

Perceptions and Implications of Received Spousal Care: Evidence From the Caregiver Health Effects Study

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The experiences of older care recipients have received far less theoretical and empirical attention than those of their family caregivers. In this study of 91 care recipients, the authors assessed perceptions of the amount, timing, and manner of spousal assistance; the amount of strain experienced from receiving care; and psychological well-being. Although female care recipients were more likely to report dissatisfaction with the manner in which assistance was provided, there were few gender differences in perceptions of care overall. In a stringent test of the hypothesis that perceived quality of spousal care affects recipient well-being, the authors found that poorer quality of care was related to increased depressive symptoms and a decreased sense of mastery 1 year later. These longitudinal effects were independent of the recipient's physical disability, marital quality, and care-receiving strain as well as the caregiver's well-being. These findings argue for a comprehensive assessment of the care-receiving experience that includes both care-recipient and caregiver perspectives.

Physical illness in late life detracts from older adults' psychological well-being, which may in turn compromise their ability to recover from or manage illness (e.g., Berkman et al., 1986; Ory & DeFriese, 1998; Wrosch, Schulz, & Heckhausen, 2002; Zeiss, Lewinsohn, Rohde, & Seeley, 1996). The majority of ill older adults depend on assistance from family in order to perform various daily activities, and the benefits of this assistance include less paid help and delayed institutionalization. However, older individuals also sometimes report negative reactions to assistance from family, and such negative reactions have been linked to their poorer psychological well-being over time (see reviews by Martire & Schulz, 2001, and by Newsom, 1999). To date, there has been

little attention paid to factors that may fuel negative reactions to family care, including the care recipient's perceptions in regard to the quality of received assistance. Furthermore, it is not clear whether such care-recipient perceptions erode psychological well-being beyond the effects of other important correlates of diminished well-being in disabled older adults (e.g., health status, marital satisfaction; Martire & Schulz, 2001). In the present study we used data from a longitudinal study of older marital dyads, the Caregiver Health Effects Study (Schulz et al., 1997), to closely examine perceptions and psychological implications of received spousal care.

Perhaps it is not surprising that negative interactions with members of the social network, such as hostile or critical behaviors on the part of family or friends, are harmful to older care recipients (e.g., Krause & Jay, 1991; Rook, 1984; Stephens, Kinney, Norris, & Ritchie, 1987; Williamson, Shaffer, & The Family Relationships in Late Life Project, 2001). However, even well-intentioned actions of family members can backfire and have negative effects on the care recipient. For example, family members sometimes offer unwanted advice, become emotionally overinvolved in the older adult's health concerns, and jump in to provide help before it is needed (Burg & Seeman, 1994; Coyne, Wortman, & Lehman, 1988). To date, the effects of receiving care have been paid far less attention than the effects of providing care to an ill older adult, and thus there is much to learn about the extent to which care is or is not well-received and why.

Empirical interest in reactions to assistance, from either acquaintances or strangers, is not new. The experimental social psychology literature has offered various theoretical frameworks to explain these reactions, the most popular being the threat to self-esteem model (Fisher, Nadler, & Whitcher-Alagna, 1982).

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This model proposes that one important determinant of negative reactions to assistance is the extent to which characteristics of the assistance fit the recipient's needs. Based in part on this framework, recent models of the care-receiving process (Martire & Schulz, 2001; Newsom, 1999) posit that negative emotional, cognitive, and physiological reactions of the recipient occur when specific characteristics of received assistance—such as amount, manner, and timing—are perceived by the recipient as inappropriate or unsatisfactory. Such perceptions of poor-quality care, as well as the short-term negative reactions to care, are proposed to harm recipient psychological well-being over time (Martire & Schulz, 2001; Newsom, 1999).

Consistent with these models of the care-receiving process, a handful of recent studies have focused on older adults' negative emotional reactions in response to assistance from others. In this line of research, investigators have operationalized such reactions in terms of the extent to which help from a family member made the recipient feel less positive about him- or herself (Clark & Stephens, 1996), less competent or in control over assistance received from the spouse (Martire, Stephens, Druley, & Wojno, 2002), or more emotionally or physically strained (Newsom & Schulz, 1998). Most of this work has focused on older adults and their spousal caregiver because the spouse is the main source of assistance for those who are married. Similar to the broader literature on late-life social support and well-being (e.g., George, Blazer, Hughes, & Fowler, 1989; Oxman, Berkman, Kasl, Freeman, & Barrett, 1992), these studies have shown that negative reactions to care are related to the recipient's greater concurrent depressive symptomatology (Clark & Stephens, 1996) and to increased depressive symptomatology over 1 year (Martire et al., 2002; Newsom & Schulz, 1998).

Less empirical work has examined the care recipient's perceptions of the quality of received family care. Researchers interested in the consequences of overprotection and loss of autonomy in late life have assessed recipient satisfaction with amount of assistance or the manner in which it was delivered (e.g., Kasser & Ryan, 1999; Krause, 1995; Thomas, 1993; Thompson & Sobolew-Shubin, 1993) and have shown that older individuals who perceive that they receive unnecessary help are also more depressed (e.g., Thompson & Sobolew-Shubin, 1993). Most of this research has focused on specific populations such as stroke patients and nursing home residents and has examined whether recipients think that they (a) receive more or less assistance than desired or (b) are provided with assistance in a way that enhances or detracts from their independence or volition. Thus, relatively little is known about recipient perceptions of quality along more than one dimension of care. A more comprehensive assessment of perceived quality of care may provide researchers with greater insight into the reasons behind occasional negative reactions to care. Furthermore, determining whether perceived quality of care impacts recipient well-being would significantly advance researchers' understanding of the caregiving process as viewed from the recipient's perspective.

It has been suggested, although largely unexplored, that unhelpful assistance from others may affect not only affective indicators of recipient psychological well-being (e.g., depressive symptomatology) but also indicators such as a sense of mastery or control (e.g., Antonucci & Jackson, 1987; Bandura, 1986, 1997; Thoits, 1984). Specifically, individuals who receive more unsatisfactory

assistance with daily tasks may feel a lesser sense of mastery in coping with life's challenges, especially if the assistance is provided by a close intimate such as the spouse. Evidence that a sense of mastery or control is an important outcome of social interactions and acts of support (e.g., Krause, 1987; Pearlin, Lieberman, Menaghan, & Mullan, 1981) suggests that decreased global mastery deserves further examination as a negative outcome of poor-quality family care.

Assessing the effects of perceived quality of care on recipient psychological well-being requires that researchers take into account the impact of other factors that are known correlates of well-being in late life or that are likely to overlap with perceived quality of care. Two factors clearly meet these criteria: the care recipient's level of physical disability (see review by Lenze et al., 2001; Schulz, Heckhausen, & O'Brien, 1994) and the quality of the care recipient's relationship with his or her spouse (e.g., Levenson, Carstensen, & Gottman, 1993; Williamson, Shaffer, & Schulz, 1998). In addition, research on older couples suggests a third factor that is important to consider: the impact of the spousal caregiver's well-being. The findings of several studies have illustrated the positive concurrent and prospective associations between spouses' levels of depressive symptomatology (e.g., Bookwala & Schulz, 1996; Tower & Kasl, 1996; Townsend, Miller, & Guo, 2001). Interactional models of depression (e.g., Joiner & Coyne, 1999) posit that social contexts, particularly marriage, result in this transmission of emotional states and that the association between spouses' depressive symptomatology is due in part to the spouses' close physical proximity and the subsequent likelihood that they pay attention to and are affected by each other's mood. A positive relationship also has been demonstrated between spouses' attitudes and personality factors (e.g., Feng & Baker, 1994), suggesting that older couples may have similar levels of mastery in part due to a history of shared life events.

In summary, there has been limited empirical work aimed at determining whether perceived quality of family care affects recipient well-being independently of other personal and relationship factors. A detailed evaluation of care-recipient perceptions in regard to care is a promising and unexplored area of empirical inquiry into the care-receiving process. This approach also provides the opportunity to examine potential gender differences in perceived quality of care. As others have noted (e.g., Penning & Strain, 1994), older men and women may differ in what they consider to be effective assistance and thus there may be interesting gender differences in reports of the adequacy of amount, manner, and timing of assistance. Although there is evidence that older women have larger networks of support than older men (Antonucci & Akiyama, 1987), it is not known whether there are gender differences in perceived quality of care.

The present study focused on a population-based sample of older adults receiving care from their spouse, the Caregiver Health Effects Study (CHES; Schulz et al., 1997). The first aim of this study was to assess the perceived quality of received spousal care in older men and women. We assessed the quality of the amount, manner, and timing of spousal care by using a new measure developed specifically for physically impaired older adults, and we examined gender differences in perceived quality of care. The second aim was to test the hypothesis that poorer quality of care would be concurrently related to greater negative reactions to care (i.e., more emotional and physical strain from receiving care) and

poorer psychological well-being (i.e., greater depressive symptomatology and less global mastery). The purpose of this aim was to establish that there were significant relationships among our key constructs, as a preliminary step toward pursuing the third aim of the study. The third aim was to determine whether poorer quality of care is associated with decrements in psychological well-being for the care recipient, after taking into account the effects of important correlates of well-being in late life. Specifically, we predicted that poorer quality of spousal care would be related to increased depressive symptomatology and decreased global mastery for the care recipient over time, beyond the effects of care-receiving strain, physical disability, and marital quality, as well as the spousal caregiver's well-being (depressive symptomatology or global mastery). This study extends the findings of previous investigations by using a population-based sample of both older men and women to provide the most comprehensive assessment to date of perceived quality of care. In addition, the present study provides the opportunity to examine relationships proposed in models of the care-receiving process and provides a broader and more stringent test of the hypothesis that quality of spousal care affects recipient well-being (Martire & Schulz, 2001; Newsom, 1999).

Method

Participants

Participants in this study consisted of 91 older couples enrolled in the CHES, which is ancillary to the Cardiovascular Health Study (CHS). The CHS is a large, multisite population-based study of 5,888 adults age 65 years and older who were identified from Medicare eligibility lists of the Health Care Financing Administration and recruited from four U.S. communities: Forsyth County, NC; Washington County, MD; Sacramento County, CA; and Pittsburgh (Allegheny County), PA. The primary purpose of the CHS is to determine the risk factors for, and consequences of, cardiovascular disease in older adults. CHS participants have been interviewed on a yearly basis since 1989. Additional information regarding the CHS can be found in an article by Fried et al. (1991).

All individuals in the CHS sample who were married and living with their spouse were eligible for the CHES, a longitudinal study of older spousal pairs that includes caregivers and care recipients. *Care recipients* were defined as individuals who received assistance from their spouse with at least one personal activity of daily living (ADL) or with at least one instrumental activity of daily living (IADL) because of health problems or problems with confusion. Three hundred ninety-five caregivers were recruited for the baseline interview of the CHES, and spouses of the caregivers were also invited to participate in the study. The majority of these 395 care recipients (84%; $n = 333$) agreed to participate. Beginning in 1993, CHES participants completed annual, in-person, structured interviews. In this article, we focus on data collected in Wave 4 (baseline in the present study; 1997–1998) and Wave 5 (1998–1999) because Wave 4 was the first time point at which care recipients were asked about their perceptions of the quality of spousal care (see Newsom & Schulz, 1998, for earlier findings on care recipients in the CHES).

At each study time point, data collection for care recipients was dependent on caregiver and care-recipient availability and willingness to participate as well as on the caregiver's report of the care recipient's disability level (i.e., if the caregiver did not report that their spouse experienced difficulty with ADLs or IADLs, then that individual was not considered to be a potential care recipient and was not interviewed). A total of 91 care recipients received spousal assistance with at least one ADL or IADL as a result of disability at Wave 4 and thus provided interview data on perceived quality of spousal care. The primary reasons for fewer recipient interviews

at Wave 4 were death of the care recipient or caregiver since Wave 1 (48%), no recipient disability (12%), and recipient refusal or inability (e.g., illness, cognitive impairment) to be interviewed (10%).

At Wave 5, 62 of the 91 care recipients from Wave 4 were re-interviewed. The primary reasons for fewer recipient interviews at Wave 5 were death of the care recipient or caregiver (25%), recipient refusal or inability to be interviewed (21%), and no recipient disability as reported by the caregiver (18%). A comparison of the 62 care recipients at Wave 5 with the 29 who were not interviewed at Wave 5 on demographic and key variables indicated that nonparticipants reported higher quality of care, $t(89) = 2.77, p = .01$, and fewer depressive symptoms, $t(89) = 2.05, p < .05$, at Wave 4 than participants. These differences may reflect that the participation of care recipients depended for the most part on the spouse's availability and willingness to participate and on the spouse's report of the recipient's disability level.

In regard to demographic characteristics of the sample ($N = 91$), the average age of care recipients in this study was 72.8. Ninety-five percent of the participants were White; 4.7% were Black; and 0.6% were of other ethnic or racial backgrounds. Approximately two thirds of the care recipients were men ($n = 56$; 62%). On average, participants had 13.9 years of education. Care-recipient reports of the primary cause of physical disability indicated that arthritis, stroke, and heart disease were most common. The average level of cognitive functioning of care recipients was normal for their age and education level, as indicated by the Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975) ($M = 27.00, SD = 3.24$; range = 18.00–30.00).

Measures

Physical disability. At Wave 4 (baseline) care recipients were asked whether they had difficulty with each of six ADLs (e.g., bathing, dressing) and six IADLs (e.g., housework, shopping; Lawton & Brody, 1969). Responses were summed, resulting in a score with a range of 0–12. The average disability level for care recipients was 2.97 ($SD = 2.60$).

Marital quality. The care recipient's marital quality was assessed with a modified version of the Dyadic Relationship Scale of the Family Assessment Measure (Skinner, Steinhauer, & Santa-Barbara, 1983; Williamson & Schulz, 1990). Care-recipient marital quality was not assessed in the CHES after Wave 3, and thus data from that time point are used in the present study. Care recipients indicated the extent to which they agreed with 14 statements (e.g., "This person is available when I want to talk to him/her"; "This person and I aren't close to each other," reverse-scored). These items were rated on a scale from 1 (*strongly agree*) to 4 (*strongly disagree*), and each individual's score was averaged. The average marital-quality score was 3.06 ($SD = 0.38$; range = 2.00–3.93), and Cronbach's alpha for this measure was .85.

Care-receiving strain. In the CHES, negative reactions to receipt of care are operationalized in terms of the amount of emotional strain and physical strain experienced as a result of receiving spousal assistance with each of 12 ADLs or IADLs. Recipients rated the amount of strain on a scale with endpoints 1 (*no strain*), 2 (*some strain*), and 3 (*a lot of strain*). Count variables were created for participants to reflect the number of activities with which they experienced at least some strain, and a single score was created by averaging the responses to the emotional and physical strain questions. The average level of care-receiving strain at Wave 4 (baseline) was 0.80 ($SD = 1.56$; range = 0.00–8.00), and 37% of the recipients reported emotional or physical strain in regard to assistance with at least one ADL or IADL.

Perceived quality of spousal care. At Wave 4, care recipients were asked to indicate the extent to which they agreed with eight statements in regard to the assistance received from their spouse, by using a scale that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores reflect poorer quality of care. These items were adapted from items created by Newsom, Adams, Rahim, Mowry, and Rogers (1998). Two items

assessed amount of assistance, four items pertained to manner of assistance, and two items assessed timing of assistance (see Table 1 for wording of items). Each care-recipient score was averaged ($M = 2.16$; $SD = 0.58$; range = 1.00–4.25). The internal consistency of these eight items was high, with a Cronbach's alpha of .76.

Depressive symptoms. The Center for Epidemiologic Studies—Depression scale (CES-D; Radloff, 1977) was used to assess depressive symptomatology for both the care recipient and the caregiver. The CES-D is a 20-item scale that asks participants to indicate how frequently they experienced certain symptoms or feelings during the past week, on a 4-point scale ranging from 1 (*rarely or none of the time*) to 4 (*most or all of the time*). Scores can range from 0.00 to 60.00, with higher scores reflecting greater symptomatology. For care recipients, the average level of depressive symptomatology at Wave 4 was 12.07 ($SD = 9.16$; range = 0.00–43.00), and at Wave 5 it was 12.64 ($SD = 8.83$; range = 0.00–38.00). Cronbach's alpha for the care-recipient measures was .87 at Wave 4 and .86 at Wave 5. For the caregivers, the average level of depressive symptomatology at Wave 4 was 6.86 ($SD = 7.24$; range = 0.00–35.00), and at Wave 5 it was 8.71 ($SD = 7.78$; range = 0.00–36.00). Cronbach's alpha was .87 at Wave 4 and .86 at Wave 5.

Mastery. Mastery was assessed with Pearlin and Schooler's (1978) measure of global mastery, for both the care recipient and the caregiver. Participants were asked to indicate the extent to which they agreed with seven items such as "I can do just about anything I really set my mind to do" and "I have little control over the things that happen to me (reverse-scored)." Items were rated on a 5-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*), and scores were averaged for each participant. For care recipients, the average level of mastery at Wave 4 was 3.10 ($SD = 0.67$; range = 2.00–5.00), and at Wave 5 it was 2.96 ($SD = 0.63$; range = 1.71–4.86). Cronbach's alpha for care-recipient mastery was .71 at Wave 4 and .69 at Wave 5. For caregivers, the average level of mastery at Wave 4 was 3.58 ($SD = 0.56$; range = 2.14–4.71), and at Wave 5 it was 3.44 ($SD = 0.61$; range = 2.29–4.86). Cronbach's alpha for spouse mastery was .66 at Wave 4 and .72 at Wave 5.

Analysis Plan

Gender differences in perceived quality of care were examined with t tests. The first hypothesis (Aim 2), that poorer quality of spousal care would be concurrently related to greater care-receiving strain and poorer psychological well-being (i.e., depressive symptoms and less mastery), was tested by using data from the 91 care recipients who were interviewed at Wave 4 (baseline). Bivariate correlations were examined and a Bonferroni correction method was applied in the interpretation of these three correlation coefficients (i.e., $p < .01$).

The second hypothesis (Aim 3), that poorer quality of care would be related to increased depressive symptomatology and decreased mastery for the care recipient 1 year later (i.e., Wave 5), was tested with hierarchical regression analyses. Separate regression analyses were conducted for each of the two well-being outcomes. In the first step of the analyses, eight control variables were included in the regression equation. Specifically, the recipient's score on the outcome measure at baseline was included in order to operationalize change in depressive symptomatology and mastery. In addition, three sociodemographic variables (i.e., age, gender, and race) and four conceptual covariates (i.e., caregiver outcome score at baseline, recipient physical disability, marital quality, and care-receiving strain) were entered into the regression equations. At the second and final step of these analyses, perceived quality of care was entered in the equation to determine whether this factor was a unique and significant predictor of increased depressive symptoms and decreased mastery after accounting for the covariates.

Results

Perceived Quality of Care—Gender Differences and Correlates

Table 1 presents the eight items that were created to assess quality of spousal care. These items tap into the amount (Items 2 and 7), manner (Items 1, 3, 5, and 8), and timing (Items 4 and 6) of assistance received from the spouse. Average scores for female

Table 1
Descriptive Information for Quality of Care Items, by Gender ($N = 91$)

Item ^a	Women ($n = 56$)		Men ($n = 35$)		% endorsing	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Female	Male
1. Sometimes my spouse does not do it the right way.	2.95	0.96	2.40	0.95**	41	17
2. My spouse helps me more often than I would like to be helped.	2.64	0.96	2.77	1.17	27	29
3. Sometimes when my spouse tries to help me, I would prefer that he/she did not try to help at all.	2.50	1.14	2.20	0.90	25	9
4. When my spouse tries to help me do something, it is often at the wrong time.	2.14	0.86	2.00	0.84	14	6
5. Sometimes my spouse hurts me or makes me feel physically uncomfortable.	1.89	0.98	2.03	0.95	11	9
6. When I need help with something, my spouse is reluctant to help out.	1.80	0.94	1.66	0.84	11	3
7. My spouse does not help me as often as I would like to be helped.	1.82	1.01	1.79	0.84	11	3
8. When I receive help from my spouse, he/she is always courteous. ^b	1.84	0.76	1.94	0.91	89	86

Note. Items were rated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Values in the last two columns represent percentage of female and male care recipients indicating *agree* or *strongly agree*.

^a In regard to help given by spouse. ^b Reverse-scored prior to analysis.

** Significant mean difference between male and female care recipients, $p < .01$.

Table 2
Zero-Order Correlations Among Study Variables at Wave 4

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age	—	-.31**	-.14	.17	.15	-.08	-.08	-.06	-.12	-.12	-.03
2. Gender		—	-.15	-.12	-.18	-.09	.08	.03	-.12	.07	.22*
3. Race			—	-.10	-.14	-.13	-.03	.02	.14	-.01	-.04
4. Physical disability				—	-.02	.39**	.03	.23*	-.03	-.32**	-.06
5. Marital quality					—	-.04	-.17	-.26*	-.02	.14	-.02
6. Care-receiving strain						—	.14	.24*	.04	-.37**	-.17
7. Perceived quality of care							—	.33***	.23*	-.30**	-.35***
8. Care-recipient depressive symptoms								—	.48***	-.44***	-.30**
9. Caregiver depressive symptoms									—	-.17	-.58***
10. Care-recipient mastery										—	.13
11. Caregiver mastery											—

Note. $N = 91$, Wave 4. Gender was coded as 0 (male) or 1 (female). Race was coded as 0 (White) or 1 (other).

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

and male care recipients are presented for each item. As shown in Table 1, there was one interesting and significant gender difference in the endorsement of these items. Female care recipients agreed more strongly than male care recipients with the statement that sometimes their spouse does not provide assistance in the right way or manner ($p < .01$). Male and female care recipients equally endorsed that they received a greater amount of help from the spouse than desired. Consistent with the literature on chronic illness and social support, care recipients also highly endorsed the statement that their spouse is courteous when providing assistance with activities (Item 8). There was no significant difference between male and female care recipients in total perceived quality of care.

Table 2 displays the zero-order correlations among all study variables at Wave 4. Poorer perceived quality of care was positively but nonsignificantly related to care-receiving strain at the bivariate level ($r = .14$, $p > .05$). As predicted, poorer perceived quality of care was significantly related to greater care-recipient depressive symptomatology and less care-recipient mastery ($r = .33$, $p < .001$, and $r = -.30$, $p < .01$, respectively). It is interesting to note that poorer perceived quality of care also was significantly related to greater caregiver depressive symptomatology and less caregiver mastery ($r = .23$, $p < .05$, and $r = -.35$, $p < .001$, respectively). Consistent with previous studies, there was a strong positive correlation between care-recipient and caregiver depressive symptoms ($r = .48$, $p < .001$). A positive but nonsignificant relationship was found between care-recipient and caregiver mastery ($r = .13$, $p > .05$). In support of our argument that spousal caregiver well-being is an important predictor of change in care-recipient well-being, significant relationships were observed between caregiver depressive symptoms at Wave 4 and care-recipient depressive symptoms at Wave 5 ($r = .32$, $p = .01$) as well as between caregiver mastery at Wave 4 and care-recipient mastery at Wave 5 ($r = .28$, $p < .05$; not shown in table).

Implications of Perceived Quality of Care for Recipient Well-Being

The results of the hierarchical regression analyses for psychological well-being are displayed in Table 3. This table displays unstandardized coefficients and their standard errors, standardized

coefficients (β), and the amount of variance in well-being accounted for by the set of control variables and by perceived quality of care. The coefficients represent the effects of the predictors on each well-being measure at the last step of each analysis. In these analyses, a total of eight variables were included (well-being outcome at baseline, sociodemographics, and conceptual covariates) in order to conduct a stringent test of the hypothesis that perceived quality of care is related to poorer psychological well-being for the care recipient over time.

Our hypothesis was strongly supported for both well-being outcomes. As shown on the left side of Table 3, poorer quality of care (i.e., amount, manner, and timing) was associated with more depressive symptoms in the care recipient 1 year later ($\beta = .25$, $\Delta R^2 = .05$, $p < .01$). This predicted effect was found even after controlling for baseline depressive symptoms for both care recipient and caregiver; sociodemographic factors; and care-recipient disability, marital quality, and strain from receiving care. Within the set of covariates included in this multivariate analysis, greater baseline depressive symptoms, higher levels of disability, and less marital quality were related to more depressive symptoms at follow-up. As shown in the right side of this table, findings for the outcome of care-recipient mastery also supported our hypothesis. That is, care recipients who were more dissatisfied with the amount, manner, and timing of assistance from their spouse reported a lesser sense of mastery over events in life 1 year later ($\beta = -.20$, $\Delta R^2 = .03$, $p < .05$). This longitudinal effect on recipient well-being was observed beyond the effects of their own baseline mastery and that of their spousal caregiver; sociodemographic characteristics; and their level of disability, marital quality, and care-receiving strain. Greater baseline mastery and lower levels of disability were the covariates found to be related to increased mastery in this analysis.¹

¹ We also conducted a regression analysis to determine whether care-recipient mastery played a mediating role in the relationship between quality of care and care-recipient depressive symptoms and did not find evidence to support this type of relationship. That is, the coefficient representing the effect of quality of care on depressive symptoms did not change from $\beta = .25$ when mastery was entered into the analysis at a last step.

Table 3
Effects of Quality of Care on Change in Recipient Well-Being

Predictor	Depressive symptoms at 1-year follow-up				Mastery at 1-year follow-up			
	<i>B</i>	<i>SE B</i>	β	ΔR^2	<i>B</i>	<i>SE B</i>	β	ΔR^2
Control variable ^a				.56***				.55**
CR outcome at baseline	0.53	0.11	.55***		0.53	0.09	.60***	
CG outcome at baseline	-0.09	0.13	-.08		0.18	0.11	.17	
CR physical disability	0.99	0.43	.23*		-0.08	0.03	-.24*	
CR marital quality	-5.76	2.37	-.22*		0.01	0.17	.00	
Care-receiving strain	-0.24	0.55	-.04		0.07	0.04	.17	
Perceived quality of care	3.65	1.33	.25**	.05**	-0.21	0.10	-.20*	.03*
Total R^2				.61***				.58***

Note. $N = 62$. CR = care recipient; CG = caregiver.

^a Analyses also control for care-recipient age, gender, and race.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Discussion

Empirical data on older adults' perceptions of family care are critical for a more complete understanding of how illness and impairment in late life impact a person's well-being. This line of research also is important because responses to assistance are, in turn, likely to affect the amount and quality of future care from family members. Although the social psychological and rehabilitation literatures have focused on the experiences of individuals who receive help from others, family caregiving research has for the most part focused solely on the caregiver and his or her experiences. The present study represents one of the closest examinations to date of the older care recipient's perspective on the caregiving process.

The first aim of this study was to assess perceptions of the amount, manner, and timing of spousal care and to examine gender differences in such perceptions. In contrast to previous studies, we took a broad, recipient-based approach to examine the quality of spousal care and focused on both male and female care recipients with different chronic illnesses and who live in four different geographical areas of the United States. We did not find that men and women had highly divergent views in regard to the quality of assistance received from their spouse, consistent with other studies demonstrating more similarities than differences in the support received by older men versus women (e.g., Antonucci & Akiyama, 1987). However, we did find that female care recipients were significantly less satisfied than male recipients with the manner in which assistance was provided. One possible explanation for this finding is that men in this cohort are not as skilled as women in providing functional assistance. This gender difference in satisfaction with manner of assistance has implications for the development of psychosocial interventions for caregiver-care-recipient dyads, including our own education and support intervention for older couples who are attempting to manage disabling arthritis in one partner (Martire & Keefe, 2001; Martire et al., 2003). Specifically, this finding suggests that the strategy of teaching spousal caregivers how to provide assistance that best fits an individual's preferences may be enhanced by a discussion of potential differences between husbands and wives in such preferences.

Although the current study found only one difference between male and female care recipients in perceptions of spousal care, our

findings are based on a small sample and the majority of the care recipients were men. Recent theoretical frameworks aimed at explaining gender differences in the exchange of support and in the effects of marriage on health suggest that women are more responsive than men to experiences within their marital relationships (Helgeson, 1994; Kiecolt-Glaser & Newton, 2001). Such gender differences provide a strong conceptual argument for further exploration of the extent to which women are more sensitive to characteristics of offered assistance and are more impacted by poor-quality care than are men.

The second aim of this study was to examine concurrent relationships between perceived quality of care, care-receiving strain, and recipient well-being. Consistent with our models and with previous research (e.g., Kasser & Ryan, 1999; Thompson & Sobolew-Shubin, 1993), we found in cross-sectional analyses that poorer quality of spousal care was related to more depressive symptoms and less global mastery for the care recipient. Unexpectedly, we did not find that poorer quality of care was significantly related to greater care-receiving strain. One explanation for this null finding is that strain experienced as the result of receiving care from others also may stem from factors such as unease in being dependent on others. Future research may reveal the factors that contribute to negative reactions as well as perceived quality of care and may also identify the factors that explain or mediate the relationship between unsatisfactory care and recipient well-being (Martire & Schulz, 2001; Newsom, 1999).

Our third and most pressing aim was to examine the prospective implications of perceived quality of care for recipient well-being after taking into account the impact of other personal and relationship correlates of late-life well-being. As predicted, we found that care recipients who perceived poorer quality of care from their spouse were more depressed and had a lesser sense of mastery in life 1 year later. These findings illustrate that quality of family care is an important factor in the adaptation to health declines in older adulthood. It is important to note that these effects were observed even after taking into account other factors that are known to be associated with increased depression and decreased mastery but that have not been fully considered in previous research. Specifically, these longitudinal effects on recipient well-being were independent of the care recipient's sociodemographic characteristics,

physical disability, marital quality, and strain from receiving care, as well as the caregiver's well-being. Our finding for mastery is especially notable in that it complements previous research demonstrating that supportive and unsupportive actions are related to domain-specific mastery, self-efficacy, or perceived control for support recipients (Krause & Borawski-Clark, 1994; Manne & Glassman, 2000; Martire, Stephens, & Townsend, 1998; McAvay, Seeman, & Rodin, 1996). Specifically, this finding suggests that the implications of unhelpful family care for recipients' sense of mastery extend beyond the domains of illness, coping, and social roles, to color their more global belief that they can manage life's challenges.

As suggested by other research findings (e.g., Tower & Kasl, 1996; Townsend et al., 2001), we found that it was important to take into account the caregiver's well-being in our prospective analyses of recipient well-being. Although caregiver baseline depressive symptoms and mastery were not significant predictors of care-recipient well-being at follow-up in the multivariate models (i.e., when seven other conceptual and empirical control variables were included), these measures were significantly related at the bivariate level. This finding confirms that research studies focused on the well-being of older married adults should consider the spouse's well-being, especially in cases in which the older adult is ill and receiving care from the spouse.

Another interesting finding in this study was that greater depressive symptoms and less mastery in the caregiver were strongly related to poorer quality of care as reported by the recipient. This finding complements other recent research showing that caregivers who have more depressive symptoms also report more potentially harmful behaviors toward their spouse (Williamson et al., 2001) and that caregivers with less mastery perceive that the care recipient is more impaired (Bookwala & Schulz, 1998). We believe that synthesizing such findings from caregiver research with the findings of the present study illustrates the potentially dynamic, cyclical nature of the caregiving-care-receiving process. That is, a process seems to occur whereby the family caregiver's poor psychological health negatively affects the quality of care that he or she provides and the care recipient's negative perceptions of such care erode his or her own psychological health. In turn, such negative effects on the care recipient are likely to further compromise his or her physical health and self-care abilities, which subsequently erodes the caregiver's psychological health and ability to provide satisfactory care. At a more microscopic level of caregiver-care-recipient interaction, the care recipient's outwardly negative reactions to unsatisfactory assistance also may further detract from the quality of future care. Thus, we believe that our findings have important implications that extend beyond the care recipient to the caregiver-care-recipient dyad and that deserve further investigation.

Previous studies on older care recipients have focused on either negative reactions to care or satisfaction with the amount or manner of received assistance. In this study we assessed both negative reactions (i.e., care-receiving strain) and perceptions of care and found that the latter was more strongly related to poorer psychological well-being in multivariate analysis. These findings extend our previous research (Martire et al., 2002; Newsom & Schulz, 1998) as well as the work of Pagel, Erdly, and Becker (1987), who showed that satisfaction with support from the overall social network predicted depression even after controlling for the

level of upset created by network support. Although there may be numerous explanations for the impact of perceived quality of care on well-being beyond the effects of care-receiving strain, one possibility is that the quality-of-care measure provided more in-depth information and greater variability and thus was a better predictor of well-being.

Despite the strengths of our study, its limitations should be noted. First, our findings are based on a relatively small sample of care recipients and need to be replicated with larger samples. Second, care recipients in this study generally did not report that they received a lot of poor-quality care from their spouse. Others have noted that there is a common selection bias in couples research that results in samples of highly maritally satisfied individuals (e.g., Levenson et al., 1993). Given the possibility of such a sample bias in the present study, it is difficult to know whether care recipients in this study had more satisfying marriages than other care recipients or were unwilling to acknowledge unhelpful assistance from the family member on whom they depend for help. Third, care-recipient marital quality, which was treated as a control variable in this study, was assessed 1 year prior to other factors in our model. It is unknown to what extent this may have affected our findings and, more specifically, whether perceived quality of care would have been a significant predictor of change in care-recipient well-being after controlling for concurrent marital quality. However, the nonsignificant association between the marital-quality measure and quality of care suggests that this possibility is not highly likely. Better measurement of this construct will be critical for future research that is more centrally focused on the role of marital quality in the caregiving-care-receiving process than the present study. Previous studies suggest that relationship quality may be an important factor in caregiver burden as well as in care provision and satisfaction with received care. For example, our research (e.g., Williamson & Schulz, 1990) has shown that caregivers reporting a close relationship with the care recipient are less distressed by caregiving.

The present study also did not include care recipients with cognitive impairment and thus it is not known whether our findings would apply to such a population. Although there are obvious challenges in obtaining valid and reliable information from cognitively impaired older people in regard to the care they receive and their level of distress, even individuals with mild to moderate cognitive impairment are often capable of articulating their feelings and concerns (Cotrell & Schulz, 1993; Spencer, Tompkins, & Schulz, 1997). Observation of couples while they help each other with tasks (e.g., Romano et al., 1991) may also be a useful method of data collection in this regard, as well as for the purpose of determining whether care-recipient perceptions of poor-quality care are consistent with actual support behaviors. In order for research in this area to significantly move forward, alternative strategies such as these may need to be used in order to assess the care-receiving process in a wider range of care recipients.

In summary, the findings of this study represent a significant advance in understanding the receipt of family care, by moving beyond an examination of the effects of amount of assistance received (e.g., Liang, Krause, & Bennett, 2001; Penning & Strain, 1994; Silverstein, Chen, & Heller, 1996) to perceptions of the quality of received care. Assessment of care recipients' perceptions, as well as how assistance made them feel about themselves, produces two complementary pieces of information about the

care-receiving process. Given recent evidence that negative reactions to assistance are related to poorer self-care behaviors (Martire et al., 2002), it may be useful in future research to examine the effects of care-recipient perceptions of care on this and other physical health indicators, such as medication adherence and reports of health symptoms.

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