The Interplay of Work and Caregiving: Relationships Between Role Satisfaction, Role Involvement, and Caregivers’ Well-being

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This study applied theory from the general work and family literature to the dual roles of work and caregiving, in order to examine whether level of satisfaction and time involvement in each of these roles moderate the effects of stress in the other role on well-being. Respondents were 118 employed women who were providing care to an impaired parent or parent-in-law. As predicted, greater time involvement in work was found to buffer women from the negative effects of caregiving stress. Satisfaction with caregiving and satisfaction with work were directly associated with better well-being, beyond the effects of stress in both roles. However, women who experienced high levels of caregiving stress and who were highly satisfied with work were especially vulnerable to depression. These findings illustrate the importance of examining the effects of caregiving stress on well-being in the context of work-related experiences.

DATA from a national survey of informal caregivers indicate that adult daughters and daughters-in-law constitute an important group of family members to provide care to impaired older adults (Stone, Cafferata, and Sangi, 1987). Many of these women have additional family responsibilities, and almost half (44%) are also employed (Stone, Cafferata, and Sangi, 1987). The continuing growth in the number of women in the labor force (U.S. Department of Labor, Women’s Bureau, 1994), along with the large number of older adults needing long-term assistance now and in the future, has made the consequences of combining work and caregiving an increasing concern to researchers and policymakers (Stone and Short, 1990).

An emerging literature indicates that employment can be beneficial to the well-being of caregivers to an older impaired parent. Employed caregivers often experience less caregiver strain and better mental health than those who are not employed (Giele, Mutschler, and Orodenker, 1987; Miller, 1989; Skaff and Pearl, 1992). However, most studies of employed caregivers have been limited because they focus solely on occupancy of the employment role and not on experiences in that role. Little is known about how experiences in these two roles combine to affect caregivers’ well-being. The primary purpose of the present study was to determine how these two roles interact by examining specific aspects of one role that may condition the effects on well-being of stress in the other role.

The caregiver and employee roles each have the potential to be stressful. It is well established that providing care to an impaired older adult can produce a substantial amount of stress for family caregivers (e.g., Zarit, 1989). The stressfulness of caregiving most commonly stems from dealing with the care-recipient’s cognitive and behavioral problems, and providing assistance with activities of daily living (Haley et al., 1987; Kinney and Stephens, 1989; Stephens, Franks, and Townsend, 1994). Although being employed seems to be generally beneficial for women’s health (Baruch, Biener, and Barnett, 1987; Repetti, Matthews, and Waldron, 1989; Ross and Mirowsky, 1995), this role can also be stressful. Occupational stressors that have been shown to have the greatest negative impact on women’s well-being are a heavy workload (e.g., Barnett, Davidson, and Marshall, 1991), low job control or little decision-making authority, and monotonous work (Repetti, Matthews, and Waldron, 1989). Therefore, it is possible that employed caregivers are in two stressful roles simultaneously.

In addition to the stressors experienced in these two roles, the positive aspects of caregiving and work are increasingly acknowledged. Family members can derive many rewards from caregiving, such as comfort in knowing that one’s parent is well cared for and an increased sense of mastery from meeting the challenges of caregiving (e.g., Lawton et al., 1989; Miller, 1989; Motenko, 1989; Scharlach, 1994). Rewards experienced in caregiving have been shown to be related to better well-being for caregivers even when stress in that role and in two other roles (mother and wife) is considered (Stephens, Franks, and Townsend, 1994). Likewise, the literature on employment and women’s health indicates that work has many potential benefits that are related to enhanced well-being, including the receipt of social support from co-workers (e.g., Hibbard and Pope, 1985) and increased self-esteem (e.g., Pugliesi, 1989).

Research has shown that experiences in one role can often spill over to affect experiences in another role, both positively and negatively. These spillover effects may be particularly relevant for the domains of work and family (Bolger et al., 1989; Bromet, Dew, and Parkinson, 1990). Specifically, investigations of women’s multiple roles have demonstrated that experiences in family and work roles not
only have direct effects on women's health (e.g., Barnett and Baruch, 1985; Baruch and Barnett, 1986), but that experiences in each domain can moderate the effects of experiences in the other. Positive experiences in marital and parental roles have been shown to buffer the negative effects of low job quality on women's psychological well-being (Barnett, 1994), and rewarding experiences on the job have been shown to buffer the negative effects of family stress on women's psychological well-being (Barnett and Marshall, 1991; Barnett, Marshall, and Sayer, 1992). The evidence for role spillover between the domains of work and family suggests that this theory might be usefully applied to the roles of work and caregiving. That is, it is possible that the satisfying aspects of the caregiver role could help to offset the effects of stress at work, and that the satisfying aspects of work could help to offset the effects of caregiving stress.

In addition to role satisfaction, the time that a woman is involved in a given role has been shown to affect her well-being. Prior research reveals that not only is employment generally beneficial for the well-being of both men and women, but also that full-time employment (35 or more hours per week) is particularly beneficial (Aleshires, Frerichs, and Clark, 1981) and is associated with less depression than part-time employment (Gore and Mangione, 1983; Wethington and Kessler, 1989). It has been suggested that the advantage of full-time employment may be due to a greater opportunity to achieve the full benefits that this role has to offer, including higher pay, more fringe benefits, and greater opportunities for advancement (Herold and Waldron, 1985; Vecchio, 1984). For employed caregivers, time spent at work may also provide them with respite from stress at home, including stress from providing care to an impaired relative (Brody, 1990). Caregivers who work more than 20 hours per week have been shown to experience less stress from caregiving than caregivers who work less than 20 hours per week (Enright and Friss, 1987). However, these findings may have been due to the fact that the caregivers working more hours had less impaired care-recipients, provided less care, and received more paid assistance with caregiving.

In contrast to the beneficial aspects of time spent in the employment role, there is evidence that greater involvement in the caregiver role may be detrimental to women's health. Prior research on employed caregivers indicates that a greater number of hours spent caregiving is associated with poorer well-being, including increased stress from caregiving (Neal et al., 1993) and increased role strain (Scharlach and Fredrikson, 1994). Other research has found that the combination of providing more hours of help and occupying other roles (e.g., employee, wife, and parent) is associated with increased caregiver burden (Stoller and Fugliesi, 1989). Given the findings regarding the direct effects of involvement in caregiving and employment on well-being, it is possible that involvement in one role could moderate the effects of stress in the other role.

The objective of the present study was to examine the effects of role satisfaction and role involvement on the well-being (physical health, depression, and positive affect) of women who simultaneously occupy the roles of employee and caregiver to an impaired parent or parent-in-law. There were three hypotheses concerning role satisfaction, and the first two focused on moderating effects. Based on evidence that positive experiences in the family (or work) domain buffer the negative effects of stress in the work (or family) domain (e.g., Barnett, 1994; Barnett and Marshall, 1991), it was predicted that the effects of caregiving stress on well-being would be buffered by satisfaction experienced at work and that the effects of work stress on well-being would be buffered by satisfaction in the caregiver role. That is, it was posited that stress in each of these roles would be associated with poorer well-being at low levels of satisfaction in the other role but not at high levels of satisfaction in the other role. It was further predicted that, in addition to its moderating effects, satisfaction in a role (either work or caregiving) would be related to better well-being.

Three additional hypotheses focused on role involvement (amount of time spent in a role). Based on evidence that employed caregivers benefit from working a greater number of hours but not from providing more hours of care to an impaired relative (e.g., Enright and Friss, 1987; Neal et al., 1993), it was predicted that the effects of caregiving stress on well-being would be buffered by greater work involvement (i.e., working more hours), and that the effects of work stress on well-being would be exacerbated by greater involvement in the caregiver role (i.e., providing more hours of care). That is, it was posited that stress in the caregiving role would be related to poorer well-being at low work hours but not at high work hours, and that stress in the work role would be related to poorer well-being at high caregiving hours but not at low caregiving hours. It was further predicted that greater involvement in a role (either work or caregiving) would be directly related to well-being. That is, based on evidence that women who work full-time experience better well-being but that caregivers who provide more hours of care experience poorer well-being (e.g., Neal et al., 1993; Wethington and Kessler, 1989), involvement in the work role was hypothesized to have beneficial effects on well-being, whereas involvement in the caregiver role was predicted to have negative effects on well-being.

METHOD

Respondents

Respondents were 118 women who were caregivers to an ill or disabled parent or parent-in-law, and who were employed at least 10 hours per week. To be eligible for this study, a woman had to assist her parent with at least one of the following: personal care, shopping, preparing meals, or providing supervision to the parent due to a memory problem. In addition, the impaired parent had to be at least 60 years of age and reside in a noninstitutional setting.

Respondents were recruited through newspaper solicitations, discharge records at a local rehabilitation hospital, Alzheimer's Association chapters, and national newsletters published specifically for caregivers. Eligible caregivers who agreed to participate were mailed a questionnaire...
booklet. A total of 168 questionnaires were mailed to eligible respondents, and 127 questionnaires (76%) were returned; 9 of these questionnaires contained unusable or incomplete data. Of the 118 respondents available for analysis, 107 were daughters and 11 were daughters-in-law.

The average age of the respondents was 48.5 years (SD = 7.7; range = 30–67). Approximately 91 percent of respondents were Caucasian. Respondents had received an average of 15.3 years of education (SD = 2.8; range = 12–23). Approximately 73 percent of the respondents were married, and they had been married for an average of 23.6 years (SD = 10.1; range = 2–44). Less than half (44%) of the respondents had at least one child living at home, and the average age of the youngest child at home was 16.1 years. The median level of the respondents’ yearly household income was between $50,000 and $60,000. Slightly less than half (44%) shared a residence with the parent or parent-in-law.

The average age of the impaired parent or parent-in-law was 79.7 years (SD = 7.1; range = 61–94). Most of the parents (in-law) were female (85.6%). Parents (in-law) had required assistance for an average of 6.0 years (SD = 6.52; range = .25–40) and respondents had been providing care for an average of 5.7 years (SD = 6.22; range = .25–40). Respondents indicated that 93.2 percent of the parents (in-law) required at least some help with shopping for groceries or doing their own housework; 74.6 percent required help with preparing meals, and 55.9 percent needed assistance with bathing. Additionally, 51.7 percent of the parents (in-law) needed assistance with understanding simple instructions, and 43.2 percent needed assistance with accurately reporting the day of the week. Of the 12 instrumental tasks examined in this study, caregivers were assisting their parent (in-law) with an average of 8.8. More than half (61.9%) of the respondents reported receiving assistance with caregiving from other family members or friends, and 52.5 percent reported using paid help with caregiving.

 Instruments

Two general principles were used in designing the role stress and role satisfaction measures. First, two sources of information were used in identifying important experiences in these two roles: empirical investigations using measures that were developed from ethnographic interviews with individuals who occupied these roles, and reviews of ethnographic interviews with caregivers. Ethnographic interviews (i.e., those using open-ended questions) were particularly useful for designing measures of role stress and role satisfaction because they reflect the perspectives of individuals who are experiencing both problematic and rewarding events in these roles. Second, nonoverlapping items were chosen for the stress and satisfaction measures within each role in an attempt to ensure that these measures reflected two dimensions of role-related experiences that were distinct and not simply polar opposites of each other.

Role stress. — The measure of caregiving stress consisted of caregivers’ appraisals of 21 tasks often performed by adult child caregivers in response to the care-recipient’s physical and cognitive impairment (e.g., arranging services for your parent) (Albert, 1991; Stephens and Kinney, 1989). For each task, the respondent was asked to indicate if she had performed that task in the past month and, if so, how stressful that had been, using a 4-point scale (ranging from 1 “not at all” to 4 “very”). Those tasks that caregivers reported not having performed were scored as “0” (did not happen). Our objective was to create a caregiving stress measure which excluded events that a respondent had not experienced in the past month, had never experienced, or that were irrelevant to her situation. We were concerned only with the appraisal of events that had occurred. Thus, a caregiving stress score representing the average amount of stress experienced was calculated by summing the ratings across items and dividing by the number of items endorsed as having occurred in the past month, the same procedure as used in our earlier research (e.g., Stephens, Franks, and Townsend, 1994). The mean caregiving stress score was 2.41 (SD = .54; range = 1–3.94). The mean number of items endorsed as having occurred in the past month was 15.9 (SD = 4.47; range = 2–21). Cronbach’s alpha for caregiving stress was .88.

Work stress was assessed with seven items pertaining to common stressors experienced by women at work (e.g., Having more work than you can handle). These items were taken from previous research (Barnett and Baruch, 1985; Kandel, Davies, and Raveis, 1985; Pearlin and Schooler, 1978; Veroff, Douvan, and Kulka, 1981). For each item, the respondent was asked to indicate if that circumstance applied to her work situation and, if so, how stressful it had been, using a 4-point scale (ranging from 1 “not at all” to 4 “very”). Items that caregivers reported as not applying to their work situation were scored as “0” (does not apply). A work stress score representing the average amount of stress experienced was calculated by summing the ratings across items and dividing by the number of items endorsed as being applicable. The mean work stress score was 2.29 (SD = .80; range = 1–4). The mean number of items endorsed as having occurred in the past month was 5.0 (SD = 2.00; range = 1–7). Cronbach’s alpha for this measure was .77.

Role satisfaction. — Caregiving satisfaction was assessed using five items from a caregiving satisfaction scale (e.g., Helping your parent makes you feel closer to him/her) (Lawton et al., 1989). Each item was rated on a 4-point scale ranging from “strongly disagree” to “strongly agree,” and scores were created by summing across the ratings for all items. The mean level of caregiving satisfaction was 15.26 (SD = 3.24; range = 5–20) and Cronbach’s alpha was .84.

Work satisfaction was assessed using eight items derived from previous studies (e.g., Your job is enjoyable; Barnett and Baruch, 1985; Moos, 1986; Repetti, 1987; Veroff, Douvan, and Kulka, 1981). Each item was rated on a 4-point scale from “strongly disagree” to “strongly agree,” and scores were created by summing across the ratings for all items. The mean level of work satisfaction was 22.35 (SD = 4.41; range = 8–32). Cronbach’s alpha for this measure was .80.

Role involvement. — Role involvement was assessed as the number of hours per week spent carrying out the responsibilities of a role. Respondents were asked to indicate the
number of hours per week that they spent assisting their parent and the number of hours per week that they were employed. The average number of hours per week spent caregiving was 22.78 (SD = 25.68; range = 2-128). The average number of work hours per week was 36.59 (SD = 9.12; range = 10-62). Almost three-quarters (70%) of the respondents worked 35 or more hours per week (full-time).

Physical health. — The physical health of respondents was assessed using the sum of three items, each rated on a 4-point scale. Respondents were asked to rate: (1) their current health (ranging from 1 “poor” to 4 “excellent”); (2) the extent to which their daily activities are limited by their health (ranging from 1 “a great deal” to 4 “not at all”); and (3) their satisfaction with their health (ranging from 1 “not at all satisfied” to 4 “completely satisfied”) (House, 1986). The mean physical health score was 9.72 (SD = 2.00; range = 4-12), and the alpha coefficient for this measure was .85.

Depression. — The Center for Epidemiologic Studies—Depression scale (CES—D; Radloff, 1977) was used to assess depressive symptoms. The CES—D is a 20-item scale that asks respondents to indicate how frequently they experienced certain symptoms or feelings during the past week. Scores can range from 0 to 60, with higher scores reflecting greater symptomatology. A cutoff score of 16 on the CES—D is indicative of a risk for clinical depression. Approximately 44 percent of the present sample scored at or above this cutoff. The average depression score was 16.83 (SD = 12.79; range 0–51), and the alpha coefficient for this measure was .94.

Positive affect. — The positive affect subscale of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, and Tellegen, 1988) was used to assess positive emotions. Items in this subscale ask the respondent to rate the experience of 10 positive feelings and emotions experienced during the past week on a 5-point scale (ranging from 1 “very slightly or not at all” to 5 “extremely”). The average positive affect score was 32.44 (SD = 8.03; range = 14-49). Cronbach’s alpha for this measure was .91.

Analysis Plan
For each index of well-being a hierarchical multiple regression analysis was used to test for the moderating effects of satisfaction (or involvement) in one role on the relationship between stress in the other role and well-being. In all analyses, stress in the moderating role was controlled. This strategy was used to increase confidence in the interpretation that any observed moderation effects are due to role satisfaction or role involvement and are not due to differential levels of stress for those respondents at high and low levels of the moderator. The sample size of approximately 118 respondents provided adequate power (.80) to detect an interaction effect for a model in which the effect accounted for 5 percent of the variance and the total amount of variance accounted for was approximately 25 percent (Jaccard, Turrisi, and Wan, 1990).

For the analyses examining work involvement as a potential moderator, three additional control variables were used: caregiving hours, parent (in-law)’s level of cognitive and functional impairment, and hours of paid assistance with caregiving. These control variables were included in order to ensure that any observed moderation effects of work hours would not be due to such factors (e.g., fewer hours of care). These factors were shown by other research to distinguish between caregivers who worked a high number of hours per week and caregivers who worked a low number of hours per week (Enright and Friss, 1987).

In order to determine whether any other control variables should be included in the regression equations, bivariate correlation coefficients between 18 demographic or caregiving-related variables (e.g., age, income, marital status, number of children living at home, the age of the parent (in-law), the cognitive and functional impairment of the parent (in-law), duration of caregiving, whether the caregiver and parent (in-law) shared a household, and the predictor, moderator, and criterion variables were examined. A variable would be chosen as a control variable for a given equation if it correlated > .30 (Reichardt, 1979) with the criterion variable and either the predictor or moderator variable. None of the correlation coefficients met these criteria. Based on these findings, no additional control variables were included in the regression analyses.

In each regression analysis, control variable(s) were entered first (including stress in the moderating role), followed by stress in the other role, role satisfaction or role involvement, and the interaction of stress with satisfaction or involvement. For example, when examining the moderating effects of work satisfaction on the relationship between caregiving stress and well-being, the control variable of work stress entered the equation first, caregiving stress entered the equation second, work satisfaction entered third, and the interaction of caregiving stress with work satisfaction entered the equation last. Significant standardized regression coefficients (β) for moderators were indicative of main effects of these variables (average simple effects; Aiken and West, 1991). Moderating effects were indicated by interaction terms that added a significant amount of variance to a model past the main effects (Baron and Kenny, 1986; Cohen and Cohen, 1983).

In order to reduce the potential for multicollinearity between the interaction term and the component parts of this term, centered scores for stress and role satisfaction or involvement were used in these analyses (Cohen and Cohen, 1983; Jaccard, Turrisi, and Wan, 1990). That is, deviation scores were created for each respondent by subtracting the sample mean for that scale from the individual’s original score. In addition, the decomposition of significant interaction effects was carried out by examining the slope of well-being on stress at high and low levels of the moderator (one standard deviation above and below the mean, respectively), using unstandardized regression coefficients (Aiken and West, 1991; Jaccard, Turrisi, and Wan, 1990).

Results
Role Stress and Role Satisfaction
The percentages of respondents endorsing the stress and satisfaction items within the caregiving and work roles are
These stressors involved dealing with the parent's moods and irritating behaviors, and making decisions about and arranging services for the parent. Table 1 also shows that out of the five caregiving satisfaction items, all were endorsed by at least two-thirds of the respondents. The top two satisfactions related to vicariously experiencing the parent's pleasure and meeting family obligations.

Table 2 shows the rank order of the seven work stress items and eight work satisfaction items. The two most frequently endorsed work stressors pertained to the amount of work a woman had to do. Almost half of the respondents (49.2%) reported being unable to have control over things they do at work as a stressor. Having an enjoyable job was the most frequently endorsed work satisfaction, followed by satisfaction with amount of support from closest coworker. This condition provides a more interpretable interaction term (Baron and Kenny, 1986). In addition, the satisfaction and hours variables within roles were not significantly related to each other, indicating that these potential moderators were assessing different constructs.

### Role Satisfaction and Well-Being

The findings regarding the analyses of role satisfaction as a potential moderator of role stress on well-being are shown in Table 4. This table displays effects that were detected at the last step of each analysis, for each index of well-being. The top half of the table displays analyses of caregiving satisfaction as a potential buffer of work stress, and the bottom half displays the analyses of work satisfaction as a potential buffer of caregiving stress. As stated previously, significant regression coefficients for the moderator variables indicate main effects of these variables; moderating effects are indicated by interaction terms that add a significant amount of variance to a model past the main effects. Results indicated that all models for role satisfaction were significant at or beyond the .01 level, and the total amount of variance in well-being accounted for ranged from 13 to 35 percent.

### Main effects.

Role satisfaction emerged as a significant main effect in five out of six analyses. The regression coefficients indicated that satisfaction in the caregiver role was associated with better physical health and more positive affect, and satisfaction in the work role was significantly related to better physical health, less depression, and

#### Table 2. Rank Order of Stressors and Satisfactions Identified in the Work Role

<table>
<thead>
<tr>
<th>Percentage Endorsing as At Least “Slightly” Stressful</th>
<th>Percentage Endorsing “Agree” or “Strongly Agree”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work Stressors</strong></td>
<td></td>
</tr>
<tr>
<td>Having more work than you can handle</td>
<td>85.6%</td>
</tr>
<tr>
<td>Having too much to do at work</td>
<td>74.6</td>
</tr>
<tr>
<td>Job lack of security or stability</td>
<td>49.2</td>
</tr>
<tr>
<td>Job lacking variety or seeming monotonous</td>
<td>39.1</td>
</tr>
<tr>
<td>Working in an unpleasant or unsafe environment</td>
<td>29.7</td>
</tr>
<tr>
<td>Job not matching your interest or skills</td>
<td>28.0</td>
</tr>
<tr>
<td><strong>Work Satisfactions</strong></td>
<td></td>
</tr>
<tr>
<td>Job is enjoyable</td>
<td>85.6%</td>
</tr>
<tr>
<td>Satisfied with amount of support from closest co-worker</td>
<td>81.3</td>
</tr>
<tr>
<td>Rules and procedures do not interfere with doing a good job</td>
<td>70.4</td>
</tr>
<tr>
<td>Being paid a reasonable amount for the work you do</td>
<td>69.5</td>
</tr>
<tr>
<td>Work assignments are clear</td>
<td>67.8</td>
</tr>
<tr>
<td>Satisfied with amount of support from supervisor</td>
<td>64.4</td>
</tr>
<tr>
<td>Satisfied with chances for promotion</td>
<td>60.2</td>
</tr>
<tr>
<td>Good benefits</td>
<td>31.3</td>
</tr>
</tbody>
</table>
more positive affect. These effects emerged independent of caregiving stress, work stress, and the interaction terms.

Moderating effects. — No significant buffering effects were found for caregiving satisfaction on the relationship between work stress and well-being. That is, satisfaction in the caregiver role did not interact significantly with work stress for any index of well-being. In addition, no significant interactions were found between work satisfaction and caregiving stress in the analyses of physical health and positive affect. However, a significant interaction effect was found between work satisfaction and caregiving stress in the analysis of depression. This interaction term accounted for an additional 2.22 percent of the variance past the main effects and effects of the control variable.

A decomposition analysis was conducted for this interaction to determine the significance of the slope of depression on caregiving stress at low work satisfaction (one standard deviation below the mean, equivalent to a role satisfaction score of 17.94) and high work satisfaction (one standard deviation above the mean, equivalent to a role satisfaction score of 26.76). The slope of depression on caregiving stress was significantly different from zero at both low work satisfaction (β = 5.56, p < .05) and high work satisfaction (β = 12.58, p < .05). The sign of these significant coefficients indicated that higher caregiving stress was related to a greater level of depression for women reporting low or high work satisfaction, with a much stronger relationship between caregiving stress and depression for those women reporting high work satisfaction. This finding was not consistent with that predicted by our hypothesis, which stated that a significant slope of caregiving stress on depression would be found only for those women who were less satisfied at work. As Figure 1 shows, a significant relationship between caregiving stress and well-being was found at both low and high levels of work satisfaction, and caregiving stress had a much greater impact on depression for those women with high work satisfaction. This finding was not consistent with that predicted by our hypothesis, which stated that a significant slope of caregiving stress on depression would be found only for those women who were less satisfied at work. As Figure 1 shows, a significant relationship between caregiving stress and well-being was found at both low and high levels of work satisfaction, and caregiving stress had a much greater impact on depression for those women with high work satisfaction than for those women with low work satisfaction.
depression for the high work satisfaction group was 13.5 ($SD = 11.20$).

Role Involvement and Well-Being

Table 5 presents the effects found in the analyses of role involvement as a potential moderator. As in Table 4, this table displays effects that were detected at the last step of each analysis. The top half of the table displays the analyses of caregiving involvement as a potential exacerbator of work stress, and the bottom half of the table displays the analyses of work involvement as a potential buffer of caregiving stress. With the exception of the equation for caregiving involvement and positive affect, all models were significant at or beyond the .01 level, and the total amount of variance in well-being accounted for in the models that reached significance ranged from 7 to 29 percent.

Main effects. — Only one significant main effect was found for either work or caregiving involvement. However, the sign of the regression coefficient for this main effect was in an unexpected direction. Number of work hours was significantly related to less positive affect in the analyses of work involvement as a potential moderator.

Moderating effects. — No significant moderating effects were found for caregiving involvement on the relationship between work stress and well-being. In contrast, significant buffering effects of work hours on the relationship between caregiving stress and well-being were found for all three well-being indices, controlling for work stress, caregiving hours, parent’s level of impairment, and hours of paid assistance with caregiving. These interactions accounted for an additional 6.10 percent to 8.82 percent of the variance in well-being. The interaction between work hours and caregiving stress on depression is depicted in Figure 2. Graphs for the other interaction terms had similar interpretations. As Figure 2 shows, a high level of caregiving stress was not related to greater depression for those women working a high number of hours, but high caregiving stress was associated with greater depression for those women working a low number of hours.

Decomposition analyses were conducted for each significant interaction effect to determine the significance of the slope of well-being on caregiving stress at low work hours (one standard deviation below the mean, equivalent to 27.5 hours worked per week) and high work hours (one standard deviation above the mean, equivalent to 45.7 hours worked per week). The slope of physical health on caregiving stress was significantly different from zero at a low number of work hours ($b = -1.98$, $p < .05$), but not at a high number of work hours ($b = -0.36$). The sign of the significant coefficient indicated that more caregiving stress was associated with poorer physical health for those working a low number of hours. In regard to depression, decomposition of this signifi-

![Figure 1. Interaction of caregiving stress with work satisfaction for the outcome of depression. Low work satisfaction and low caregiving stress are equivalent to one standard deviation below the mean for those variables, and high work satisfaction and high caregiving stress are equivalent to one standard deviation above the mean for those variables.](https://academic.oup.com/psychsocgerontology/article-abstract/52B/5/S279/629014)

### Table 5. Hierarchical Multiple Regression Analyses of Role Stress, Role Involvement, and Well-being

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Physical Health</th>
<th>Depression</th>
<th>Positive Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$ (SE)</td>
<td>$\beta$</td>
<td>$\Delta R^2$</td>
</tr>
<tr>
<td>Caregiving Involvement as a Moderator ($N = 105$)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caregiving stress$^a$</td>
<td>-1.30 (0.36)</td>
<td>-3.34***</td>
<td>.15***</td>
</tr>
<tr>
<td>Work stress</td>
<td>-0.40 (0.24)</td>
<td>-1.15</td>
<td>.02</td>
</tr>
<tr>
<td>Caregiving involvement</td>
<td>-0.01 (0.01)</td>
<td>-1.00</td>
<td>.01</td>
</tr>
<tr>
<td>Work stress $\times$ Caregiving involvement</td>
<td>-0.00 (0.01)</td>
<td>-0.05</td>
<td>.00</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td></td>
<td>.18***</td>
<td></td>
</tr>
<tr>
<td>Work Involvement as a Moderator ($N = 101$)$^b$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work stress$^a$</td>
<td>-0.25 (0.02)</td>
<td>-1.78*</td>
<td>.07**</td>
</tr>
<tr>
<td>Caregiving stress</td>
<td>-1.17 (0.35)</td>
<td>-3.11***</td>
<td>.09**</td>
</tr>
<tr>
<td>Work involvement</td>
<td>-0.03 (0.02)</td>
<td>-1.31</td>
<td>.00</td>
</tr>
<tr>
<td>Caregiving stress $\times$ Work involvement</td>
<td>0.09 (0.03)</td>
<td>.26**</td>
<td>.06**</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td></td>
<td>.29***</td>
<td></td>
</tr>
</tbody>
</table>

Notes. All models except the one for caregiving involvement and positive affect are significant at $p \leq .01$. The change in variance accounted for by an interaction represents a moderating effect of role involvement when significant. $b =$ unstandardized, $\beta =$ standardized regression coefficients.

$^a$Control variable.

$^b$All work involvement models also control for caregiving hours, parent’s level of impairment, and hours of paid assistance with caregiving.

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

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cant interaction indicated that the slope of depression on caregiving stress was significantly different from zero at low work hours ($b = 14.74$, $p < .05$) but not at high work hours ($b = 2.09$). The sign of the significant coefficient indicated that higher caregiving stress was associated with more depression for women working a low number of hours. Analysis of the interaction effect for positive affect showed that the slope of positive affect on caregiving stress was significantly different from zero at a low number of work hours ($b = -6.47$, $p < .05$), but not at a high number of work hours ($b = .85$). The sign of the significant coefficient indicated that more caregiving stress was associated with less positive affect for those working a low number of hours.

**Discussion**

Results from the present study provide evidence that experiences in the work role can moderate the effects of caregiving stress on women's well-being. As predicted, women who worked a greater number of hours were buffered from the deleterious effects of caregiving stress, and these results were found for all three indices of well-being. Although women who were more satisfied at work experienced fewer depressive symptoms than women who were less satisfied, high work satisfaction was associated with much greater levels of depression under high levels of caregiving stress. Furthermore, satisfaction in both the caregiving and work roles was directly related to greater well-being even after controlling for the level of stress experienced in these roles.

The findings that most strongly supported our hypothesis concerning role involvement were found for the domain of work. For those women who worked part-time, higher levels of caregiving stress were related to poorer physical health, greater depression, and less positive affect. In contrast, for those who worked full-time, there was no association between higher caregiving stress and poorer physical health, greater depression, or less positive affect.

The protective effects of full-time employment found for women involved in parent care may have several explanations. First, these effects may be due to the greater amount of time away from caregiving that working more hours provides. As suggested by others (e.g., Brody, 1990; Scharlach, 1994), time spent at work may provide women with much-needed respite or distraction from the responsibilities of caregiving. Second, it is possible that the advantage of full-time work stems from the greater financial, social, and psychological resources it provides over part-time work. Full-time workers often receive higher pay, have more fringe benefits, and have greater opportunities for career advancement than part-time workers (Herold and Waldron, 1985; Vecchio, 1984). In addition, it has been suggested that full-time workers more fully participate in the social life of the workplace and have more access to supportive social relationships with co-workers (Wethington and Kessler, 1989).

Other research on employed caregivers has also found beneficial effects of full-time work for caregivers when compared to part-time work (Enright and Friss, 1987). In this research, however, other factors — such as hours of care, impairment of the care-recipient, and hours of paid assistance — may have accounted for those findings. Given that the present study found that work involvement buffered the effects of caregiving stress even after controlling for these factors, our conclusion — that the beneficial effects of full-time employment are due to the greater amount of respite and resources gained — is strengthened.

Our hypotheses regarding the main effects of role involvement were not supported. No main effects were found for caregiving involvement. Greater work involvement was found to be related to only one index of well-being, and this relationship was opposite to our prediction. A higher number of work hours was related to less (rather than more) positive affect. This finding also contradicts research in the larger literature on women's work, which shows that full-time work is more beneficial for women than part-time work (Wethington and Kessler, 1989). However, this finding is somewhat consistent with other research on employed caregivers, which has found that caregivers who are employed a greater number of hours also experience more global stress and more difficulty combining work and family (Gottlieb, Kelloway, and Fraboni, 1994; Neal et al., 1993). Our findings suggest that whereas working more hours may help to protect against the effects of caregiving stress, overall it is also associated with less positive affect.

We found mixed evidence for the protective effects of work satisfaction. As predicted, low work satisfaction was associated with greater depression under conditions of high caregiving stress. This finding is consistent with the research of others regarding the buffering effects of work rewards on stressful family experiences (Barnett and Marshall, 1991; Barnett, Marshall, and Sayer, 1992). Contrary to our prediction, higher levels of depression were also found for those women who were highly satisfied with work, and this relationship between higher caregiving stress and greater depression was much stronger than that observed for women who were less satisfied with work. However, it is important to note that overall, and especially for women with low levels of caregiving stress, work satisfac-
tion did provide protective effects against increased depression. Our findings suggest that it is the combination of being very satisfied with work and having high levels of caregiving stress that is associated with particularly high levels of depression.

It may be that women who are both satisfied with their work and stressed by caregiving responsibilities are also more depressed because of the conflict they perceive between these two roles. Experiencing greater job satisfaction may indicate that employment is more central to a woman’s self-concept. Having a job that is important or salient to the self has been found to be associated with higher levels of perceived work-family conflict (Greenhaus et al., 1989). Women in our sample may have experienced negative feelings because of perceived conflict between caregiving and employment. In addition, the daily demands of these two roles may conflict. Research has shown that caregiving responsibilities can interfere with employment through such means as increased absenteeism and work interruptions (e.g., Franklin, Ames, and King, 1994; Scharlach, 1994), and such interferences may be especially problematic for women who are highly satisfied with their jobs.

We found stronger evidence for the direct effects of role satisfaction than for its buffering effects. Satisfaction in both caregiving and work was associated with greater well-being. Regardless of the amount of stress experienced in caregiving and work, caregiving satisfaction predicted better physical health and positive affect, and work satisfaction was associated with greater well-being for all three well-being measures. These findings extend previous research on the rewards of caregiving (Stephens, Franks, and Townsend, 1994) by showing that satisfaction in caregiving can predict well-being past the effects of stress in that role and in the work role. In addition, these findings contribute to the literature on employed caregivers by showing that satisfactions at work can be associated with caregivers’ greater well-being.

Experiences at work appeared to have a stronger bearing on caregiving than caregiving had on work. In contrast to the moderating effects found for work involvement and work satisfaction on the relationship between caregiving stress and well-being, no moderating effects were found for caregiving involvement or caregiving satisfaction on the relationship between work stress and well-being. Conceptualizing these interaction effects in terms of role spillover (e.g., Barnett, 1994), it can be concluded from these findings that evidence was found for spillover from work to caregiving but not from caregiving to work. It may be that the women in this study were better able to keep caregiving experiences from affecting work than they were able to keep aspects of work from affecting caregiving. Other researchers have found evidence for women’s ability to avoid spillover from the family domain to the work domain (e.g., Barnett and Marshall, 1992; Bolger et al., 1989). Alternatively, it is possible that other caregiving experiences not examined as potential moderators in this study do in fact condition the effects of work stress, such as the impairment of the older adult or the quality of the relationship between the caregiver and her parent or parent-in-law.

Finally, the sample size used in the present study may not have allowed adequate statistical power to detect all hypothesized moderation effects, in particular those of smaller magnitude (Jaccard, Turrisi, and Wan, 1990).

One limitation of the present study is its cross-sectional design, which precludes the ability to rule out a different causal ordering than that proposed. For example, it is possible that the relationship between caregiving stress and decreased well-being for part-time workers occurred because caregivers who were in poorer physical or mental health and were more stressed from caregiving reduced the number of hours they worked. Although the literature on employed caregivers indicates that some women reduce their work hours because of caregiving responsibilities (e.g., Brody et al., 1987; Stone and Short, 1990), it is not known to what extent this may have occurred in our sample.

Another limitation of this study may be the generalizability of the findings to other employed caregivers, given that respondents were self-selected. On the one hand, the current sample may have been less stressed due to caregiving than typical employed caregivers, given that these women had the time available to participate in this study. On the other hand, the women in the sample may have participated because they were highly stressed by the experience of juggling these two roles and were looking for insight into their problems. In order to increase the representativeness of the sample, caregivers were recruited through a variety of sources rather than relying on a single source of recruitment (Barer and Johnson, 1990).

Also, it is not known to what extent this sample is representative of employed women caregivers in terms of level of work involvement. The fact that three-quarters of our respondents were employed full-time is consistent with national figures for all employed women (U.S. Department of Labor, Women’s Bureau, 1994), but no data are currently available on the percentage of women caregivers who work full-time. Although data from a national survey of informal caregivers indicated that approximately three-quarters of employed caregivers work full-time, both male and female caregivers were included in this survey (American Association of Retired Persons and The Travelers Companies Foundation, 1988). Finally, it is not known to what extent this study’s findings would generalize to employed caregivers with other ethnic and socioeconomic backgrounds, in particular to employed caregivers with less education and fewer economic resources.

The present study extends previous research on employed caregivers and the general literature on work and family in several ways. First, rather than focusing on the effects of occupancy of the employment role, the present study identifies two particular aspects of work that can be beneficial to caregivers’ well-being. Second, in contrast to previous research, which has shown the buffering effects of work rewards on family stress, the present study demonstrates that these relationships are more complex in the context of caregiving. Taken together, the results of this study support the perspective that caregivers’ other roles have the potential to enhance well-being or provide resources that could buffer the impact of stresses associated with caregiving (Stoller and Pugliesi, 1989).
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REFERENCES


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