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Does Gender Moderate Factors Associated with Whether Spouses Are the Sole Providers of IADL Care to Their Partners?

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Abstract

We explored whether gender moderated the influence of other factors on solo spousal caregiving. The subsample (N = 452) from the AHEAD study included elderly care recipients (CRs) receiving IADL assistance and their spouses. Logistic regression modeled the likelihood of solo spousal IADL care. Gender moderation was tested by product terms between CRs' gender and measures of partners' health, potential helpers, and sociodemographic characteristics. As numbers of CRs' IADLs and couples' proximate daughters increased, wives less often received care solely from their husbands, but husbands' receipt of care from their wives was unaffected. Age differences between spouses and CRs affected solo spousal caregiving to wives and husbands in opposite ways. Regardless of gender, CRs' number of ADL limitations and spouses with IADL or ADL limitations reduced the likelihood of solo spouse care. Identifying circumstances influencing solo spouse caregiving differently among couples with frail wives and husbands facilitates gender sensitive services.

Keywords

caregiving wives; caregiving husbands

Considerable evidence indicates that the spouse is often the only provider of care to his or her partner. Nevertheless, our understanding of the circumstances influencing whether or not the spouse is the sole caregiver is limited, especially about the combined influence of gender and other factors on the spousal role in caregiver networks. Both husbands and wives are typically named as primary caregivers by their frail elderly partners in representative samples of community-dwelling married elders in the United States who need assistance with instrumental (IADL) or basic personal (ADL) activities of daily living (Tennstedt, McKinlay, and Sullivan 1989; Wolff and Kasper 2006). Furthermore, these studies indicate

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that the spouse is usually providing such assistance without help from others. Wives are more likely than husbands to be named by their partner as the sole caregiver, even when other factors associated with caregiving are considered (Feld, Dunkle, Schroepfer, and Shen 2006; Katz, Kabeto, and Langa 2000; Stoller and Cutler 1992). Three main types of other factors have been examined in research on whether the spouse is the sole provider of functional care: health problems of the partner receiving care and the spouse; availability of other helpers; and sociodemographic characteristics of the couple (Feld et al. 2006; Katz et al. 2000; Stoller and Cutler 1992; Wister and Dykstra 2000). As yet, research has not considered whether the impact of these other factors tied to the spouse's solo caregiving role differ when the partner receiving care is the husband or wife. To address this gap, we explored whether gender moderates the influence of these other factors on the spouse's solo role in caregiver networks.

Two types of evidence suggest that gender may influence the relevance of some other factors to the spouse's solo role in caregiver networks. First, research has demonstrated that gender moderates other aspects of caregiving. For example, caregiving husbands and wives facing similar stressors sometimes use different coping methods (Calasanti and Bowen 2006; Rose and Bruce 1995; Thompson 2000), respond with different levels of psychosocial stress (Davidson, Arber, and Ginn 2000), and display dissimilar physiological reactions (Scanlan et al. 1998). Additionally, frail wives and husbands receiving care vary in their emotional responses to receiving care from their spouse (Davidson et al. 2000; Stoller and Miklowski 2008). Secondly, considerable theoretical and empirical analyses indicate that even though both husbands and wives are committed to providing assistance to partners who become impaired, the gender of both members of the couple influences who provides care (Arber, Davidson and Ginn 2003; Calasanti and Bowen 2006). Gender differences in marital care provision can be influenced by social institutions; everyday gendered interactions that form part of immediate situations and environments that individuals are imbedded in; gendered interactions between members of the marital dyad; and gendered differences in individual behaviors and identities of elderly married men and women (Thompson 1993). For example, service providers may be less likely to offer assistance to wives providing care than to comparable husbands (Arksey and Glendinning 2007). Judgments by members of the couple's informal network about the frail partner's need for care and the capability of the spouse to provide needed assistance may vary with the gender of the potential spouse caregiver and frail partner (Calasanti 2003). Elderly married men and women may bring different gendered priorities, skills, and expectations to caregiving situations (Calasanti and Bowen 2006; Kramer 2002; Stoller 2002; Thompson 1993). They also may interpret giving and receiving care in light of their own masculine and feminine identities, and to behave in ways designed to maintain these identities (Calasanti 2003; Davidson et al. 2000).

When considering the possible moderating influence of gender on solo spousal caregiving, it is important to distinguish between IADL and ADL caregiving for several conceptual reasons. First, non-institutionalized elders are nearly twice as likely to need assistance with IADL as with ADL limitations (Adams, Lucas, and Barnes 2008); yet, there has been a relative neglect of IADL caregiving, despite its importance for sustaining community living among the elderly (National Alliance for Caregiving 1997). Second, strong theoretical and empirical evidence supports the multidimensional nature of functional needs (Johnson and Wolinsky 1993); nevertheless, much prior research on spousal caregiving is problematic because it combines ADL and IADL care (e.g., Katz et al. 2000; Wolff and Kasper 2006). Third, there are important differences in the composition of IADL and ADL caregiver networks. Adult children are more often a part of IADL than ADL caregiver networks (Wolf, Freedman, and Soldo 1997). Fourth, somewhat different factors influence the structures of IADL and ADL caregiver networks. Race/ethnicity and the availability of children are more important determinants of who is included in IADL than ADL caregiver

networks (White-Means and Rubin 2008). Finally, becoming an ADL caregiver is more likely linked to poor mental and physical health than is entering the role of IADL caregiver (Burton et al. 2003). In the present study, we could only explore the moderating role of gender on solo spousal IADL caregiving due to the small number of married elders receiving ADL help.

Enhanced knowledge about circumstances influencing the spouse's role in caregiver networks is important to provide effective social services to elderly couples dealing with functional limitations. Consistent evidence indicates spouses are more likely than other caregivers to suffer negative emotional and physical outcomes (Pinquart and Sorensen, 2003). Elderly caregiving spouses are often at risk for health problems, a situation that can lead to a serious disruption of needed care to their partner when there are no secondary helpers (Tennstedt et al. 1989). Yet, spousal caregivers are less likely than other primary caregivers to have any informal helpers or to use service programs designed to relieve caregiver burden (O'Connor 1995; Stoller 1992). Limited use of helpers from outside the marital dyad may reflect the desire of elderly couples to survive as an independent unit and the willingness of older spouses to cross traditional gender boundaries to do so (Calasanti and Bowen 2006; Rose and Bruce 1995). By identifying circumstances that reduce the likelihood of solo spousal IADL caregiving in similar and different ways for couples in which husbands or wives need care, this study addresses the call for gender sensitive services that more effectively meet the needs of frail elderly men and women and their spouses (Krisi, Hevonen, and Jylha 2000; Russell 2001). This issue is likely to become more important given expected increases in the number of elderly American couples in future cohorts due to continuing improvements in longevity and declining gender differences in age at marriage and life span (Uhlenberg and Cheuk 2008).

Factors Influencing the Spouse's Role as Caregiver

Gender

In keeping with a gender perspective on marriage (Thompson 1993; Sullivan 2004), we view possible gender differences in whether or not the spouse is the sole member provider of care as the outcome of forces operating at different levels, including gendered aspects of institutional structures and ideologies in a particular society, and gendered behaviors and beliefs within specific personal relationships. From this perspective, whether the spouse is the sole caregiver is likely influenced by structural gender inequalities and restrictions as well as societal norms about gender appropriate behaviors experienced by elderly individuals throughout their life course. When caregiving is needed, such societal forces may be reflected in the beliefs and behaviors of the couple's medical and social services providers (Arksey and Glendinning 2007; Stoller 1992). The impact of gendered personal relationships may be seen both in reactions of members of the couple's informal social network (Calasanti 2003) and the couple's history of gendered beliefs and behaviors about household division of labor over the course of their marriage (Sullivan 2004). Gendered behaviors and identities of elderly frail partners and their spouses thus reflect practices and self-definitions they developed as a result of specific experiences within particular age cohorts in the society in which they live (Arber et al. 2003; Fine and Glendinning 2005). Gendered behaviors and identities of elderly husbands and wives are expected to affect how each partner thinks, feels, and behaves, their expectations about one another, as well as how they negotiate gendered differences in expectations about caregiving (Rose and Bruce 1995).

Gender perspectives on caregiving, as well as theories of traditional gender roles, (Davidson et al. 2000; Thompson 1993) recognize diversity among both men and women in how they define their masculine and feminine behaviors and identities (Krisi et al. 2000), while also

acknowledging some common gender differences. These gendered differences can include aspects of self-concepts, coping styles, and caregiving skills that could influence the role of husbands and wives as caregivers to their frail wives and husbands, respectively.

Institutional and personal relationships experienced by the current cohorts of the elderly are often described as being manifest in feminine identities that are more likely than masculine ones to include the provision of physical care to one's spouse, whereas the gendered identities of both husbands and wives include giving emotional care to one's partner (Arber and Ginn 1995). When wives' identities as women include giving hands-on care, they may be more prone than husbands to resist seeking or accepting help from others when their partner needs assistance with functional limitations (Calasanti 2003; Stoller 1992). Similarly, when social institutions expect women to be competent in domestic labors involved in running a household, and competence is also part of feminine identities (Arksey and Glendinning 2007; Calasanti 2003), elderly wives may be unlikely to seek or accept outside assistance. Such assistance could include home delivered meals, home help services, or informal help from adult children. These observations are consistent with findings from a qualitative study of spouses carrying out the demanding responsibilities involved in caring for partners with dementia (Calasanti and Bowen 2006). Specifically, wives were less likely than husbands to report receiving help in providing such care. Also consistent with such gendered behaviors and beliefs is evidence that elderly wives receiving IADL or ADL assistance are less likely than husbands to name their spouse as their sole care provider (Feld et al. 2006; Stoller and Cutler 1992).

Less attention has been paid to how gendered institutional and interpersonal forces and men's gendered behaviors and masculine identities might influence whether the husband is the sole caregiver (Russell 2001; Thompson 2000). Gender inequality in the labor market may be linked to what has been described as men's managerial approach to caregiving, although this coping style may be class and race-related (Russell 2001; Stoller and Malkowski 2008). Some evidence indicates that husbands providing care to their partner with dementia were more likely than comparable wives to view their caregiving as involving new domestic tasks, to use task-focused problem-solving strategies to meet these new responsibilities, and to view caregiving as a job to be done in the most efficacious way (Calasanti and King 2007; Russell 2001). Men in these circumstances may be unlikely to feel threatened by sharing caregiving and willing to enlist other caregivers when this is seen as facilitating getting the work done or maintaining the independence of the marital unit (Calasanti and Bowen 2006; Russell 2001). Masculine views of caregiving as new tasks may also mean that husbands will be more likely than wives to report that they have taken on extra responsibilities when describing the care they provide (Arber and Ginn 1995; Calasanti 2003). On the other hand, some men's institutional and interpersonal histories may be linked to masculine behaviors and identities encompassing strong components of self-reliance and stoicism (Calasanti 2005; Kramer 2002), which may make it difficult for them to seek or accept outside assistance.

Gendered experiences earlier in the life course, related to the kinds and amount of paid labor participation and household and child care responsibilities may also lead to some differences in knowledge and skills relating to caregiving (Calasanti and Bowen 2006; Ciambone and Allen 2002; Stoller 1992) and influence whether the spouse is the sole caregiver. Both husbands and wives may need to take on new tasks when caring for a frail partner (Calasanti and Bowen 2006). Despite this similarity, prior gendered experiences could mean that wives are more likely than husbands to view the knowledge and skills related to spousal caregiving as an extension of prior gendered experiences, to expect to be competent as caregivers (Calasanti and Bowen 2006), and to provide all the care their frail husband needs without outside help.

Gendered beliefs and expectations of frail partners receiving care, members of the couple's informal social network, and health care and social service professionals are also likely to influence the spousal caregiving role. Gendered reactions by care recipients were shown in a study of widowed men and women who had provided intensive care to their partners (Davidson et al. 2000). Wives receiving spousal help were depicted as accommodating to being helped and imagining themselves in the caregiving role. Husbands receiving help were described as trying to retain power over their spouse by making demanding requests. Such gendered differences in care recipients' reactions might also influence their responses to the presence of helpers other than the spouse in caregiver networks, although we found no studies directly addressing this issue. Whether members of a couple's informal social network use the same standards in judgments about husbands and wives providing care is also recognized as critical to understanding whether husbands and wives are their frail partner's sole caregiver (Calasanti 2003). Implicit policies and practices of some health care and social service systems reflecting assumptions about a gender-based division of labor could result in providing less formal assistance to frail elders being cared for by wives than by husbands (Arksey and Glendinning 2007; Stoller 1992).

Other Factors

We relied on the task-specific model (TSM) of caregiving to conceptualize how factors besides gender might affect the spouse's caregiving role (Messeri, Silverstein, and Litwak 1993). The TSM predicts that spouses of both genders will be primary and often solo caregivers because of the typically good fit between structural features of marital dyads and the structure of many caregiving tasks, such as those related to skills, commitment, and proximity. The TSM also suggests circumstances indicating a poor fit between characteristics of the spouse and those required by specific caregiving tasks (Litwak, Jessop, and Moulton 1994). These include situations where caregiving tasks require time, energy, or skills that are beyond the human resources of the spouse. Factors likely to signal poor fit include those related to the health of the frail partner and the spouse, including care recipients with numerous IADL or ADL limitations, spouses who themselves have functional limitations, or care recipients or spouses at very advanced ages. In those situations, the TSM predicts that the spouse will be less likely to be the only helper in the caregiver network. Second, the TSM recognizes that the structure of some tasks, such as taking medications or shopping for groceries—that require periodically proximate, highly committed, but not technically skilled caregivers—may be also congruent with the structural aspects of helpers outside the marital dyad. This suggests that factors related to the availability of informal and formal helpers, such as the number of proximate children and access to home health aides, might reduce the likelihood of the spouse being the sole caregiver.

The TSM also recognizes that social characteristics may influence the fit between the structures of caregiving tasks and of potential helpers (Litwak et al. 1994). These characteristics include gender, which could affect the fit between caregiving tasks and human resources because of skills differences for husbands and wives stemming from earlier institutional and interpersonal life course experiences. Gendered and racial/ethnic norms are also acknowledged in the TSM as possible influences on who provides care and caregiving responsibilities that violate norms are viewed as possibly leading to seeking help outside the marital dyad. However, as the TSM does not provide much specificity on these norms, we turned to other theoretical perspectives and empirical evidence. The more collectivistic orientation to caregiving of Black than White American families (Dilworth-Anderson, Williams, and Cooper 1999) is consistent with evidence that White caregiving networks are more likely to include only spouses and children, whereas those of Black Americans are more likely also to include other kin and non-kin (White-Means and Rubin 2008). This

orientation suggests that solo spousal caregiving may be more likely among elderly White than Black Americans. Greater marital longevity may increase commitment to providing care to one's spouse (Litwak et al. 1994), lessen the perceived burden of providing such care (Stoller and Miklowski 2008), and shape patterns of caregiving reciprocity and obligations (Fine and Glendinning 2005). These observations suggest that as couples age and their marriages endure, sole reliance on the spouse for care may also increase.

Gender as a Moderator of Factors Influencing the Spouse's Role in Caregiver Networks

We now illustrate how previously cited theoretical ideas and empirical evidence led us to develop exploratory ideas about ways gender might moderate the impact of other factors on whether spouses provide all the care frail partners receive. Three types of factors are discussed: health of both partners, availability of other caregivers, and sociodemographic characteristics.

Consistent with the TSM, prior research has clearly shown that the extent of health deficits of both partners is related to a reduced likelihood of the spouse being the primary or sole caregiver (e.g., Feld et al. 2006; Katz et al. 2000; Stoller and Cutler 1992; Wister and Dykstra 2000). Empirical evidence of an association between the availability of other potential caregivers—including adult children and formal helpers—and a reduced likelihood of solo spousal caregiving is more limited and less consistent. Some research (Allen, Goldscheider, and Ciambone 1999; Feld et al. 2006) supports this association, but other evidence does not (Stoller and Cutler 1992; Wister and Dykstra 2000).

As previously discussed, there are gendered differences in institutional and interpersonal settings of the current cohorts of elderly men and women, and in common masculine and feminine behaviors and identities. These differences raise the possibility that gender of frail partners and their spouses might moderate the relationship between the likelihood of the spouse being a solo caregiver and the health deficits of both partners or the availability of alternative caregivers. Professionals, informal social network members, and spouses often expect wives to have the caregiving skills needed to assist their frail partner (Arber and Ginn 1995; Stoller 1992); however, the same expectations may not hold for husbands. Additionally, wives may be likely to judge themselves by their ability to meet their frail partners entire care needs without assistance (Calasanti 2003) and to see themselves as having appropriate caregiving skills (Ciambone and Allen 2002); husbands may be less likely to have these self-views (Calasanti 2003). This combination of conditions suggests that the frail partner's and the spouse's health deficits, the proximity of adult children, or the access to formal social services may be less likely to reduce the possibility of solo caregiving for wives than for husbands. A similar prediction about gender moderation results when husbands view caregiving as a job whose goal is the provision of good care to the frail partner in whatever way appropriate (Calasanti and King 2007; Thompson 2000). Husbands with these beliefs may see the involvement of other caregivers as an appropriate way to foster better care when their own health deficits or those of their frail partner are high or when helpers are available. Such views may complement gendered differences in institutional and interpersonal experiences. On the other hand, when husbands view their masculinities as including self-reliance or stoicism (Calasanti 2005; Kramer 2002), they may view assistance from other helpers as a threat. For husbands with this perspective, the likelihood of being a solo caregiver may not vary when health deficits increase or alternate caregivers are more readily available.

Sociodemographic characteristics of couples, including race/ethnicity, age, and marital duration, have also been investigated as possibly influencing whether the spouse is the sole

care provider, but such studies are rare and sometimes yield inconsistent results (e.g., Feld, Dunkle, and Schroepfer 2004; Stoller and Cutler 1992; White-Means and Rubin 2004). This research is premised on assumptions that these characteristics might reflect predispositions to use social services (Scharlach et al. 2008), beliefs of elderly couples and potential helpers about who are appropriate caregivers (Soldo, Wolf, and Agree 1990), and the fit between structural aspects of caregiving tasks and potential caregivers (Litwak et al. 1994). Findings from two studies testing whether married Black Americans are less likely than White Americans to have solo spousal caregivers were inconsistent (Feld et al. 2004; Stoller and Cutler 1992). Nonetheless, there are reasons to explore whether gender moderates the effects of race/ethnicity on spousal solo caregiving. Gender perspectives on caregiving recognize institutional and structural aspects of the social construction of gender that might vary for persons of different races and ethnicities (Russell 2001). This view is consistent with evidence that throughout the life course the typically disadvantaged socioeconomic status for African Americans produces greater similarity in the positions of Black men and women in the larger social structure than those of White men and women (Thompson 1993). These societal experiences suggest that family responsibilities for household and caregiving activities may be less gender-linked among Black than White elderly couples. Also consistent are findings from a nationally representative sample of frail elderly that showed no gender differences in home health care use among Black men and women, even though White women were more likely than men to use such services (White-Means and Rubin 2004).

Similar issues are pertinent to whether gender influences the links between the spouse being the sole caregiver and increased age or marital duration among elderly couples. Despite theoretical reasons suggesting that as couples age and their marriages endure, sole reliance on the spouse for care may also increase (Fine and Glendinning 2005; Litwak et al. 1994), the only located study testing this idea did not find support for it (Feld et al. 2006). Nevertheless, there are suggestions that gender could be a critical context for the impact of age and marital duration on the spouse's caregiving role. The social construction of age and gender are intertwined (Calasanti 2003) and changes in gender relationships may occur at older ages when labor force participation and child rearing involvement can diminish (e.g., Thompson 2002). Long-term relationships may increase the willingness of elderly couples to cross typical gendered divisions of labor in order to remain independent (Rose and Bruce 1995). For these reasons, it seemed useful to explore whether gender differences in solo spousal IADL caregiving might diminish as elderly couples' age or their marital duration increases.

The current study builds on theoretical and empirical literature concerning the role of gender and other factors in caregiving among elderly couples. Using nationally representative data for American elders, we begin to address the lack of prior evidence on whether the gender of the care recipient moderates the impact of other factors that influence solo spousal caregiving. Specifically, we explored whether relationships between the likelihood of solo spousal IADL caregiving and measures of the couples' health, available informal and formal caregivers, and sociodemographic characteristics differed when the partner receiving IADL care was the wife or the husband.

METHODS

We used the first wave of the Asset and Health Dynamics Among the Oldest Old (AHEAD) survey, conducted in 1993–94 (see Soldo et al. 1997 for sampling details). AHEAD's complex multistage design yielded a nationally representative sample of 8,222 community-dwelling elders aged 70 and older and their spouses or partners. Our sub-sample was selected to include only those individuals for whom: (1) data were collected about both

members of a couple, defined as two co-residing persons who self-identified as spouses ($n = 4,336$ individuals or $2,168$ couples); (2) at least one partner was 70 years of age or older and had an IADL limitation, as defined in Table 1 ($n = 547$ couples); (3) this partner received IADL help at least once a week within the last month ($n = 518$ couples); (4) both members of the couple were Black or White ($n = 457$ couples); and (5) complete data were available for the remaining study variables ($n = 453$ couples). Couples where neither partner received IADL help at least once a week were excluded, as complete helper information was not obtained for them. We only included couples for whom both members self-identified as Non-Hispanic White or as Non-Hispanic Black or African American due to low numbers in specific types of other racial/ethnic couples. This decision was based on the diverse caregiving experiences among minority ethnic groups (Pinquart and Sorensen 2005) and the problems inherent in combining couples with various racial/ethnic profiles into one category (Okazaki and Sue 1995). One otherwise eligible couple was deleted as an influential observation based on regression diagnostics, resulting in a final study sample of 452 couples.

Both partners in most study couples were interviewed (66.0%), but for 153 couples, a proxy (of whom 84.3% were spouses) provided the care recipient's data. Nearly all proxy data (92.8%) resulted from situations where the recipient was too ill to participate.

The care recipient was the member of the couple who received IADL help at least weekly and was 70 years of age or older. Only one member met these criteria in 87.0% of the eligible couples. Additional criteria were used to define the care recipient in couples in which both members met the age and IADL help criteria ($n = 59$), as inclusion of these couples was desirable both to reflect an actual situation couples face and to maintain the representative nature of the sample. In these couples, the care recipient was the one with the greater number of IADL limitations ($n = 48$) or was randomly chosen when the number of IADL limitations was equal ($n = 11$)¹. The other partner was labeled the spouse of the care recipient.

Dependent Variable

The dichotomous dependent variable defined whether or not the spouse was the sole source of IADL care, based on replies to questions about who most often helps the care recipient (CR) partner with the set of four IADL tasks (See Table 1) and who else most often helps. A couple was coded as having a solo spouse caregiver when the spouse of the care recipient was the only person providing any weekly IADL help received in the last month ($n = 355$). Couples coded as not having a solo spouse caregiver included both those in which the (CR) got help from the spouse and another helper ($n = 51$) or from only person(s) other than the spouse ($n = 46$)².

Independent Variables

Variables representing main and gender interaction effects were used in multivariate analyses. Main effect variables were the gender of the CR and other variables (shown in Table 1) that have been proposed in previously reviewed literature as possible influences on the spouse being the sole provider of IADL care. Gender of the CR was coded 0 for CR husbands and 1 for CR wives. It is important to note that as all couples who met the study's

¹We performed the multivariate analyses described in the section on Analytic Strategy both with and without these 11 couples. The same variables were significant in both analyses (data not shown). Given the desirability of retaining all eligible couples, we report the analyses that included these 11 couples.

²The 51 couples in which the spouse and someone else provided care included 36 receiving spousal and other informal help and 15 receiving spousal and formal help. The 46 couples in which the spouse did not provide any help spouse included 33 receiving only informal help, 5 receiving informal and formal help, and 8 getting only formal help.

eligibility requirements consisted of husbands and wives, when the CR was the wife, the spouse was always the husband and vice versa. Gender interaction variables were of primary theoretical interest. These were product terms constructed by multiplying the value on the variable representing the CR's gender by the value for the other main effect variables. These product terms tested whether the effects of the other variables on solo spousal caregiving varied for couples when the wife or the husband was the CR.

Poor health was indexed in seven main effect variables, including five concerning the CR and two concerning the CR's spouse. Details on coding of these and all other variables, as well as total sample descriptive statistics, are presented in Table 1. Availability of potential helpers was assessed by five main effect variables, including three indexing the availability of the CR's spouse and other informal helpers and two related to availability of formal help from governmental services targeting the poor and from privately purchased services.

Couples' sociodemographic characteristics that might be related to solo spousal caregiving were indexed by four main effect variables shown in Table 1. Although we viewed age, like marital duration, as possibly indicating an enhanced focus on the marital dyad for support and a commitment to providing spousal care, we also recognized that advanced age might capture unmeasured aspects of poor health. Two measures of the couple's ages were included for methodological reasons. Because of serious multicollinearity when both partners' ages were included, older age was indexed by the sum of the partner's ages, as we lacked a legitimate theoretical basis for including only the CR's or only the spouse's age. The difference between the spouse's and the CR's ages was included to control for the fact that the same value for a couple's summed ages could result from different combinations of spouse's and recipient's ages.

Analytic Strategy

To obtain appropriate descriptive statistics and standard errors, we used normalized sampling weights and `svy` commands in Stata's statistical package (StataCorp 2003). Normalized weights adjust for AHEAD's complex multistage sample design that over sampled minority elders, for nonresponse, and for deviations from the 1990 Census. `Svy` commands adjust for sampling weights, clustering, and sample stratification by geographic location and size of place. `Svy` commands yield approximately unbiased or conservative variance estimates by taking into account clustering within primary and secondary sampling units and, implicitly, clustering within households (interviewing both members of couples).

To assess whether gender of the CR moderated the effects of other variables on the spouse's caregiving role, we used binomial logistic regression to model the probability of the spouse being the sole IADL caregiver. Because some variables did not have true zero values, non-dichotomous variables were centered and zero was set equal to the mean of the total sample (Jaccard 2001). Centering affected the intercept but not the regression coefficients.

The first step of the regression model included the variables for the main effects of the CR's gender and the other 16 variables. In the next modeling step, we first added all the gender interaction variables (product terms for gender and all other variables). We then manually used the backward elimination technique to delete, one at a time, the product term whose regression coefficient was associated with the highest p value. The final regression model retained only those product terms at or close to $p = .05$. These product terms tested differences in the regression coefficients of each predictor for the two subgroups of couples defined by the CR's gender (Jaccard 2001). Additional analyses explained in the Results section were used to identify the specific nature of any such differences. The final logistic regression model that included all main effect variables and four product terms was used for regression diagnostic analyses. Multicollinearity checks revealed no serious problems.

RESULTS

Descriptive Gender Findings

Bivariate gender differences were tested for all main effect variables (data not shown). Gender of the CR was not significantly related to whether the spouse was the sole IADL caregiver or to any indicator of health of the CR's spouse. Caregivers of wives and husbands, however, were assisting elderly persons who had somewhat different health care needs. Specifically, wives receiving IADL care had more ADL limitations, were significantly less likely to have cognitive problems or a proxy respondent, and tended to have fewer IADL limitations than husbands receiving care. Couples with CR wives also had significantly higher incomes relative to the poverty line, but were similar to those with CR husbands on indicators of the availability of formal and informal helpers. The only significant gender differences in sociodemographic characteristics concerned the partners' ages. The summed ages of couples in which the wife was the CR indicated that these couples were older than those in which the husband was the CR. Additionally, in couples with a wife receiving IADL care, her spouse was on average slightly less than a year older, whereas in couples with a husband receiving care, his spouse was on average more than four years younger.

Table 2 presents the bivariate relationships between each study variable and whether or not the spouse was the sole IADL caregiver. These relationships were examined separately for couples in which the CR was the wife or the husband. These data show that only three variables were significantly associated with solo spousal caregiving regardless of the gender of the CR. The spouse was more likely to be the sole IADL caregiver when the spouse had any IADL limitations or any ADL limitations (significantly so for both genders) and when the CR had fewer ADLs (significantly for couples with a CR wife and at $p = .067$ for couples with a CR husband). The remaining significant associations were found either for couples with wives receiving care, or for couples with a CR husband. These results suggest that gender influences some of the variables associated with whether or not the spouse is the sole IADL care provider.

Testing Whether Gender is a Moderator

Table 3 presents the binomial logistic regression modeling assessing whether the gender of the CR moderates the relationship between the other predictor variables and whether or not the spouse was the sole IADL caregiver. Model 1 shows the influence of the 16 other main effect independent variables and of gender on the likelihood that the spouse provides all the IADL care. Model 2 adds the four gender interaction terms that were retained in the final model. The gender interaction terms in Model 2 for the CR's number of IADLs ($p = .007$) and for spouse's age – recipient's age ($p = .001$) were significant, indicating that the regression coefficients for these variables differed significantly for couples with a CR wife and those with a CR husband. The gender interactions terms for the CR's number of health conditions and the couple's number of proximate daughters fell short of the .05 criterion ($p = .057$ and $.067$, respectively).

It is important to emphasize that in Model 2 of Table 3 the coefficients for predictor variables involved in the interaction terms (i.e., CR no. of IADLs, CR no. of conditions, Couple's no. of daughters, and Spouse's age – CR's age) do not represent main effects. Instead, they show the slope for each of these variables when the gender variable was set to the reference group (i.e., CR husbands). To obtain the slopes for these variables for CR wives, we followed Jaccard's (2001, pp. 32–33) recommendations for interpreting logistic regression models that include interaction terms involving a qualitative moderator variable and continuous predictor variables. This required refitting the model after redefining the

reference group for gender to be CR wives. Table 4 shows the slopes of these main effects for each gender, along with the p-values for the effects. As this table shows, the effect of the CR's number of IADLs was negative and significant for couples in which the wife was the CR ($b = .662, p = .003$), but was not significant for couples with CR husbands ($b = .144, p = .489$). This means husbands were less likely to be the sole provider of IADL care to their wives as the number of the wife's IADL limitations increased, whereas this variable was not important for whether wives were the sole source of IADL assistance received by their husbands. Similarly, the effect of the couple's number of proximate daughters was negative and significant when the CR was the husband ($b = -.730, p = .009$), but was not significant when the CR was the wife ($b = .004, p = .987$). The effect of the CR's number of health conditions was not significant for couples in which either the husband or the wife was the CR ($b = -.100$ and $.314$, respectively). The effect of differences in ages was negative and significant for couples in which the husband was the CR ($b = -.112, p = .070, p = .003$), but positive and significant for those in which the wife was the CR ($b = .070, p = .036$).

DISCUSSION

This study expands prior literature on gender and caregiving by providing information for the first time about the circumstances under which gender is a critical context influencing the impact of other factors on the likelihood that the spouse is the sole provider of functional assistance received by his or her frail partner. The current findings identify both circumstances whose impact on whether husbands and wives provide all the IADL care received by their partner are similar and those that differ by gender. These findings complement earlier studies that focused on whether the caregiving roles of wives and husbands differ when other factors associated with caregiving are taken into account (e.g., Feld et al. 2006; Katz et al. 2000; Stoller and Cutler 1992; Wister and Dykstra 2000). This expanded view of the relevance of gender to caregiving is in keeping with calls to recognize that the centrality of gender varies across different contexts (Stoller 2002) and to study whether gender interacts with other factors in influencing the services used by caregivers (Kaye 2002). The findings facilitate the design of appropriate gender-sensitive services for elderly couples. They identify some circumstances which are more and less likely to be linked to the spouse being the only provider of IADL care, depending on whether the care recipient is a frail wife or a frail husband, as well as circumstances tied to the spouse's solo caregiving regardless of gender.

The value of the current findings for future theory, research, and practice is enhanced by several aspects of the study's design. The data are from a representative sample of community-dwelling married elders needing IADL assistance. They were used to address the spouse's role as the sole provider of IADL care, not simply who was the primary caregiver. The present design means that the findings are not confounded by the greater longevity and poorer functional health of elderly women than men or the higher probability of community dwelling elderly men than women being married (Arber and Cooper 1999). These possibly confounding gender differences are not adequately addressed in some prior research using representative samples of elderly men and women who provide care to their spouses (e.g., Arber and Ginn 1995). The present data also provide a broader context for understanding the role of gender in caregiving than do studies based on spousal caregivers to a partner with dementia, which may be a distinctive caregiving situation (e.g., Davidson et al. 2000). In addition, this study was able to consider the joint role of gender and many of the health, availability, and sociodemographic factors associated with the spouse's role as the sole IADL care provider. Its focus on previously understudied IADL assistance redresses an acknowledged gap in prior studies based on representative samples (e.g., National Alliance for Caregiving 1997). Finally, its theoretical underpinnings in the task-specific

model of who provides care and a gender perspective on caregiving supply frameworks for interpreting the present findings and suggesting future research.

The findings concerning the care recipient's number of IADL limitations and the couple's number of proximate daughters indicate that these variables showed different relationships to solo spousal IADL care for husbands and wives of the care recipients. Husbands were less likely to be sole caregivers when their care-receiving wives had several IADL impairments and when several daughters lived near the couple, but the likelihood of wives being solo caregivers was unrelated to these variables. Our finding concerning the relevance of daughters to whether husbands were solo caregivers is similar to evidence from research on the relevance of the number of adult children to the use of a paid helper as the primary caregiver among married men and women (Uhlenberg and Cheuk 2008). That study found a stronger association between number of adult children and the use of paid help among elderly wives receiving care than comparable husbands. Both present findings are consistent with a gender perspective on caregiving. That perspective recognizes multiple influences on a spouse's caregiving role, including gendered aspects of reactions by social institutions and informal social networks to caregiving husbands and wives, interactions between marital partners, and husbands' and wives' beliefs about masculinities and femininities (Calasanti 2005; Calasanti and Bowen 2006; Davidson et al. 2000; Rose and Bruce 1995). For example, caregiving husbands may receive greater recognition and praise because caregiving is not an expected role for husbands (Calasanti 2003; Stoller 1992). Additionally, when professionals, other family members, or wives themselves view caregiving as an extension of prior domestic labor, wives may see threats to their feminine identities if they do not provide all their husbands' IADL care even when the husbands' limitations are numerous or other helpers are available (Arksey and Glendinning 2007; Calasanti 2003). On the other hand, when husbands and others see caregiving as revising husbands' prior domestic responsibilities, or when they recognize that care situations may exceed husbands' resources (Calasanti 2003; Davidson et al. 2000; Russell 2001), husbands may not experience threats to their masculinities when others assist their wives with high levels of care needs or other caregivers are available. To test these interpretations, additional research is needed that directly assesses gendered behaviors, beliefs and expectations related to caregiving obligations and skills of husbands and wives. Such data from the frail member and the spouse or the couples' potential informal and formal sources of help were not available in the present study.

Directions for intervention are suggested by the findings about the IADL needs of the care recipients and the availability of daughters. Practitioners' assessments of a couple's need for outside support when working with a solo caregiving wife and her frail husband may benefit from identifying reasons for the absence of outside helpers. To what extent does this caregiving structure reflect her husband's, her daughter's, or a service provider's assumptions about the wife's ability to cope without additional support? To what extent is the wife's solo caregiving commensurate with her own assessment of her skills and the stressors she experiences? To what extent does solo caregiving stem from the wife's need to demonstrate her caregiving competence even when facing high assistance demands and daughters are available to help? Depending on answers to these questions, clinicians may need to be vigilant about possible threats to the solo caregiving wife's health that could interfere with her continuing as a caregiver (Tennstedt et al. 1989) and the adequacy of the care she provides to her frail husband (Calasanti and King 2007).

Practitioners working with couples in which the wife is not receiving all her IADL care from her husband might also find it useful to assess the reasons behind this network structure and the adequacy of the care received. To what extent does the presence of a caregiver other than the spouse when the care recipient has several IADL limitations or there are proximate

daughters reflect the husband's own views about caregiving? To what extent does this situation reflect gendered assumptions by his frail wife or their daughters about the husband as a caregiver? If the incorporation of outside helpers reflects the husband's view of the best way to get the caregiving job done, intervention may not be needed. If this results from the husband believing he lacks skills necessary to assist his wife on his own, referral to training programs that emphasize skill acquisition might be appropriate (Kaye 2002). If the care recipient wife's or daughters' assumptions about the appropriateness of the husband providing all the needed care differ from the husband's own views, clinicians may want to encourage a family discussion to resolve these different perspectives.

We also found that age differences between spouses and their frail partners affected the spouse's caregiving role for both husbands and wives receiving IADL care, but in opposite ways. These findings were unexpected. The difference between a spouse's and care recipient's ages had been included in the regression model primarily to control for the fact that the same value for a couple's summed ages could result from different combinations of spouse's and recipient's ages. It is, however, possible that the partners' ages reflected aspects of health not captured by available measures (Uhlenberg and Cheuk 2008). If that were the case, the difference in the age of the spouse and care recipient might indirectly be indexing the match between the ability of the spouse to provide help and the recipient's task needs (Messeri et al. 1993). Specifically, a better match would be more likely in couples in which the spouse was younger than the care recipient than in couples with the opposite age pattern. The finding that wives providing solo IADL care were more likely to be younger than their partners supports this interpretation; however, the finding that solo caregiving husbands were more likely to be older than their frail partners does not. Future research is needed to replicate our findings concerning age differences and to develop and test hypotheses about the possible reasons underlying these gender differences.

Equally important for future practice, theory, and research is the finding that gender did not moderate the effects of three aspects of the couple's health, each of which significantly reduced sole reliance on the spouse for IADL care (the care recipient's number of ADL limitations and whether the spouse had any IADL or any ADL limitations). For practitioners, these findings emphasize the importance of a family-oriented assessment that evaluates the frail partner's full set of care needs, as well as the spouse's health. These findings appear consistent with the Task-Specific Model of caregiving in showing that solo spouse caregiving is less likely when there is a poor fit between the time, energy, or skills of spousal caregivers and the required care tasks (Messeri et al. 1993). However, the TSM does not explain why the care recipient's number of IADL limitations was related to solo spousal caregiving only in couples in which the wife was receiving assistance. Nor does a gender perspective on caregiving predict the different findings concerning gender's moderating influence in relation to number of the frail partner's IADL and ADL needs. The full set of current findings concerning health of the couple point to the need for additional theoretical specifications of when gender is and is not likely to be a critical context for how other factors influence solo spousal care. Such theoretical advances are needed for future research to progress beyond the exploratory stage into hypothesis testing.

We also recognize several limitations in the study. The findings are limited to couples in which both partners are White or Black due to the small number of couples in other specific racial/ethnic groups. Because of the relatively small number of couples in which the spouse did not provide all the IADL care, we were unable to explore whether gender differentially influences the impact of factors tied to the spouse sharing care with other helpers and those linked to the spouse not providing any care. Nor could we determine if the moderating role of gender was similar for the spouse's role in IADL and ADL caregiver networks because the available sample of married elders receiving ADL help was too small for this type of

analysis³. Future research with larger samples of elderly couples could address both of these important issues. As the available data did not differentiate who provided help with each specific IADL limitation, possible gender differences in the spouse's role in helping with particular tasks could not be explored. The cross-sectional nature of the study meant that we could not examine whether gender influences how changes in the care needs of a frail partner or the health of the potential caregiving spouse are tied to the spouse's solo caregiving role.

Despite these caveats, this study highlights the importance of considering gender when trying to understand how older couples deal with the poor health of one or both members and suggests important directions for research and theory. Its findings can assist practitioners and family members who want to insure that these elderly couples receive the assistance they need. Receipt of outside help may reduce some negative psychological and physical effects of solo spousal caregiving. Identifying circumstances under which gender of the frail partner, and the spouse do and do not influence the likelihood of who provides assistance is critical to meet the needs of both members of elderly couples.

Biographies

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REFERENCES

- Adams PF, Lucas JW, Barnes PM. Summary health statistics for the U. S. population: National Health Interview Survey, 2006. National Center for Health Statistics. 2008; Series 10(Number 236) DHHS Publication 2008-1564.
- Allen SM, Goldscheider F, Ciambone DA, Desiree. Gender roles, marital intimacy, and nomination of spouse as primary caregiver. *The Gerontologist*. 1999; 39:150-158. [PubMed: 10224711]
- Arber S, Cooper H. Gender Differences in Health in Later Life: The New Paradox. *Social Science and Medicine*. 1999; 3:79-92.
- Arber, S.; Davidson, K.; Ginn, J. Changing Approaches to Gender and Later Life. In: Arber, S.; Davidson, K.; Ginn, J., editors. *Gender and Ageing: Changing Roles and Relationships*. Philadelphia, PA: Open University Press; 2003. p. 1-14.

³Only 188 couples getting ADL help were available from the full AHEAD sample when the same criteria were used as in the present study of 452 couples getting IADL help. The reduced sample size for ADL help was insufficient to carry out analyses comparable to those in the present paper involving the main effects of gender and the 16 other main effect variables and the possible interactions for each of these other variables with gender.

- Arber S, Ginn J. Gender Differences in Informal Caregiving. *Health and Social Care in the Community*. 1995; 3:9–31.
- Arksey H, Glendinning C. Choice in the context of informal care-giving. *Health and Social Care in the Community*. 2007; 15:165–175. [PubMed: 17286678]
- Burton LC, Zdaniuk B, Schulz R, Jackson S, Hirsch C. Transitions in Spousal Caregivers. *The Gerontologist*. 2003; 43:230–241. [PubMed: 12677080]
- Calasanti, T. Masculinities and Care Work in Old Age. In: Arber, S.; Davidson, K.; Ginn, J., editors. *Gender and Ageing: Changing Roles and Relationships*. Berkshire, England: Open University Press; 2003. p. 15-30.
- Calasanti T. Feminist Gerontology and Old Men. *Journal of Gerontology: Social Sciences*. 2005; 60B: 5–14. S30.
- Calasanti T, Bowen E. Spousal Caregiving and Crossing Gender Boundaries: Maintaining Gendered Identities. *Journal of Aging Studies*. 2006; 20:253–263.
- Calasanti T, King N. Taking ‘Women’s Work’ ‘Like a Man’: Husbands’ Experiences of Care Work. *The Gerontologist*. 2007; 47(4):516–527. [PubMed: 17766672]
- Ciambrone, D.; Allen, SM. Husbands Caring for Wives with Cancer. In: Kramer, BJ.; Thompson, EH., editors. *Men as Caregivers*. New York: Springer; 2002. p. 294-313.
- Davidson K, Arber S, Ginn J. Gendered Meanings of Care Work within Late Life Marital Relationships. *Canadian Journal on Aging*. 2000; 19:536–553.
- Dilworth-Anderson P, Williams SW, Cooper T. Family Caregiving to Elderly African Americans: Caregiver Types and Structures. *Journals of Gerontology: Social Sciences*. 1999; 54B:S237–S241.
- Feld S, Dunkle RE, Schroepfer T. Race/Ethnicity and Marital Status in IADL Caregiver Networks. *Research on Aging*. 2004; 26:531–558.
- Feld S, Dunkle RE, Schroepfer T, Shen H-W. Expansion of Elderly Couples’ IADL Caregiver Networks beyond the Marital Dyad. *International Journal of Aging and Human Development*. 2006; 63:95–113. [PubMed: 17137029]
- Fine M, Glendinning C. Dependence, Independence or Inter-Dependence? Revisiting the Concepts of ‘Care’ and ‘Dependency’. *Ageing & Society*. 2005; 25:601–621.
- Herzog AR, Wallace RB. Measures of Cognitive Functioning in the AHEAD Study. *Journal of Gerontology*. 1997; 52B(Special Issue):37–48.
- Jaccard, J. *Interaction Effects in Logistic Regression*. Thousand Oaks, CA: Sage; 2001.
- Johnson RJ, Wolinsky FD. The Structure of Health Status among Older Adults: Disease, Disability, Functional Limitation, and Perceived Health. *Journal of Health and Social Behavior*. 1993; 34:105–121. [PubMed: 8277124]
- Katz SJ, Kabeto M, Langa KM. Gender Disparities in the Receipt of Home Care for Elderly People with Disability in the United States. *Journal of the American Medical Association*. 2000; 284:3022–3027. [PubMed: 11122589]
- Kaye, LW. Service Utilization and Support Provision of Caregiving Men. In: Kramer, BJ.; Thompson, EH., Jr, editors. *Men as Caregivers*. New York: Springer; 2002. p. 359-378.
- Kramer, BJ. Men Caregivers: An Overview. In: Kramer, BJ.; Thompson, EH., Jr, editors. *Men as Caregivers*. New York: Springer; 2002. p. 3-19.
- Krisi T, Hervonen A, Jylha M. A Man’s Gotta Do What a Man’s Gotta Do: Husbands as Caregivers to their Demented Wives. *Journal of Aging Studies*. 2000; 14:153–170.
- Litwak, E.; Jessop, DJ.; Moulton, HJ. Optimal Use of Formal and Informal Systems over the Life Course. In: Kahana, E.; Biegel, DE.; Wykle, ML., editors. *Family Caregiving across the Lifespan*. Thousand Oaks, CA: Sage; 1994. p. 96-132.
- Messeri P, Silverstein M, Litwak E. Choosing Optimal Support Groups: A Review and Reformulation. *Journal of Health and Social Behavior*. 1993; 34:122–137. [PubMed: 8277125]
- National Alliance for Caregiving. Bethesda, MD: National Alliance for Caregiving; 1997. *Family Caregiving: Findings from a National Survey [Final report]*.
- O’Connor DL. Caring for a Memory-Impaired Spouse—A Gender-Sensitive Perspective. *Journal of Women and Aging*. 1995; 7:24–42.

- Okazaki S, Stanley S. Methodological issues in assessment research with ethnic minorities. *Psychological Assessment*. 1995; 7:367–375.
- Pinquart M, Sorensen S. Differences between caregivers and noncaregivers in psychological health and physical health: A meta-analysis. *Psychology and Aging*. 2003; 18:250–267. [PubMed: 12825775]
- Pinquart M, Sorensen S. Ethnic differences in stressors, resources, and psychological outcomes of family caregiving: A meta-analysis. *The Gerontologist*. 2005; 45:90–106. [PubMed: 15695420]
- Rose, H.; Bruce, E. Mutual Care but Differential Esteem: Caring between Older Couples. In: Arber, S.; Ginn, J., editors. *Connecting Gender and Ageing: A Sociological Approach*. Buckingham, UK: Open University Press; 1995. p. 114-128.
- Russell R. In *Sickness and in Health: A Qualitative Study of Elderly Men who Care for Wives with Dementia*. *Journal of Aging Studies*. 2001; 15:351–367.
- Scanlan JM, Vitaliano PP, Ochs H, Savage MV, Borso S. CD4 and CD8 counts are associated with interactions of gender and psychosocial stress. *Psychosomatic Medicine*. 1998; 60:644–653. [PubMed: 9773772]
- Scharlach AE, Giunta N, Chow JC, Lehning A. Racial and Ethnic Variations in Caregiver Service Use. *Journal of Aging and Health*. 2008; 20:326–346. [PubMed: 18332187]
- Soldo BJ, Hurd MD, Rodgers WL, Wallace RB. Asset and Health Dynamics among the Oldest Old: An Overview of the AHEAD Study. *Journal of Gerontology*. 1997; Series B, 52B(Special Issue): 1–20.
- Soldo BJ, Wolf DA, Agree EM. Family, Households, and Care Arrangements of Frail Older Women: A Structural Analysis. *Journal of Gerontology: Social Sciences*. 1990; 45:S238–S249.
- StataCorp.. *Statistical Software: Release 8.0*. College Station, TX: Stata Corporation; 2003.
- Stoller, EP. Gender Differences in the Experiences of Caregiving Spouses. In: Dwyer, J.; Coward, RT., editors. *Gender, Families, and Elder Care*. Newbury Park, CA: Sage; 1992. p. 49-64.
- Stoller, EP. Theoretical Perspectives on Caregiving Men. In: Kramer, BJ.; Thompson, EH., Jr, editors. *Men as Caregivers: Theory, Research, and Service Implications*. New York: Springer; 2002. p. 51-68.
- Stoller EP, Cutler SJ. The Impact of Gender on Configurations of Care among Elderly Couples. *Research on Aging*. 1992; 14:313–330.
- Stoller, E.; Miklowski, CS. Spouses Caring for Spouses: Untangling the Influences of Relationship and Gender. In: Szinovacz, ME.; Davey, A., editors. *Caregiving Contexts: Cultural, Familial, and Societal Implications*. New York: Springer; 2008. p. 115-131.
- Sullivan O. Changing Gender Practices within the Household: A Theoretical Perspective. *Gender and Society*. 2004; 18:207–222.
- Tennstedt S, McKinlay JB, Sullivan LM. Informal Care for Frail Elders: The Role of Secondary Caregivers. *The Gerontologist*. 1989; 29:677–683. [PubMed: 2513267]
- Thompson, EH, Jr. Gendered Caregiving of Husbands and Sons. In: Markson, EW.; Hollis-Sawyer, LA., editors. *Intersections of Aging: Readings in Social Gerontology*. Los Angeles, CA: Roxbury; 2000. p. 333-344.
- Thompson, EH, Jr. What's Unique about Men's Caregiving?. In: Kramer, BJ.; Thompson, EH., Jr, editors. *Men as Caregivers: Theory, Research, and Service Implications*. New York: Springer; 2002. p. 20-47.
- Thompson L. Conceptualizing Gender in Marriage: The Case of Marital Care. *Journal of Marriage and the Family*. 1993; 55:557–569.
- Uhlenberg, P.; Cheuk, M. Demographic Change and the Future of Informal Caregiving. In: Szinovacz, ME.; Davey, A., editors. *Caregiving Contexts: Cultural, Familial, and Societal Implications*. New York: Springer; 2008. p. 9-33.
- White-Means S, Rubin RM. Is there Equity in the Home Health Care Market? Understanding Racial Patterns in the Use of Formal Home Health Care. *Journal of Gerontology: Social Sciences*. 2004; 59B:S220–S229.
- Wister A, Dykstra PA. Formal Assistance among Dutch Older Adults: An Examination of the Gendered Nature of Marital History. *Canadian Journal of Aging*. 2000; 19:508–535.

- Wolf DA, Freedman V, Soldo BJ. The Division of Family Labor: Care for Elderly Parents. *The Journals of Gerontology*. 1997; Series B, 52B(Special Issue):102–109. [PubMed: 9215362]
- Wolff JL, Kasper JD. Caregivers of Frail Elders: Updating a National Profile. *The Gerontologist*. 2006; 46:344–356. [PubMed: 16731873]

Table 1

Descriptions of Main Effect Independent Variables and their Sample Characteristics

Variable	Description (Sample Characteristics)
Gender of the CR	0 = Husband was CR (56.6%). 1 = Wife was CR (43.4 %).
Health	
CR no. of IADLs	IADL limitations = not being able to prepare a hot meal, shop for groceries, make a telephone call or take medication without help; or not doing the task because of health reasons (Range: 1–4; M: 2.0; SD: 1.1).
CR no. of ADLs	ADL limitations = elder gets help, does not do, or has difficulty in dressing, bathing, eating, or toileting; or elder gets help, does not do, uses equipment, or has difficulty walking or getting in and out of bed (Range: 0–6; M: 2.3; SD: 2.0).
CR no. of health conditions ^a	Health conditions = diabetes, heart condition, stroke, lung disease, cancer, arthritis, psychiatric problems, urine control, and legal blindness or very poor eyesight. Count truncated at 5 or more (Range: 0–5; M: 1.8; SD: 1.3).
CR cognitive problems	0 = No serious cognitive problems (74.3%). 1 = CR gave < half correct replies to phone version of Mini Mental Status Examination (Herzog and Wallace 1997); or proxy indicated symptoms of cognitive problems (wandering, getting lost, hearing voices, or unable to leave alone) (25.7%).
CR proxy	0 = CR data provided by the CR (66.1%). 1 = Proxy provided CR data (33.9%).
Spouse IADLs ^b	0 = No IADL limitations, as defined above for CR (87.2%). 1 = At least 1 IADL limitation (12.8%).
Spouse ADLs ^b	0 = No ADL limitations, as defined above for CR (77.2%). 1 = At least 1 ADL limitation (22.8%).
Available Informal Help	
Spouse employed ^b	0 = Spouse not employed outside the house (90.0%). 1 = Spouse employed outside the house (10.0%).
Couple's no. of daughters ^a	No. living with or < 10 miles away from couple, truncated at 3 or more (Range: 0–3; M: 0.5; SD: 0.8).
Couple's no. of sons	No., as defined above for daughters (Range: 0–3; M: 0.5; SD: 0.7).
Available Formal Help	
CR Medicaid	0 = No Medicaid coverage (92.0%). 1 = CR health care covered by Medicaid (8.0%).
Couple's poverty ratio ^a	Ratio of household income last year to U.S. poverty figure (1992/1993) for a given household size and composition, rounded to 1 decimal and truncated at 13.0 or more (Range: 0.0–13.0; M: 2.6; SD: 2.2).
Sociodemographic Characteristics	
Couple's race/ethnicity	0 = Both non-Hispanic White (84.3%). 1 = Both non-Hispanic Black/African American (15.7%).
Couple's years married ^c	No. of years couple married to each other (Range: 1–76; M: 48.1; SD: 14.7).
Couple's summed ages	Spouse + CR age in years (Range: 127–187; M: 155.1; SD: 11.3)
Spouse's age – CR's age	Arithmetic difference in ages (Range: –22 – +16; M: –2.3; SD: 5.4).

Note. CR = care recipient. M = Mean. SD = Standard Deviation. IADL = Instrumental Activities of Daily Living. ADL = Activities of Daily Living.

^aVariable was truncated because of highly skewed distribution.

^bVariable was dichotomized because very few spouses had this characteristic.

^cBased on CR's report, except that the spouse's report was used when the CR's data were missing and when the report of a CR with severe cognitive problems differed from the spouse's report by five or more years.

Table 2

Bivariate Differences in Characteristics of Couples in which the Spouse Is and Is Not the Sole IADL Caregiver (within Gender of the Care Recipient)

Variable	CR Husbands (n = 256)		CR Wives (n = 196)	
	Solo Spouse Caregiver (82.0%)	No Solo Spouse Caregiver (18.0%)	Solo Spouse Caregiver (74.0%)	No Solo Caregivers (26.0%)
CR no. of IADLs	2.0(1.1)	2.2(1.0)	1.6(0.8)	2.6(1.3) ***
CR no. of ADLs	2.1(2.0)	2.8(1.9) +	2.2(1.9)	3.4(2.3) ***
CR no. of health conditions	1.8(1.3)	2.0(1.4)	1.7(1.2)	1.9(1.4)
CR cognitive problems ^a	28.6%	34.8%	15.2%	35.3% ***
CR proxy ^a	39.5%	41.3%	20.7%	41.2% **
Spouse IADLs ^a	8.6%	34.8% ***	2.8%	39.2% ***
Spouse ADLs ^a	18.6%	43.5% ***	17.2%	37.3% **
Spouse employed ^a	9.5%	6.5%	11.0%	11.8%
Couple's no. daughters	0.6(0.8)	0.7(0.7)	0.4(0.7)	0.7(0.6) **
Couple's no. sons	0.5(0.7)	0.5(0.8)	0.4(0.7)	0.7(0.8) *
CR Medicaid ^a	8.6%	17.4% +	2.8%	11.8%
Couple's poverty ratio	2.5(1.9)	1.9(1.9) +	3.0(2.7)	2.3(2.1)
Couple's race/ethnicity ^b	14.3%	28.3% +	10.3%	25.5% **
Couple's years married	46.8(15.0)	49.5(15.9)	48.1(13.8)	52.1(14.0) *
Couple's summed ages	153.6(11.2)	157.0(13.6)	155.3(10.3)	158.6(11.8) +
Spouse's age – CR's age	-4.9(5.0)	-3.1(3.7) *	0.9(4.7)	-0.2(5.0)

Note. Entries are means (and standard deviations) unless noted otherwise. Percentages shown for dummy variables are for the value coded 1. All entries are based on raw data. All significance tests take design effects into account by using the Stata software. Significance tests for means are based on t-tests and for percentages are based on Chi-Square tests. CR = care recipient. IADL = Instrumental Activities of Daily Living. ADL = Activities of Daily Living.

^a 0 = No, 1 = Yes.

^b 0 = Non-Hispanic White, 1 = Non-Hispanic Black/ African American.

+ $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3

Logistic Regression Models Predicting the Likelihood of the Spouse Being the Sole IADL Caregiver (N = 452)

Variable	Model 1		Model 2	
	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>
CR no. of IADLs	-.235	.091	.144	.489
CR no. of ADLs	-.190	.037	-.214	.031
CR no. of health conditions	.048	.739	-.100	.552
CR cognitive problems ^a	.252	.482	.120	.760
CR proxy ^a	.055	.833	.188	.508
Spouse IADLs ^a	-1.625	.001	1.713	.001
Spouse ADLs ^a	-1.090	.003	1.080	.003
Spouse employed ^a	-.733	.070	-.597	.208
Couple's no. daughters	-.269	.084	.004	.987
Couple's no. sons	-.202	.283	-.211	.276
CR Medicaid ^a	-.511	.437	-.673	.317
Couple's poverty ratio	.066	.487	.101	.296
Couple's race/ethnicity ^b	-.734	.046	-.601	.133
Couple's years married	.002	.843	.006	.570
Couple's summed ages	-.016	.307	-.014	.386
Spouse's age – CR's age	-.019	.478	-.112	.003
Gender of the CR ^c	-.468	.154	-.431	.131
Gender × CR no. IADLs			-.807	.007
Gender × CR no. conditions			.414	.057
Gender × Couple's no. daughters			-.733	.067
Gender × (Spouse's age – CR's age)			.182	.001
Constant	5.570	.053	2.110	.000

Note. Table entries for *b* are unstandardized regression coefficients. All non-dichotomous variables were centered at the total sample mean. CR = care recipient. IADL = Instrumental Activities of Daily Living. ADL = Activities of Daily Living. The overall F value for Model 1 = 3.30 ($p = .003$). The overall F value for Model 2 = 3.18 ($p = .005$). For the variables included in interaction terms with Gender (CR number of IADLs, CR number of health conditions, Couple's number of proximate daughters, and Spouse's age – CR's age) the interpretation of the *b* coefficients differ for Model 1 and Model 2 (Jaccard, 2001). In Model 1, *b* represents the slope of each of these variables on the likelihood of solo spousal caregiving for all couples. In Model 2 *b* represents the slope of the relationship between each of these variables and the likelihood of solo spousal caregiving among couples for whom gender was coded 0, i.e., couples in which the husband was the CR.

^a0 = No, 1 = Yes.

^b0 = Non-Hispanic White, 1 = Non-Hispanic Black/African American.

^c0 = CR husband, 1 = CR wife.

Table 4

Logistic Regression Coefficients Estimating the Conditional Effects on the Likelihood of the Spouse Being the sole IADL Caregiver for Variables Moderated by Gender of the Care Recipient (N = 452)

Variable	Gender			
	CR husbands ^a		CR wives ^b	
	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>
CR no. of IADLs	.144	.489	-.662	.003
CR no. of health conditions	-.100	.552	.314	.098
Couple's no. of daughters	.004	.987	-.730	.009
Spouse's age – CR's age	-.112	.003	.070	.036

Note. CR = care recipient. Entries for *b* are unstandardized regression coefficients. All variables were centered at the total sample mean. IADL = Instrumental Activities of Daily Living.

^a Coefficients estimate the slope of the relationship between the likelihood of solo spouse caregiving and each listed variable among couples with a husband CR; data duplicate those shown in Model 2 of Table 3 where gender was coded as husband CR = 0; wife CR = 1.

^b Coefficients estimate the slope of the relationship between the likelihood of solo spouse caregiving and each listed variable among couples with a wife CR; data obtained by refitting Model 2 of Table 3 with gender recoded as wife CR = 0, husband CR = 1.