregivers to older parents: Differences in role performance and consequences. The Gerontologist, 25, 612-617.

Hoyert, D. L., & Seltzer, M. M. (1992). Factors related to the well-being and life activities of family caregivers. Family Relations, 41, 74-81.

Jordan, J. V., Kaplan, A. G., Miller, J. B., Stiver, I. P., & Surrey, J. L. (1991). Women's

growth in connection. New York: The Guilford Press.

Kessler, R., & McLeod, J. (1984). Sex differences in vulnerability to undesirable life events. American Sociological Review, *49*, 620-631.

Kramer, B. (1993). Marital history and prior relationship as predictors of positive and negative outcomes among wife caregivers. Family Relations, *42*, 367-375.

Lawrence, R. H., Tennstedt, S. L., & Assmann, S. F. (1998). Quality of the caregiver-care recipient relationship: Does it offset negative consequences of caregiving for family caregivers? Psychology and Aging, *13*, 150-158.

Lawton, M. P., Moss, M., Hoffman, C., & Perkinson, M. (2000). Two transitions in daughters' caregiving careers. The Gerontologist, *40*, 437-448.

Li, L. W., Seltzer, M. M., & Greenberg, J. S. (1999). Change in depressive symptoms among daughter caregivers: An 18-month longitudinal study. Psychology and Aging, *14*, 206-219.

Marks, N. F. (1996). Caregiving across the lifespan: National prevalence and predictors. Family Relations, *45*, 27-36.

Marks, N. F. (1998). Does it hurt to care? Caregiving, work-family conflict, and midlife well-being. Journal of Marriage and the Family, *60*, 951-966.

Marks, N. F., & Lambert, J. D. (1997). Family caregiving: Contemporary trends and issues. NSFH Working Paper 48. Center for Demography & Ecology, University of Wisconsin-Madison.

Miller, B. (1989). Adult children's perceptions of caregiver stress and satisfaction. Journal of Applied Gerontology, *8*, 275-293.

Miller, B. (1990). Gender differences in spouse caregiver strain: Socialization and role explanations. Journal of Marriage and the Family, *52*, 311-321.

Miller, B., & Cafasso, L. (1992). Gender differences in caregiving: Fact or artifact? The

Gerontologist, 32, 598-507.

Mirowsky, J., & Ross, C. E. (1989). The social causes of psychological distress. New York: Aldine de Gruyter.

Moen, P., Robison, J., & Fields, V. (1994). Women's work and caregiving roles: A life course approach. Journal of Gerontology: Social Sciences, 49, S176-S186.

Moen, P., Robison, J., & Dempster-McLain, D. (1995). Caregiving and women's well-being: A life course approach. Journal of Health and Social Behavior, 36, 259-273.

Montgomery, R.J.V. (1992). Gender differences in patterns of child-parent caregiving relationships. In J.W. Dwyer & R.T. Coward (Eds.), Gender, Families, and Elder Care (pp. 65-83). Newbury Park, CA: Sage.

Mullan, J. T. (1992). The bereaved caregiver: A prospective study of changes in well-being. The Gerontologist, 5, 673-683.

Neal, M. B., Chapman, N. J., Ingersoll-Dayton, B., Emlen, A. C. (1993). Balancing work and caregiving for children, adults, and elders. Newbury Park, CA: Sage.

Pearlin, L.I. (1992). The careers of caregivers. The Gerontologist, 32, 647.

Pearlin, L.I., & Aneshensel, C.S. (1994). Caregiving: The unexpected career. Social Justice Research, 7, 373-390.

Pearlin, L., Lieberman, M., Menaghan, E., & Mullan, J. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Pearlin, L., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: An overview of concepts and their measures. The Gerontologist, 30, 583-595.

Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385-401.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

- Ross, C.E., Mirowsky, J., & Goldsteen, K. (1990). The impact of the family on health: The decade in review. Journal of Marriage and the Family, *52*, 1059-1078.
- Rossi, A., & Rossi, P. H. (1990). Of human bonding: Parent-child relations across the life course. New York: Aldine de Gruyter.
- Ryff, C. (1989). Happiness is everything, or is it? Journal of Personality and Social Psychology, *6*, 1069-1081.
- Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. Journal of Personality and Social Psychology, *69*, 719-727.
- Schulz, R., Visintainer, P., & Williamson, G.M. (1990). Psychiatric and physical morbidity effects of caregiving. Journals of Gerontology: Psychological Sciences, *45*, P181-P191.
- Schulz, R., & Williamson, G.M. (1991). A 2-year longitudinal study of depression among Alzheimer's caregivers. Psychology and Aging, *6*, 569-578.
- Schulz, R., O'Brien, A. T., Brookwala, J., & Fleissner, K. (1995). Psychiatric and physical morbidity effects of dementia caregiving: Prevalence, correlates, and causes. The Gerontologist, *35*, 771-791.
- Seltzer, M. M., & Li, L. W. (2000). The dynamics of caregiving: Transitions during a three-year prospective study. The Gerontologist, *40*, 165-178.
- Skaff, M. M., & Pearlin, L. I. (1992). Caregiving: Role engulfment and the loss of self. The Gerontologist, *32*, 656-664.
- Spitze, G., Logan, J. R., Joseph, G., & Lee, E. (1994). Middle generation roles and the well-being of men and women. Journal of Gerontology: Social Sciences, *49*, S107-S116.
- Stephens, M. A. P. & Townsend, A. L. (1997). Stress of parent care: Positive and negative effects of women's other roles. Psychology and Aging, *12*, 376-386.
- Stoller, E.P. (1992). Gender differences in the experiences of caregiving spouses. In J.W.

Dwyer & R.T. Coward (Eds.), Gender, families, and elder care (pp. 49-64). Newbury Park, CA: Sage.

Stone, R., Cafferata, G.L., & Sangl, J. (1987). Caregivers of the frail elderly: A national profile. The Gerontologist, *27*, 616-626.

Strawbridge, W. J., Wallhagen, M. I., Shema, S. J., & Kaplan, G. A. (1997). New burdens or more of the same? Comparing grandparent, spouse, and adult-child caregivers. The Gerontologist, *37*, 505-510.

Stryker, S., & Statham, A. 1985. Symbolic interaction and role theory. In G. Lindzey & E. Aronson (Eds.), The Handbook of Social Psychology: Vol. I. Theory and method. (3<sup>rd</sup> ed., pp. 311-378). New York: Random House.

Stull, D. E., Bowman, K., & Smerglia, V. (1994). Women in the middle: A myth in the making? Family Relations, *43*, 319-424.

Suitor, J. J. & Pillemer, K. (1990). Transition to the status of family caregiver: A new framework for studying social support and well-being. In S. M. Stahl (Ed.), The legacy of longevity: Health and health care in later life. Newbury Park, CA: Sage.

Sweet, J. A., & Bumpass, L. L. (1996). The National Survey of Families and Households Waves 1 and 2: Data Description and Documentation. Center for Demography and Ecology, University of Wisconsin-Madison (<http://www.ssc.wisc.edu/nsfh/home.htm>).

Sweet, J.A., Bumpass, L.L., & Call, V. (1988). The design and content of the National Survey of Families and Household. NSFH Working Paper #1. Madison, WI: Center for Demography and Ecology, University of Wisconsin.

Townsend, A., Noelker, L., Deimling, G., & Bass, D. (1989). Longitudinal impact of interhousehold caregiving on adult children's mental health. Psychology and Aging, *4*, 393-401.

Winship, C., & Radbill, L. (1994). Sampling weights and regression analysis. Sociological Methods and Research, *23*, 230-263.

Yee, J. L., & Schulz, R. (2000). Gender differences in psychiatric morbidity among family caregivers: A review and analysis. The Gerontologist, *40*, 147-164.

Youn, G., Knight, B., Jeong, H.S., Benton, D. (1999). Differences in familism values and caregiving outcomes among Korean, Korean American, and White American Dementia Caregivers. Psychology and Aging, *14*, 355-364.

Young, R. F., & Kahana, E. (1989). Specifying caregiver outcomes: Gender and relationship aspects of caregiving strain. The Gerontologist, *29*, 660-666.

TABLE 1  
DESCRIPTIVE STATISTICS FOR ANALYSIS VARIABLES

	Total Sample Mean (s.d.) n=1,476	Women Mean (s.d.) n=879	Men Mean (s.d.) n=597
<b><u>Mental and Physical Health Outcomes</u></b>			
Depression (time 1)	1.97 (1.18)	2.10 (1.16)	1.82 (1.18)
Depression (time 2)	2.00 (1.15)	2.15 (1.17)	1.85 (1.11)
Hostility (time 2)	.94 (1.35)	1.01 (1.41)	.86 (1.26)
Self-esteem (time 1)	4.14 (.58)	4.14 (.61)	4.15 (.55)
Self-esteem (time 2)	4.08 (.65)	4.01 (.70)	4.15 (.58)
Global happiness (time 1)	5.48 (1.33)	5.41 (1.42)	5.54 (1.23)
Global happiness (time 2)	5.37 (1.34)	5.28 (1.41)	5.47 (1.25)
Personal mastery (1 item-time 1)	3.58 (.95)	3.52 (.95)	18.43 (3.33)
Personal mastery (time 2)	18.11 (3.49)	17.81 (3.60)	3.64 (.94)
Psychological wellness (time 2)	84.72 (11.84)	84.89 (11.75)	84.53 (11.93)
Global Health (time 1)	4.13 (.80)	4.10 (.80)	4.16 (.80)
Global Health (time 2)	3.98 (.84)	3.98 (.87)	3.98 (.80)
<b><u>Moderator and Control Variables</u></b>			
Female	.51		
Age (time 1)	43.26 (10.06)	43.51 (10.22)	42.99 (9.84)
Nonwhite	.20	.21	.19
Married	.72	.66	.79
Child # age 18 in household	.39	.37	.41
Employed	.70	.62	.79
Years of education	13.16 (3.01)	12.76 (2.80)	13.59 (3.17)
Low education <sup>a</sup>	.49	.58	.40
Household income (in thousands--time 2)	50.90 (42.15)	45.52 (42.39)	55.48 (41.44)
Low income <sup>a</sup>	.43	.48	.39
Missing on income data	.02	.02	.01
Low filial obligation <sup>a</sup>	.53	.52	.54
Low relationship quality with parent <sup>a</sup>	.29	.28	.31

Source: National Survey of Families and Households 1987-94.

Note: Descriptive statistics estimated using weighted data. Dichotomous variable means are proportions.

<sup>a</sup> Descriptives for subsample used for moderator analysis (n=1060).

TABLE 2  
Weighted Percentage Distribution (Unweighted n) of Filial Caregiving Transitions

	Women		Men		Total Sample	
	Unweighted n	Weighted %	Unweighted n	Weighted %	Unweighted n	Weighted %
No care T1 or T2-- Parent alive	502	55.8	391	63.1	893	59.3
No care T1 or T2--Parent died	160	19.3	99	17.7	259	18.5
New care--Low involvement	49	5.8	29	5.5	78	5.6
New care--High involvement	62	7.3	27	4.4	89	5.9
Continuous care	30	3.5	9	1.6	39	2.6
End care--Parent died	45	5.5	27	5.1	72	5.3
End care-Parent alive	31	2.9	15	2.7	46	2.8
Total	879	100.0	597	100.0	1476	100.0

Source: National Survey of Families and Households, 1987-94.

Note: Percentage columns do not always total 100.0 due to rounding error.

TABLE 3  
Unstandardized Regression Coefficients for the Effects of Filial Care Status on Well-Being by Gender

PREDICTORS	Depression		Hostility		Global Happiness		Self-Esteem		Personal Mastery		Psychological Wellness		Health	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
No care T1-T2-Parent alive	---	---	---	---	---	---	---	---	---	---	---	---	---	---
No care T1-T2-Parent died	-.10 <sup>a</sup>	.17 <sup>+</sup> <sup>a</sup>	-.14 <sup>a</sup>	.19 <sup>a</sup>	.25 <sup>*</sup>	-.13	-.03	.07	.13	-.24	.56	-.47	-.03 <sup>b</sup>	-.20 <sup>*b</sup>
New care-Low involvement	.11	.30 <sup>+</sup>	-.07	.24	.21	-.13	.14 <sup>+</sup> <sup>b</sup>	-.05 <sup>b</sup>	.27	.06	.20	-2.36	-.14	-.04
New care-High involvement	.17 <sup>+</sup> <sup>b</sup>	.50 <sup>*b</sup>	-.05	.00	-.14	-.20	-.05	-.17 <sup>+</sup>	-.17	.51	1.27	-.81	-.12	-.15
Continuous care T1-T2	.07	.23	.26 <sup>a</sup>	.98 <sup>**a</sup>	-.07	-.93 <sup>*</sup>	.15 <sup>b</sup>	-.18 <sup>b</sup>	.45 <sup>b</sup>	-1.03 <sup>b</sup>	1.36	2.31	.17 <sup>a</sup>	-.57 <sup>*a</sup>
End care-Parent died	.07	.18	.13	-.10	-.23	-.25	-.16 <sup>+</sup>	-.15	-.13	.01	.31	-.13	-.07	.02
End care-Parent alive	-.27 <sup>+</sup>	.13	-.79 <sup>**a</sup>	.06 <sup>a</sup>	-.04	.32	.18 <sup>+</sup>	-.02	-1.08 <sup>*</sup>	.01	.08	-1.05	-.04	.13
<b>Moderator analyses</b>														
Low relationship quality (RQ)	.00	.09	-.12	.10	-.04	-.40 <sup>**</sup>	.09 <sup>+</sup>	-.15 <sup>**</sup>	.07	-.04	.42	-1.90 <sup>+</sup>	.02	-.65
New care	.22 <sup>*</sup>	.38 <sup>*</sup>	-.11	.10	.11	-.07	.10 <sup>+</sup>	-.13 <sup>+</sup>	.00	.11	1.06	.13	.06	-.01
New care X Low RQ	-.31	.16	.11	.10	-.34	-.23 <sup>*</sup>	-.26 <sup>*</sup>	.05	.00	-.21	-.81	-6.85 <sup>*</sup>	-.25 <sup>+</sup>	-.14
Low filial obligation (FO)	.05	.06	-.03	.10	.09	-.01	-.05	.02	-.00	.06	-.15	.23	.01	-.05
New care	.03	.36 <sup>+</sup>	-.13	.07	.31 <sup>+</sup>	-.58 <sup>+</sup>	.06	-.22 <sup>+</sup>	-.07	-.07	.24	-7.02 <sup>**</sup>	.13	-.20
New care X Low FO	.26	-.02	.18	.05	-.55 <sup>*</sup>	.67 <sup>+</sup>	-.07	.14	.17	.12	1.63	7.07 <sup>*</sup>	-.27 <sup>*</sup>	.15
Nonwhite	.11	.07	.08	-.08	-.28 <sup>*</sup>	.01	.08	.03	-.03	-.14 <sup>*</sup>	1.32	.31	.09	.08
New care	.16	.48 <sup>**</sup>	-.16	.19	.11	-.29 <sup>+</sup>	.00	-.08	-.05	-.04	.35	-2.55 <sup>+</sup>	.06	-.15 <sup>+</sup>
New care X Nonwhite	-.05	-.31	.34	-.27	-.24	.62 <sup>+</sup>	.10	-.14	.17	.40 <sup>*</sup>	1.77	3.23	-.20	.29
Low income	.04	-.00	-.07	.02	-.30 <sup>*</sup>	-.16	-.08	-.02	-.15 <sup>*</sup>	-.10 <sup>+</sup>	-3.23 <sup>**</sup>	-.23	.03	-.05
New care	.34 <sup>**</sup>	.31 <sup>*</sup>	.23	.12	-.12	-.28	.11	-.03	-.02	-.14	-.80	-3.42 <sup>+</sup>	.15 <sup>+</sup>	-.11
New care X Low income	-.46 <sup>*</sup>	.22	-.64 <sup>*</sup>	-.01	.35	.30	-.16	-.21	.05	.50 <sup>**</sup>	3.42 <sup>+</sup>	4.15	-.32 <sup>*</sup>	.09
Low education	-.02	.02	.11 <sup>+</sup>	.07	.22 <sup>+</sup>	-.12	-.07	-.02	-.17 <sup>**</sup>	-.25 <sup>**</sup>	-3.28 <sup>**</sup>	-3.21 <sup>**</sup>	-.02	-.05
New care	.22 <sup>+</sup>	.48 <sup>**</sup>	.15	.20	-.07	-.50 <sup>*</sup>	-.04	-.07	.03	.03	-.43	-1.77	.06	-.03
New care X Low education	-.17	-.20	-.42 <sup>+</sup>	-.18	.17	.82 <sup>*</sup>	.15	-.09	-.01	.08	2.99	.22	-.09	-.05
Employed	-.28 <sup>**</sup>	-.06	.76 <sup>**</sup>	-.07	.18	.32	.11 <sup>+</sup>	.06	.11 <sup>+</sup>	.16	2.15 <sup>*</sup>	2.21	.27 <sup>***</sup>	.11
New care	-.10	.81 <sup>*</sup>	-.58 <sup>*</sup>	.18	.29	-.41	.08	-.24	.25 <sup>*</sup>	.02	5.41 <sup>*</sup>	-2.33	.06	-.08
New care X Employed	.37 <sup>+</sup>	-.49	.76 <sup>**</sup>	-.07	-.37	.30	-.08	.15	-.36 <sup>**</sup>	.04	-6.82 <sup>**</sup>	.72	-.08	.01
Child in household	-.20 <sup>+</sup>	-.01	-.16	.16	.22	-.13	.02	.02	-.02	.01	-1.05	-2.62 <sup>*</sup>	.02	-.11 <sup>+</sup>
New care	.17	.48 <sup>*</sup>	-.03	.11	.16	.00	-.02	-.06	.01	.15	.76	-3.64 <sup>+</sup>	.01	-.01
New care X Child in household	-.05	-.16	-.10	.01	-.29	-.32	.12	-.09	-.03	-.19	.10	3.57	-.03	-.12

TABLE 3 (Continued)

<u>PREDICTORS</u>	Depression		Hostility		Global Happiness		Self-Esteem		Personal Mastery		Psychological Wellness		Health	
	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>
Married	-.17+	-.20+	-.20+	-.14	.43**	.27+	-.09+	-.02	.04	.03	1.12	2.63*	-.02	-.01
New care	.13	.72*	-.10	.23	.20	-.82*	.02	-.35*	.09	-.05	2.04	-8.15*	-.08	-.07
New care X Married	.03	-.40	.05	-.13	-.29	.80+	.02	.29+	-.16	.12	-2.18	7.84*	.14	-.00

Source: National Survey of Families and Households 1987-1994.

Note: All models also controlled for age, race-ethnicity, education, household income, missing on income, marital status, employment status, and having a child under age 19 in the household. Models estimated for the analyses of multiple caregiving transitions (top panel) are based on a sample of 1,476 respondents. Analyses of moderator variables are based on a sample of 1,060 respondents. Analyses used unweighted data.

+ p # .10 \* p # .05 \*\* p # .01 \*\*\* p # .001 (one-tailed test)

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