Eldercare Responsibilities, Interrole Conflict, and Employee Absence: A Daily Study

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A model was developed specifying that the number of hours employees spend providing care to or interacting with elderly parents predicts conflict between the roles of employee and caregiver. Interrole conflict was subsequently expected to predict partial absence from work (e.g., arriving late). Seventeen employed eldercare providers completed a daily questionnaire for 20 work days. The data were standardized and pooled, and the proposed model was tested by using structural equation modeling. The proposed model provided a good fit to the data. A competing model that added the direct effects of hours of interacting with and hours of providing care to parents on partial absence provided a significantly better fit. The potential impact of the findings on employees and organizations is discussed.

Declining birth and fertility rates coupled with increasing life expectancies are resulting in a rapidly growing North American elderly population (MacBride-King, 1990; Scharlach, Lowe, & Schneider, 1991). Longevity, however, does not guarantee good health, given our susceptibility to age-related ailments such as dementia, stroke, kidney failure, and blindness (Scharlach et al., 1991; Winfield, 1988). Elderly citizens wishing to remain independent usually require some form of caregiving support. Family members, traditionally female relatives, provide between 70% and 80% of such “eldercare” (Brice & Alegre, 1989). A trend toward having fewer children, however, is seriously limiting the number of potential caregivers. When considered together with the vast number of women entering the labor force, this trend is increasing the likelihood of caregiving responsibilities being absorbed by employed individuals.

Employed providers of eldercare commonly report eldercare responsibilities lead to their missing work, having interruptions at work, and having to change their work schedules (Brody, Kleban, Johnsen, Hoffman, & Schoonover, 1987; Opinion Research Corporation, 1989; Stone, Cafferata, & Sangl, 1987). Caregiving employees also report more full days missed, more time off work, and more interruptions at work because of family responsibilities than other employees (Neal, Chapman, Ingersoll-Dayton, Emlen, & Boise, 1990; Scharlach & Boyd, 1989).

Although both full and partial absence (e.g., late for work and leave work early) are related to caregiving duties, partial absence may be a more sensitive indicator of how work is affected by eldercare responsibilities. Differences in absence behavior between eldercare providers and non-eldercare providers are present for partial absence even when family responsibilities are not specifically cited as a reason for the absence, which is not the case for full-day absence (MacBride-King, 1990). An analysis of absence data for providers of eldercare (Barling, MacEwen, Kelloway, & Higginbottom, 1994) further supports this suggestion: A correlation of only .18 emerged between the measures of full absence (days) and partial absence (leaving work early, arriving late, and telephone time). Full and partial absence may be separate phenomena that are differentially affected by eldercare responsibilities.

The types of activities that caregivers provide lend to this interpretation. For example, elders require assistance in bathing, eating, and transportation to medical, government, or financial consultations (Azarnoff & Scharlach, 1988; Friedman, 1986). Such assistance can often only be carried out during business hours, but usually cannot be completed during the average lunch hour or break, and emergency arrangements or telephone contact with needed agencies are unavoidable interruptions. Elder care activities may simply interfere with work responsibilities.

Eldercare providers and other employees differ not only in absence patterns but also in reports of interrole conflict. Studies have revealed that eldercare
providers are more likely to report difficulties in balancing work and home responsibilities than non-eldercare providers (MacBride-King, 1990). Similarly, Neal et al. (1990) reported that individuals providing eldercare have significantly greater difficulty in combining work and family than other employees.

Support exists for a relationship between measures of interrole conflict and absence. Employees reduce conflict between family and work responsibilities by taking half days and sick days (Spilerman & Schrank, 1991). Caregivers reporting difficulty balancing the roles of caregiver and employee exhibit more full and partial absence than caregivers who do not report such difficulty (MacBride-King, 1990). Barling et al. (1994) suggested a model whereby eldercare duties lead to interrole conflict that in turn leads to both psychological strain and partial absence, further emphasizing the relationship between interrole conflict and partial absence.

In the present article we propose a model based on previous research that incorporates the relationship between interrole conflict and absence and Gutek, Searle, and Klepa’s (1991) finding that the number of hours devoted to family work is strongly related to interrole conflict. The dual nature of conflict between work and family (Frone, Russell, & Cooper, 1992; Gutek et al., 1991) confirms the need to include two types of interrole conflict: work interference with parent care and parent-care interference with work. Thus, we propose that the time devoted to caregiving responsibilities leads to interrole conflict between the roles of caregiver and employee, which in turn leads to partial absence from work (see Figure 1). No direct effects of time devoted to caregiving on partial absence were predicted.

Two competing models were created to test the relevance of our proposed fully mediational model. A nonmediational model was created containing only the direct effects of interaction hours, caregiving hours, and both interrole conflict measures on partial absence. The indirect mediational relationship between the time devoted to caregiving and partial absence by interrole conflict was not present. A second competing model, the mixed model, adds to the proposed model the direct effects of time devoted to caregiving on partial absence.

Over time eldercare difficulties tend to become more complicated. Difficulties can also be of sudden onset (e.g., injury or sudden illness; Beck et al., 1990; Brice & Alegre, 1989). Both the quantity and the type of care required on one day, therefore, could differ quite dramatically from care required on the next. Previous research has involved only cross-sectional measures and ignored daily variations. Research in other areas has made use of daily studies to examine variation across days (Caspi, Bolger, & Eckenrode, 1987; Williams, Suls, Alliger, Learner, & Wan, 1991). We used a daily method of data collection for approximately 20 work days to capture variation in the variables of interest. Daily collection of absence data is also superior to more global measures because collection of data closer to “real time” can lessen distortions occurring because of the passage of time (Johns & Nicholson, 1982). Finally, because mood has been found to be related to employee absence (George, 1989), we statistically controlled for the effects of daily mood in this study.

Method

Participants

Seventy-two participants from a study conducted by Barling et al. (1994) were identified as providers of care to elderly relatives. Because of the death or institutionalization
of the participant's elderly relative, only 30 of these individuals were continuing to provide eldercare. Twenty-four of these 30 individuals agreed to participate in the current study, the remainder were not available during the time of data collection (e.g., vacation, sabbatical leave, and end of contract). Five of these 24 individuals decided they were too busy to complete a daily questionnaire and removed themselves from the study within the first 5 days of data collection. Finally, 2 others were dropped from the study: 1 because he or she was on the night shift, and 1 because his or her spouse was unemployed and completing the questionnaire. The remaining participants were 11 female and 6 male employees of one university who had identified themselves as caregivers to an elderly relative. Respondents had been providing eldercare for an average of 9.7 years (SD = 6.9, range = 3–26). Participants ranged in age from 30 to 63 years (M = 45.94, SD = 10.16), 16 were married, 1 was divorced, and the average duration of employment with the university was 14.53 years (SD = 10.61, range = 2–30).

**Materials**

The amount of time spent giving care was measured in two items. Participants were asked to indicate the number of hours spent “interacting with my parent” and “providing care for my parent,” r(186) = .29. Participants were asked to rate the amount of daily interrole conflict experienced. The items measuring interrole conflict used in the present study were derived from Barling et al.’s (1994) interrole conflict scale. Barling et al. developed their scale from items originally used by Kopelman, Greenhaus, and Connolly (1983). Four similar items from each of Barling et al.’s parent-care interference with work scale and the work interference with parent-care scale were chosen for use in the present study. These items were chosen on the basis of the highest interitem correlation of all eight items with the original scale. Responses were indicated on a 5-point scale: 1 (strongly disagree) to 5 (strongly agree). Because the items had to reflect only the conflict experienced on a single day, the items were phrased in the past tense, and the word today appeared at the end of each item. For example, Barling et al.’s original item “I come home from work too tired to do some of the things I want to do for my parents” became “I came home from work too tired to do some of the things I wanted to do for my parents today.” See the Appendix for the daily interrole conflict items.

Six items assessed aspects of partial absence. Participants were asked to indicate if they were late for work, left work early, spent time on the telephone, extended a break, extended a lunch, or were distracted at work because of eldercare responsibilities. The number of items marked represented the partial-absence score for that day. This partial-absence measure was an extension of Barling et al.’s (1994) scale, which only used three items: late for work, left work early, and spent time on the telephone. Full absence was addressed by asking participants to indicate if they had missed a day’s work because of eldercare responsibilities.

Daily mood was determined by using Caspi et al.’s (1987) one-item mood scale. Participants were asked to respond to “How were your spirits today?” on a 7-point scale: 1 (extremely poor) to 7 (extremely good).

**Procedure**

Individuals agreeing to participate in the current research were contacted by telephone and the details of the study were explained. Participants were asked to complete a daily questionnaire for 20 work days. Each questionnaire was completed before retiring in the evening and was returned through campus mail the following morning. The questionnaires were not completed on weekends or holidays. The daily questionnaires were sent out in packages of five, each questionnaire accompanied by an addressed return envelope.

**Statistical Analysis**

Data were pooled across participants to create a total number of observations equal to the number of participants multiplied by the number of days in the study (i.e., what Caspi et al., 1987, called person-days). The covariance matrix of the proposed path model was analyzed by using maximum-likelihood estimation with LISREL VII (Joreskog & Sorbom, 1989). Variables with correlated residual variance required their error terms to be correlated to prevent the distortion of the model fit and the biasing of other parameter estimates (Byner & Romney, 1985). Participants in the present study had expressed some difficulty in differentiating between hours of caregiving and hours of interaction, occasionally incorporating the two, and the interrole conflict measures were related, r(186) = .44. Therefore, we allowed the errors for hours of providing care and hours of interacting with parents to correlate, as well as the errors for the two types of interrole conflict. Any effects of daily mood were controlled by entering mood as a predictor of both interrole conflict measures and partial absence, while allowing it to covary freely with hours spent caregiving or interacting with parents.

Before analysis, each variable was standardized within subject to avoid uninterpretable calculations because of confounding of between-persons and within-person variance (Michela, 1990). A zero-order correlation between providing care and parent-care interference with work conflict could be altered because of between-persons variance. This could easily occur because individuals varied in their use of the conflict scale: some using the entire scale (1–5) and others using only part of the scale (2–4). Standardization of variables within person creates equivalent means and variances resulting in equal weighting across participants and thus removes between-persons variance. The original metric of the scores was also removed, but this is generally not considered a serious problem (West & Hepworth, 1991). Because within-person variance is residual to between-persons variance, it remains following standardization, leaving only differences in scores to be analyzed (Michela, 1990). As a result of standardization of variables within person, the variables themselves had means and standard deviations approaching, but not equal to, zero and one (see Table 1).

The proposed model was modified slightly to control for a problem common to daily studies, the violation of the assumption that error terms across days are uncorrelated (autocorrelation). The current analysis assumed only the existence of first-order (present day’s scores influenced by previous day’s score) autocorrelation (Caspi et al., 1987). To ensure uncorrelated error terms, we predicted each variable by a lagged variable comprising its previous day’s score.
The first day of data for each participant could not be part of the analysis because it was not possible to calculate such a lagged variable, there being no previous day's score.

**Results**

Table 1 contains intercorrelations of all the standardized variables in the study. These correlations should be interpreted with caution because the effect of autocorrelation has not been removed. Internal consistency ratings (Cronbach’s alpha) for the interrole conflict scales can be found in the diagonal of Table 1.

A maximum of 340 occurrences for each type of partial absence because of eldercare responsibilities was possible. Spending time on the telephone was reported the most frequently, occurring 148 times. Because of eldercare concerns, there were 30 reports of being distracted at work, 19 reports of leaving work early, 16 reports of extending lunch, 13 reports of being late, and 7 instances of extending a break. Only 3 instances of full-day absence were reported, and as such full absence was not used in further analyses.

Table 1 also contains the intercorrelations among the lagged variables that were entered into LISREL VII (Joreskog & Sorbom, 1989). The proposed, fully mediational model provided a good fit to the data, $\chi^2(32, N = 188) = 37.49, p > .05$, goodness-of-fit index = .97, adjusted goodness-of-fit index = .93. This model accounted for 28% of the variance in parent-care interference with work interrole conflict, 15% of the variance in work interference with parent-care interference, and 14% of the variance in partial absence. Figure 1 contains all standardized parameter estimates and their significance levels based on one-tailed tests of significance. Standardized parameter estimates for the lag effects are presented in Table 2.

The nonmediational model that contained only the direct effects of interaction hours, caregiving hours, and both interrole conflict measures on partial absence did not provide an adequate fit to the data, $\chi^2(34, N = 188) = 70.81, p < .001$, goodness-of-fit index = .95, adjusted goodness-of-fix index = .88, and thus lends greater support to the proposed model. The mixed model that added to the proposed model the direct effects of time devoted to caregiving on partial absence also provided a good fit to the data: $\chi^2(30, N = 188) = 19.89, p > .05$, goodness-of-fit index = .98, adjusted goodness-of-fit index = .96. This model accounted for 22% of the variance in partial absence while accounting for the same amount of variance in both of the conflict measures as the

### Table 1

**Means, Standard Deviations, and Intercorrelations of All Standardized Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<tbody>
<tr>
<td><strong>Nonlagged variable</strong></td>
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</tr>
<tr>
<td>1. Interacting</td>
<td>-.02</td>
<td>.94</td>
<td>—</td>
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<tr>
<td>2. Caregiving</td>
<td>.02</td>
<td>.97</td>
<td>.29*</td>
<td></td>
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<td></td>
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<tr>
<td>3. PIW</td>
<td>-.04</td>
<td>.90</td>
<td>.32*</td>
<td>.43*</td>
<td>(.93)</td>
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<td></td>
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<tr>
<td>4. WIP</td>
<td>-.06</td>
<td>.91</td>
<td>.20*</td>
<td>.28*</td>
<td>.44*</td>
<td>(.85)</td>
<td></td>
<td></td>
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<tr>
<td>5. Partial absence</td>
<td>-.02</td>
<td>.96</td>
<td>.29*</td>
<td>.35*</td>
<td>.34*</td>
<td>.25*</td>
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<tr>
<td>6. Mood</td>
<td>.01</td>
<td>.97</td>
<td>.00</td>
<td>-.04</td>
<td>-.24*</td>
<td>-.22*</td>
<td>-.11</td>
<td>—</td>
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<td><strong>Lagged variable</strong></td>
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<tr>
<td>7. Interacting</td>
<td>.00</td>
<td>.97</td>
<td>.00</td>
<td>-.09</td>
<td>-.05</td>
<td>.00</td>
<td>.00</td>
<td>.04</td>
<td>—</td>
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<tr>
<td>8. Caregiving</td>
<td>.03</td>
<td>.97</td>
<td>-.01</td>
<td>-.06</td>
<td>-.05</td>
<td>-.06</td>
<td>.00</td>
<td>-.03</td>
<td>.25*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. PIW</td>
<td>.00</td>
<td>1.00</td>
<td>-.06</td>
<td>-.14</td>
<td>-.07</td>
<td>.05</td>
<td>-.01</td>
<td>.04</td>
<td>.27*</td>
<td>.37*</td>
<td>—</td>
<td></td>
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</tr>
<tr>
<td>10. WIP</td>
<td>-.02</td>
<td>.95</td>
<td>-.04</td>
<td>-.07</td>
<td>-.02</td>
<td>.07</td>
<td>.01</td>
<td>-.07</td>
<td>.28*</td>
<td>.23*</td>
<td>.44*</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>11. Partial absence</td>
<td>.00</td>
<td>.94</td>
<td>-.15*</td>
<td>-.11</td>
<td>-.05</td>
<td>-.04</td>
<td>.05</td>
<td>-.05</td>
<td>.28*</td>
<td>.31*</td>
<td>.37*</td>
<td>.34*</td>
<td>—</td>
</tr>
<tr>
<td>12. Mood</td>
<td>.01</td>
<td>.98</td>
<td>-.05</td>
<td>.03</td>
<td>.01</td>
<td>-.10</td>
<td>.05</td>
<td>.09</td>
<td>-.03</td>
<td>-.03</td>
<td>-.21*</td>
<td>-.25*</td>
<td>-.12</td>
</tr>
</tbody>
</table>

**Note.** $N = 188$. Internal reliability (Cronbach’s alpha in parentheses) presented on the diagonal. PIW = parent care interference with work; WIP = work interference with parent care. $*p < .01$. 

### Table 2

**Standardized Parameter Estimates of Lagged Paths in Fully Mediational and Mixed Models**

<table>
<thead>
<tr>
<th></th>
<th>Lagged path</th>
<th>Fully</th>
<th>Mixed</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>mediated</td>
<td></td>
</tr>
<tr>
<td>Interacting hours</td>
<td>.021</td>
<td>.021</td>
<td></td>
</tr>
<tr>
<td>Caregiving hours</td>
<td>-.065</td>
<td>-.065</td>
<td></td>
</tr>
<tr>
<td>Parent-care interference with work</td>
<td>-.016</td>
<td>-.016</td>
<td></td>
</tr>
<tr>
<td>Work interference with parent care</td>
<td>.074</td>
<td>.074</td>
<td></td>
</tr>
<tr>
<td>Partial absence</td>
<td>.072</td>
<td>.114*</td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td>.088</td>
<td>.088</td>
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</tbody>
</table>

$*p < .05$, one tailed.
The proposed model, therefore, improved the fit of the proposed model to the data.

**Discussion**

We investigated a model based on previous research predicting that the number of hours of daily interaction with and care provided to elderly parents would lead to both parent-care interference with work role conflict and work interference with parent-care role conflict. We also predicted that employee partial absence from work (e.g., arriving late, leaving early, and talking on the telephone) would result from both types of interrole conflict. Partial absence was chosen as the outcome because the activities engaged in by caregivers (e.g., driving parent to and from appointments and fixing parent dinner) are consistent with caregiver absence for only part of the work day. This hypothesized fully mediational model proved to be a good fit to the data. A competing model containing only the direct effects of caregiving and interacting hours, and both types of interrole conflict on partial absence, failed to fit the data, lending further support, albeit indirect, to the proposed model.

A second competing model, however, provided a significantly improved fit to the data over the hypothesized model. This model added two paths to the proposed model. Hours of interacting with parents and hours of care provided to parents were predicted to have direct effects on partial absence. Despite the improvement in model fit with the addition of these two paths, the importance of the fully mediational model cannot be ignored because it remains as an integral part of the mixed model.

The success of models predicting partial absence lends some support to partial absence being the absence pattern displayed by individuals providing care to elderly parents. Indirect support for a partial-absence pattern was also apparent because full-day absence was not reported by eldercare providers often enough even to be included in the analyses.

The types of partial absence most often reported involved use of the telephone at work for eldercare purposes and being cognitively distracted at work because of eldercare responsibilities and concerns. Organizations need to become aware that these "less visible" absences are occurring—individuals being present at work, but taking time from work responsibilities, or perhaps having difficulties performing their duties. Organizations could reduce such problems by making eldercare assistance information available to employees spending work time worrying or on the telephone seeking ways to attend to eldercare responsibilities.

Parent-care interference with work role conflict and work interference with parent-care role conflict were established as predictors of partial absence in the proposed model and the best fitting mixed model. The number of hours of care provided to an elderly parent, and the number of hours of interacting with an elderly parent, were both found to affect each of the two interrole conflict measures.

The fit of the mixed model seems to indicate common antecedents for both types of interrole conflict. This is not consistent with previous literature, which has emphasized independence of predictors of work versus family and family versus work conflict (Frone et al., 1992; Gutek et al., 1991). The accepted model in the present research does question this idea and encourages future research not to ignore common predictors.

Both types of interrole conflict also have a common outcome—partial absence. This result reinforces findings that partial absence results from eldercare-based interrole conflict (Barling et al., 1994). Partial absence was also found to be directly related to hours of interaction with and care provided to elderly parents. Organizations would be hard pressed to intervene at this level to reduce partial absence. Instead, they would be well advised to attend to the relationship suggested between interrole conflict and partial absence. A moderator of this relationship may exist: Supportive supervisors or eldercare policies could play such a role and reduce partial absence.

The present study contains a limitation common to eldercare research, namely, the definition of a caregiver. Studies have defined caregivers of the elderly as providing care to an older person within a specific age range (e.g., Scharlach & Boyd, 1989) or as providing specific forms of care (Stone et al., 1987). Scharlach (1989) showed the need to specify the level of impairment of the elder receiving care. He discovered more frequent reports of negative work impact because of caregiving among employees providing care to cognitively impaired elders than
among those employees providing care to physically impaired elders. The relationship of the caregiver to the recipient should also be included in any definition of a caregiver because differences exist in the caregiving experience for sons and daughters (Horowitz, 1985) and for children and spouses (Baillie, Norbeck, & Barnes, 1988; Deimling, Bass, Townsend, & Noelker, 1989; Miller, McFall, & Montgomery, 1991). Future research therefore should provide such details (Malonebeach & Zarit, 1991; Stone, 1991), and, in the interim, caution must be exercised when comparing across studies or in generalizing the present models. Future research must replicate the accepted model while controlling for such factors and also with participants from other organizations.

The use of self-report data will always be a source of debate (Spector, 1994). Absence information can be extracted from organizational records, but partial-absence information may be difficult to obtain in this manner. Organizational records primarily focus on full-day absence. Absence as a result of extended lunches, long breaks, or excessive telephone use is probably never recorded in any official capacity. However, coworkers of eldercare providers may have first-hand knowledge about eldercare providers' partial absence. Their reports could be used to substantiate employee self-reports of partial absence.

In conclusion, if the results of this study are replicated, the knowledge of how one organizational outcome—partial absence—is affected will enable researchers to begin to plan and evaluate specific organizational interventions. A partial-absence pattern necessitates support alternatives other than full-day leave, such as flexible hours, or half-day family absence leave. Investigations into this type of leave policy (Christensen & Staines, 1990; Denton, Thiessen Love, & Slate, 1990; Kingston, 1990) have already begun, fuelled by the fact that these are often the types of aid requested by employees with family responsibilities (MacBride-King, 1990). This would be important because partial absence may well require different organizational responses than full absence.

References


(Appendix follows on next page)
Appendix

Daily Interrole Conflict Items

Work Interference With Parent Care

I came home from work too tired to do some of the things I wanted to do for my parents today.
Because my work was so demanding I was irritable when caring for my parents today.
Due to the demands of my job, I found it difficult to be relaxed when I was caring for my parents today.
My job made it difficult for me to be the kind of son/daughter I would have liked to be today.

Parent Care Interference With Work

After caring for my parents, I was too tired to do some of the things I had to do at work today.
Because caring for my parents was so demanding I was irritable at work today.
Due to the demands of caring for my parents, I found it difficult to be relaxed at work today.
Caring for my parents made it difficult for me to be the kind of worker I would have liked to be today.

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