

## Predictors and Outcomes of Elder-Care-Based Interrole Conflict

Julian Barling, Karyl E. MacEwen, E. Kevin Kelloway, and Susan F. Higginbottom

The authors propose and test a model of the predictors and outcomes of the role conflicts experienced by individuals simultaneously holding full-time employment and providing care for elderly parents. It is proposed that interrole conflict is predicted by physical and psychological involvement in elder care and predicts both partial absenteeism from work and psychological strain. In turn, psychological strain predicts marital interactions. Data from 141 full-time employees from 2 universities provided strong support for the proposed mediational model using LISREL VII. In contrast, 2 alternative models were not supported by the data.

The past five decades have witnessed numerous demographic changes affecting employment patterns, each of which has been followed by research attempting to understand the consequences of the particular shift. Several examples of this phenomenon exist. First, unemployment levels in the 1930s, late 1970s, and early 1980s were followed by large bodies of research (cf. Fryer, 1992; Jahoda, 1982). Second, whereas child and teenage labor has always concerned social scientists and policy makers, in the past decade there has been a substantial increase in the number of teenagers employed part-time while still attending high school, and a large body of research has accumulated (Greenberger & Steinberg, 1986). Third, the influx of mothers of young children into the workforce since World War II led to a tremendous amount of research on maternal employment (Barling, 1990).

It is now apparent that another significant demographic change has occurred. Specifically, there has been a dramatic increase in life expectancy. In the United States, for example, life expectancy increased from 49 to 75 years between 1900 and the early 1980s, and the fastest growing age group in any developed country is people over the age of 85 years (Rosenwaike, 1985). At the same time, increases in geographic mobility and nontraditional family structures and decreases in family size have reduced the number of caregivers available, placing far greater responsibility for elder care on adults currently in full-time employment (Scharlach, Lowe, & Schneider, 1991). As a result, children are no longer the only dependents of employed parents.

An examination of the possible effects of elder-care responsibilities on employees is certainly justified. The large body of

research on the nature and consequences of the dual roles of parent and employee (Barling, 1990) can be used as a basis for understanding the effects of elder care on employees. This research shows that interrole conflict is stressful because it is overarousing and results in the experience of incompatible environmental demands (MacEwen & Barling, 1991). As such, parent versus employee conflict is associated with increases in cognitive difficulties and depressive symptoms (Barling & MacEwen, 1992; Frone, Russell, & Cooper, 1992; MacEwen, Barling, & Kelloway, 1992; MacEwen & Barling, 1991). The experience of elder-care-based interrole conflict is not expected to be any less intense than that which derives from child-care responsibilities. Instead, it may be even more stressful because elder-care responsibilities may not be anticipated and, unlike child-care responsibilities, tend to become more burdensome over time (Azarnoff & Scharlach, 1988; "The Tragedy of Old Age," 1991). Thus, we predict that interrole conflict associated with elder care will be stressful and will directly predict psychological strain.

Other studies on the consequences of interrole conflict have shown how family functioning is indirectly affected through direct effects on psychological strain. Elsewhere, we have shown how interrole conflict predicts cognitive difficulties and depressive symptoms and directly and indirectly predicts marital functioning and children's behavior (Barling & MacEwen, 1992; Barling, MacEwen, & Nolte, 1993; MacEwen & Barling, 1991). MacEwen et al. (1992) showed that overarousal due to role demands influenced both anxiety and depression, which in turn influenced marital withdrawal and anger respectively. Similarly, the cognitive difficulties and negative mood resulting from interrole conflict associated with maternal employment influence mothers' rejecting and punishing behaviors toward their children (MacEwen & Barling, 1991). Thus, we predict that the role conflicts engendered by concurrent employment and elder-care responsibilities will influence psychological strain, which in turn will influence withdrawal and angry marital interactions.

The directional relationship implied by our hypothesis linking psychological strain to marital functioning requires some comment. Conceptually, it also may be plausible that marital functioning influences psychological strain, suggesting a reversed or reciprocal causal direction. We base our current hypothesis on three longitudinal studies, which support the pro-

---

Julian Barling, Karyl E. MacEwen (now at Child and Adolescent Outpatient Unit, Cornwall General Hospital, Cornwall, Ontario, Canada), E. Kevin Kelloway (now at Department of Psychology, University of Guelph, Guelph, Ontario, Canada), and Susan F. Higginbottom (now at Wilson Banwell Associates, Vancouver, British Columbia, Canada), Department of Psychology, Queen's University, Kingston, Ontario, Canada.

Portions of this research were supported by grants from Imperial Oil, Queen's University Advisory Research Council, and the Social Sciences and Humanities Research Council of Canada to Julian Barling.

Correspondence concerning this article should be addressed to Julian Barling, who is now at School of Business, Queen's University, Kingston, Ontario, Canada K7L 3N6.

posed direction. First, in their weekly diary study of acute role overload, MacEwen et al. (1992) demonstrated that overload influenced reports of both negative mood and anxiety, which, in turn, influenced marital functioning. Second, on the basis of cross-lagged regressions, Higginbottom, Barling, and Kelloway (1993) demonstrated that depressive symptoms predicted marital satisfaction over a 6-month time lag with no evidence of reverse causality. Finally, Kelloway and Barling (in press) found that occupational stress predicted psychological strain, which, in turn, predicted marital satisfaction and divorce propensity. Importantly, psychological strain predicted marital satisfaction and divorce propensity over both a 6-month and a 12-month time lag with no evidence of reverse causality. Therefore, we suggest that there are now sufficient data supporting the proposed direction of our hypothesis.

One of the primary concerns with regard to the organizational consequences of interrole conflict has been its effects on employee absence. When the demands of work and family are incompatible, and family demands (such as a sick child) can neither be delayed nor ignored, employee absence is likely. Most research has examined the effects of work versus family conflict on a full day's absence (e.g., Duxbury & Higgins, 1991; Kossek, 1990; Leigh, 1991). In contrast, we argue that elder-care demands (e.g., help with shopping and dealing with government agencies) are more likely to draw employees away from their jobs for part of the day only (i.e., partial absence). This pattern of absenteeism would be manifest through employees arriving late, leaving early, or spending considerable amounts of time on the telephone while at work. There is some support for this from survey data (e.g., Azarnoff & Scharlach, 1988; MacBride-King, 1990), and studies have shown a relationship between work-parenting conflict and the frequency of both partial and full absence (Clements & Jenkins, 1990; Spilerman & Schrank, 1991). We argue that involvement in elder care will produce interrole conflict, which in turn will influence partial absenteeism. In this respect, partial absence is a socially adaptive coping mechanism that is a function of external forces (Johns & Nicholson, 1982).

Most research in work-family conflict has focused on its consequences (Barling, 1990). Our model also focuses on the predictors of elder-care interrole conflict and hypothesizes that the extent of elder-care responsibilities will predict interrole conflict. Our previous research on work-family conflict has shown that quantitative role overload predicts interrole conflict (MacEwen & Barling, 1992). However, the involvement required in elder care is not just time consuming. Elder-care responsibilities call for the provision of physical and psychological help to elderly parents, hence it is also emotionally demanding. Employees' attitudes toward their parents must also be accounted for, because the experienced conflicts may be dependent on the closeness of the relationship with the elderly parent. Unlike other studies, we deliberately label this predictor as *elder-care involvement*, emphasizing the quantitative and qualitative role demands. In contrast, previous studies have often used the label *burden*, which implies the experience of elder care is necessarily negative.

Thus, we predict that the extent to which employees are involved in elder-care responsibilities will predict conflicts between the roles of employee, elder-care provider, and parent or spouse. These role conflicts will predict partial absenteeism and

psychological strain. In turn, strain will predict marital interactions (anger and withdrawal; see Figure 1).

## Method

### Subjects

Subjects were recruited from two universities using the same procedure. First, a notice was mailed to all employees, briefly describing the study, asking for volunteers and setting out the criteria for participation (i.e., currently employed, married, and simultaneously providing care for an elderly parent or parent-in-law). At the first university, approximately 2,700 notices were mailed; 1,099 responses were received. Of these, 151 individuals indicated that they were currently involved in caring for an elderly parent or parent-in-law in their own home or elsewhere. Of these 151 individuals, 31 indicated that they were not currently married, and 19 indicated that they were currently caring for an elderly parent and were married but were not willing to participate. Questionnaires were then distributed to the 101 volunteers who qualified for participation, and 87 employees returned their questionnaires. At the second university, 3,279 questionnaires were mailed, and 54 employees volunteered. Because no differences emerged between the two groups with respect to the demographic variables or study variables, the data from the two groups were pooled (see Table 1). Just over half of the participants ( $n = 80, 57%$ ) indicated that they were employed as faculty members, with the remaining participants being support and administrative staff.

### Questionnaires

As operationalized in this study, involvement in elder care includes the provision of physical and psychological help to elderly parents and employees' attitudes toward their elderly parent or parents. The provision of physical help to elderly parents was assessed with 15 items taken from Cirelli's (1983) scale, in which respondents indicate on 4 items the extent to which they assist with activities such as housework, laundry, shopping, and grooming and the extent to which they provided psychological help to elderly parents (e.g., the extent to which respondents provide psychological support or companionship and social and recreational involvement). Fourteen items chosen from Pouloschok and Deimling's (1984) 23-item scale (e.g., whether the elderly parents were interesting to talk to and whether the elderly parents were interested in things, were forgetful, or do embarrassing things) assessed respondents' attitudes toward their elderly parents. All three subscales used a 5-point response format (1 = *never*, 5 = *always*).

We assessed the conflicts experienced between three different roles, namely employee, caregiver for an elderly relative, and spouse or parent. In each case, Kopelman, Greenhaus, and Connolly's (1983) 8-item interrole-conflict scale was used because previous research has shown its construct validity (Barling & MacEwen, 1988). The items were reworded to reflect the specific conflicts associated with elder-care responsibilities (e.g., "Because my work is so demanding, I am irritable when caring for my parents," "Caring for my parents makes it difficult for me to be the kind of worker I would like to be") and were based on a 5-point response scale (1 = *strongly disagree*, 5 = *strongly agree*).

Cognitive difficulties were taken as indexes of psychological strain. As in previous studies on interrole conflict (e.g., Barling & MacEwen, 1992; MacEwen & Barling, 1991), we assessed cognitive difficulties with Fryer and Warr's (1984) scale, in which subjects rate the extent to which each of the 12 items (e.g., "found remembering things difficult," "been making mistakes on the job") occurred over the past month on a 4-point scale (1 = *always*, 4 = *never*). To allow for operationalization of psychological strain as a multiple indicator latent variable, we divided the scale into two 6-item measures using an odd-even split.

To assess marital interaction, two of Repetti's (1989) marital behavior

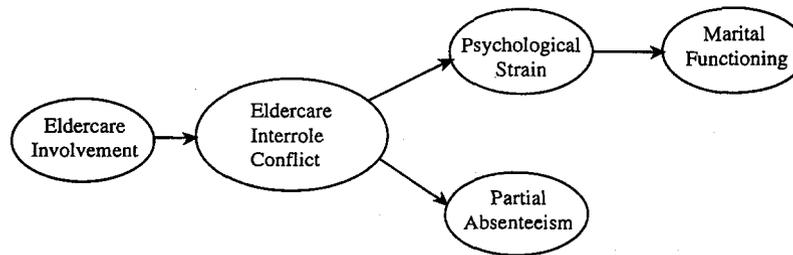


Figure 1. Proposed model of the predictors and outcomes of elder-care-based interrole conflict.

scales were used, namely the 12-item withdrawal subscale (e.g., “I did not pay attention when my partner was talking about something that interests him/her; I looked away or had a bored expression”) and the 19-item anger subscale (e.g., “I said something unkind to my partner”). Respondents indicate the extent to which each of the 31 items occurred over the past month (1 = rarely or none of the time, 6 = most or all of the time).

Three items were used to assess partial absenteeism. Respondents indicated how many times during the past month they had been late for work, left work early, or spent time on the telephone to provide care for parents or in-laws. Some support for the construct validity of this scale is provided by its minimal (although statistically significant) correlation with a one-item measure of full day absenteeism occasioned explicitly by elder-care responsibilities,  $r(141) = .18, p < .05$ .

Method of Data Analysis

To evaluate the model proposed in Figure 1, we followed the two-stage modeling procedure recommended by Anderson and Gerbing (1988). First, we conducted a series of confirmatory factor analyses to establish the measurement model. Three factor analytic models were estimated. The null model specified 13 orthogonal factors with each study variable loading on a separate factor. Next, we estimated a four-factor model based on the observation that the measures of cognitive difficulties correlated strongly with the measures of marital functioning. Thus, the four-factor model hypothesized four oblique factors representing elder-

care involvement, interrole conflict, partial absenteeism, and a fourth factor comprising measures of both psychological strain and marital functioning. Finally, a five-factor model, which represented the constructs depicted in Figure 1, was estimated.

After establishing the fit of the measurement model, we moved to the evaluation of the structural model. The five-factor measurement model was contrasted with a null latent model, constraining the interfactor correlations to be zero. A significant chi-squared difference (Long, 1983) would warrant the evaluation of the proposed structural model. Because support for a model does not preclude other models providing an equivalent or better fit to the data, we follow our test of the structural model with tests of two alternate formulations. A nonmediational model was evaluated that suggested that involvement in elder care exerted direct effects on interrole conflict, psychological strain, partial absenteeism, and marital functioning. Finally, we estimated a model that suggested that elder-care involvement predicted interrole conflict, which, in turn, predicted partial absenteeism, psychological strain, and marital functioning.

Results

All models were evaluated using maximum likelihood estimation as implemented in LISREL VII (Jöreskog & Sörbom, 1989), and all analyses were based on the covariance matrix. Intercorrelations of all study variables are presented in Table 2.

Table 1  
Comparison of Demographic and Biographical Variables Across the Two Samples

Variable	Sample 1		Sample 2		Total sample	
	M	SD	M	SD	M	SD
Age (in years)	46.81	9.18	45.51	9.45	46.28	9.30
Education (in years)	17.01	3.93	16.18	3.68	16.68	3.84
Years married	20.81	10.09	18.69	11.81	19.99	10.79
Physical help	13.25	7.15	15.94	10.67	14.37	8.86
Psychological help	26.76	20.19	32.27	25.52	29.06	22.65
Attitudes toward parents	44.24	27.94	45.02	28.16	44.56	27.94
Work vs. elder care conflict <sup>a</sup>	20.79	6.90	23.31	6.32	21.85	6.76
Elder care vs. work conflict	13.88	6.62	15.18	6.66	14.43	6.65
Elder care vs. spouse conflict	18.50	8.35	20.93	7.28	19.51	7.99
Depressive symptoms	11.20	5.31	12.17	6.32	11.61	5.76
Cognitive difficulties	23.21	5.81	25.59	5.48	24.23	5.77
Marital anger <sup>b</sup>	38.19	11.41	41.69	12.97	39.56	12.14
Marital withdrawal	24.96	7.73	27.31	9.25	25.88	8.40
Partial absenteeism	7.30	8.92	9.33	8.46	8.16	8.76

<sup>a</sup>  $t(141) = 2.26, p < .05$ . <sup>b</sup>  $t(141) = 1.66, p < .05$ .

**Table 2**  
*Intercorrelations of All Study Variables (N = 141)*

Variable	1	2	3	4	5	6	7	8	9	10
1. Physical help	—									
2. Psychological help	.48**	—								
3. Feelings toward parents	.68**	.44**	—							
4. Work vs. elder care	.19*	.11	.24**	—						
5. Elder care vs. work	.16	.06	.14	.59**	—					
6. Elder care vs. spouse	.23**	.21**	.21**	.60**	.69**	—				
7. Cognitive difficulties	.10	.01	.15	.36**	.41**	.42**	—			
8. Marital anger	.16	-.03	.20*	.37**	.37**	.34**	.52**	—		
9. Marital withdrawal	.12	.01	.18*	.51**	.42**	.39**	.59**	.74**	—	
10. Partial absenteeism	.03	.19*	.09	.26**	.16	.32**	.20*	.10	.12	—

Note. Decimal points are omitted from the correlation matrix.  
\*  $p < .05$ . \*\*  $p < .01$ .

*Measurement Model*

Fit indexes for all measurement models are presented in Table 3. On the basis of chi-squared difference tests between nested models, both the four-factor and five-factor models provided a significantly better fit than did the null model: four factor,  $\chi^2(6, N = 141) = 485.76, p < .01$ ; five factor,  $\chi^2(10, N = 141) = 531.10, p < .01$ . In turn, the five-factor model provided a significantly better fit than did the four-factor model:  $\chi^2(4, N = 141) = 45.34, p < .01$ . All fit indexes converge in suggesting the superiority of the five-factor model.

*Structural Model*

Fit indexes for all structural models tested are provided in Table 4. The latent variable measurement model provided a significantly better fit to the data than did the null latent model,  $\chi^2(10, N = 141) = 101.43, p < .01$ , warranting the evaluation of structural models. The proposed model provided an excellent fit to the data, whereas neither of the alternate models provided an acceptable fit.

Standardized parameter estimates for the hypothesized model are presented in Figure 2. Involvement in elder care significantly predicted interrole conflict ( $\beta = .28, p < .01$ ). Interrole conflict predicted partial absenteeism ( $\beta = .33, p < .01$ ) and psychological strain ( $\beta = .53, p < .01$ ). In turn, psychological strain was a substantial predictor of marital interactions ( $\beta = -.71, p < .01$ ).

**Table 3**  
*Fit Indexes for the Measurement Models*

Model	$\chi^2$	df	GFI	AGFI	NFI	PFI
Null	585.52	65	.49	.28		
4 Factor	99.76	59	.87	.80	.83	.75
5 Factor	54.42	55	.93	.89	.91	.76

Note. The goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI), normed fit (NFI), and parsimonious fit (PFI) indexes all range between 0 and 1, with values approaching unity indicating a better fit to the data. The NFI and PFI express comparisons of the target model with the null model.

Discussion

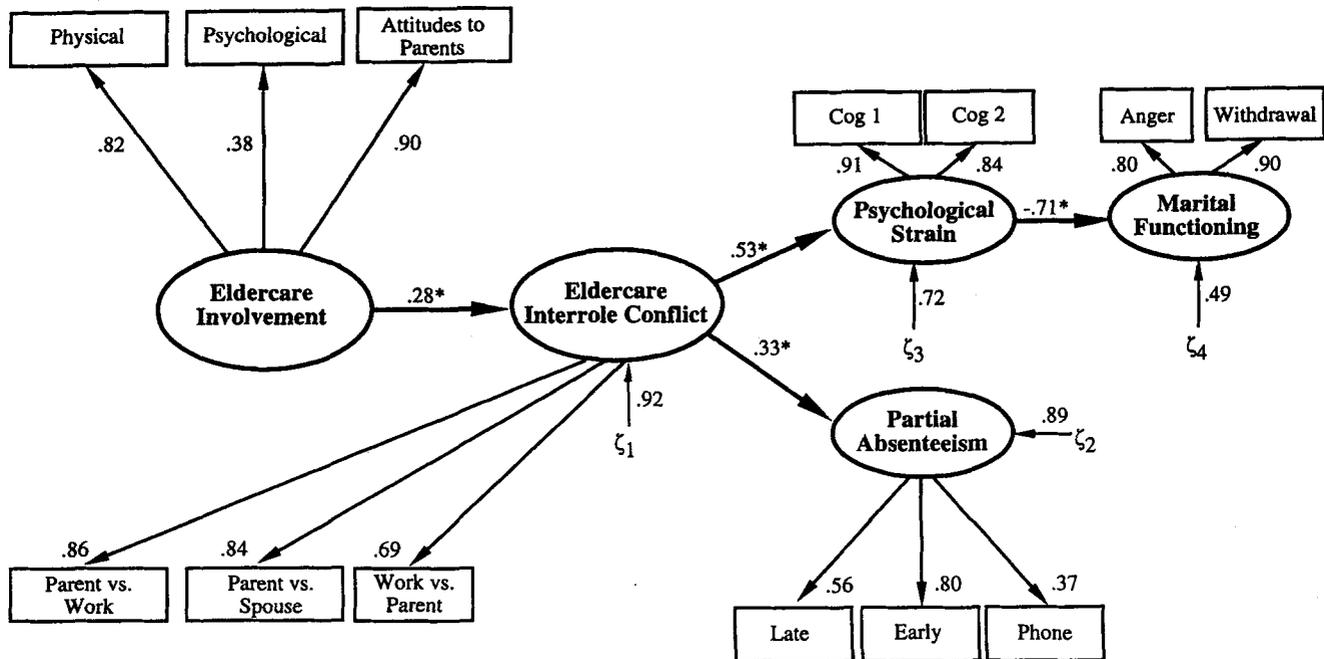
We focused on the predictors and outcomes of elder-care-based interrole conflict. Our results replicate, refine, and extend previous research on the predictors and outcomes of interrole conflict. Perhaps most important, this study extends previous research on interrole conflict in several ways. First, the focus of this research was on the role conflicts engendered by assuming simultaneous responsibilities for elder care and employment. Given the increasing numbers of individuals who will share these dual roles in the near future, understanding the nature and consequences of elder-care-based interrole conflict will assume considerable social importance. In any future research on this topic, some consideration should be given to those employees who provide care for children and elderly parents. Much has been written about the so-called "sandwich" generation (e.g., "Trading Places," 1990), but there is little empirical research on this phenomenon.

Second, from an organizational perspective, the results of this study identify a consequence of interrole conflict that differs from that previously identified in research on work versus family conflict. In that research, full-day absenteeism is usually the outcome criterion. In the present study, we showed that elder-care-based interrole conflict predicted partial absenteeism. This focus on partial absenteeism as the outcome has several consequences for organizations. Whereas resources such as day-care facilities may be appropriate in helping employed mothers

**Table 4**  
*Fit Indexes for the Structural Models*

Model	$\chi^2$	df	GFI	AGFI	NFI	PFI
Null latent	155.85	65	.82	.75		
Nonmediational	136.86	61	.84	.76	.12	.11
2nd Alternative	83.78	61	.90	.86	.46	.43
Proposed model	63.36	61	.92	.88	.59	.53

Note. The goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI), normed fit (NFI), and parsimonious fit (PFI) indexes all range between 0 and 1, with values approaching unity indicating a better fit to the data. The NFI and PFI express comparisons of the target model with the null model.



\* p < .01

Figure 2. Results of the path analysis of the predictors and outcomes of elder-care-based interrole conflict. Cog = cognitive difficulties.

deal with their interrole conflicts (Barling, 1990), they may be of less benefit if the demands of elder care do not require employees to be physically absent from work all day. Thus, day programs for the elderly may reduce full, but not partial, absenteeism for elder-care providers. Interventions acknowledging that some employees would need to be absent for only part of the day and that do not jeopardize attendance would be most beneficial to organizations and employees. Flextime programs would be most appropriate in this respect, but remain under-used (Kingston, 1990). To be successful, their use must be encouraged once they are instituted within organizations (Christensen & Staines, 1990).

Third, the results of the current study show that several aspects of elder-care involvement must be considered to understand the predictors of elder-care-based interrole conflict. We hypothesized that elder care requires giving physical help and psychological support to elders; the quality of the relationships between caregiver and elder parent must also be considered.

Our results also replicate previous findings on work versus family conflict: Consistent with its nature as a stressor, higher levels of interrole conflict are associated with personal strain (i.e., cognitive difficulties). In turn, personal strain directly and negatively predicts the quality of marital functioning (e.g., Barling & MacEwen, 1992; Higginbottom et al., 1993; Kelloway & Barling, in press; MacEwen et al., 1992; MacEwen & Barling, 1991). The results also refine previous interrole-conflict research to some extent by showing that the different aspects of elder-care involvement, interrole conflicts, personal functioning, and marital interactions are all highly intercorrelated. This

has some implications for future research inasmuch as the development and testing of latent variable models is more appropriate at this stage.

Just as we argued that the consequences of elder-care interrole conflict call for a different conceptualization of absenteeism, future research should also clarify how elder-care interrole conflict is manifested. By studying interrole conflict cross-sectionally, it is assumed implicitly that interrole conflict is stable in nature. Yet the demands of elderly parents are such that this may not always be the case. Instead, because of their more episodic nature, it is possible that elder-care interrole conflict is more consistent with a daily or an acute stressor model. This has important ramifications for future research, because the timing and duration of the outcomes of elder-care-based interrole conflict and the coping resources required depend on the nature of the stressor, that is, whether it is daily, acute, or chronic (Pratt & Barling, 1988). In any future research it would be beneficial to use an expanded criterion of partial absenteeism. Our measure included arriving late, leaving early, and the time spent on the phone. Survey data indicate, however, that employees also take expanded lunch hours to meet the demands of elder care and become cognitively distracted while at work. Future research should assess the full range of partial absenteeism and include an assessment of how much work time is lost as well. Of particular interest would be data that allow a direct comparison between full and partial absenteeism.

Whereas our results refine and extend previous literature, it is also appropriate to recognize the potential limitations of our study. First, our sample size was limited, with important ramifications for model evaluation. Most important, tests of model

fit may lack power with small samples, leading one to accept an ill-fitting model. Moreover, simultaneous consideration of a small sample and a relatively complex latent variable model leads to the suggestion that our results are based on over-fitting the variance. We suggest that our ability to reject two alternate model formulations substantially mitigates these concerns. Nonetheless, there is a clear need to replicate our findings on a larger sample.

Second, the nature of our sample potentially limits the applicability of our findings to other research settings. We focus on employees of two universities, employment settings that may be more tolerant of partial absenteeism than other employers. This observation suggests that future research should be predicated on an understanding of the constraints on organizational behavior (Johns, 1991) imposed by individual employers. It is quite possible that these might limit the applicability of partial absenteeism measures in certain settings, just as more flexible organizations may substantially reduce the incidence of full-day absences.

Finally, our hypotheses and discussion have been guided by a focus on the negative aspects of elder-care involvement. It is important to note that we do not exclude the potentially positive outcomes associated with such involvement. Indeed, our results support previous research in suggesting that it is not elder-care involvement per se that leads to negative personal and job-related consequences (e.g., Franks & Stephens, 1992; Walker, Martin, & Jones, 1992). Rather, our results suggest that negative consequences accrue when elder-care involvement leads to interrole conflict. Moreover, it is both the extent and nature of elder-care involvement that predict such conflict. Thus, our findings suggest that future research should focus on the nature of the elder-care relationship rather than on individual status as a caregiver.

In conclusion, we have shown that elder-care-based interrole conflict affects personal functioning and marital interactions in the same way that work-parent conflict does. Elder-care interrole conflict also affects absenteeism, specifically partial absence from work. Because partial absence is a socially adaptive response to an environmental demand, attempts to control its occurrence are not appropriate. Instead, innovative responses from organizations that acknowledge employees' needs to cope with elder-care responsibilities while not compromising attendance behaviors are now required.

## References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step process. *Psychological Bulletin*, *103*, 411-423.
- Azarnoff, R. S., & Scharlach, A. E. (1988). Can employees carry the eldercare burden? *Personnel Journal*, *9*, 60-65.
- Barling, J. (1990). *Employment, stress and family functioning*. New York: Wiley.
- Barling, J., & MacEwen, K. E. (1988). A multitrait-multimethod analysis of four maternal employment role experiences. *Journal of Organizational Behavior*, *9*, 335-344.
- Barling, J., & MacEwen, K. E. (1991). Maternal employment experiences, attention problems and behavioral performance: A mediational model. *Journal of Organizational Behavior*, *12*, 495-505.
- Barling, J., & MacEwen, K. E. (1992). Linking work experiences to facets of marital functioning. *Journal of Organizational Behavior*, *13*, 573-583.
- Barling, J., MacEwen, K. E., & Nolte, M. L. (1993). Homemaker role experiences affect toddler behaviors via maternal well-being and mother-toddler interactions. *Journal of Abnormal Child Psychology*, *21*, 213-229.
- Christensen, K. E., & Staines, G. L. (1990). Flextime: A viable solution to work/family conflict? *Journal of Family Issues*, *11*, 455-476.
- Cirelli, V. G. (1983). A comparison of helping behavior to elderly parents of adult children with intact and disrupted marriages. *The Gerontologist*, *23*, 619-625.
- Clements, C., & Jenkins, G. D. (1990, August). *Work-family inter-role conflict and absence behavior: Applying relevant constructs*. Paper presented at the 1990 Academy of Management meeting, San Francisco.
- Duxbury, L. E., & Higgins, C. A. (1991). Gender differences in work-family conflict. *Journal of Applied Psychology*, *76*, 60-74.
- Franks, M. M., & Stephens, M. A. P. (1992). Multiple roles of middle-generation caregivers: Contextual effects and psychological mechanisms. *Journal of Gerontology*, *47*, S123-S129.
- Frone, M., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology*, *77*, 65-78.
- Fryer, D. (1992). Editorial: Introduction to Marienthal and beyond. *Journal of Occupational and Organizational Psychology*, *65*, 257-268.
- Fryer, D., & Warr, P. B. (1984). Unemployment and cognitive difficulties. *British Journal of Clinical Psychology*, *23*, 87-88.
- Greenberger, E., & Steinberg, L. D. (1986). *When teenagers work: The psychological and social costs of adolescent employment*. New York: Basic Books.
- Higginbottom, S. F., Barling, J., & Kelloway, E. K. (1993). Linking retirement experiences and marital satisfaction: A mediational model. *Psychology and Aging*, *8*, 508-516.
- Jahoda, M. (1982). *Employment and unemployment: A social psychological analysis*. Cambridge, England: Cambridge University Press.
- Johns, G. (1991). Substantive and methodological constraints on behavior and attitudes in organizational research. *Organizational Behavior and Human Decision Processes*, *49*, 80-104.
- Johns, G., & Nicholson, N. (1982). The meanings of absence: New strategies for theory and research. *Research in Organizational Behavior*, *4*, 127-172.
- Jöreskog, K. G., & Sörbom, D. (1989). *LISREL 7: User's reference guide*. Mooresville, IN: Scientific Software.
- Kelloway, E. K., & Barling, J. (in press). Stress, control, well-being and marital satisfaction: A causal correlational analysis. In S. L. Sauter (Ed.), *Job stress 2000: Emerging issues*. Washington, DC: American Psychological Association.
- Kingston, P. W. (1990). Illusions and ignorance about the family-responsive workplace. *Journal of Family Issues*, *11*, 438-454.
- Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983). A model of work, family and interrole conflict: A construct validation study. *Organizational Behavior and Human Performance*, *32*, 198-215.
- Kossek, E. E. (1990). Diversity in child care assistance needs: Employee problems, preferences and work-related outcomes. *Personnel Psychology*, *43*, 769-791.
- Leigh, J. P. (1991). Employee and job attributes as predictors of absenteeism in a national sample of workers: The importance of health and dangerous working conditions. *Social Science and Medicine*, *33*, 127-137.
- Long, J. S. (1983). *Covariance structural models: An introduction to LISREL*. Beverly Hills, CA: Sage.
- MacBride-King, J. (1990). *Work and family*. Ottawa, Ontario, Canada: Conference Board of Canada.
- MacEwen, K. E., & Barling, J. (1991). Effects of maternal employment

experiences on children's behavior via mood, cognitive difficulties, and parenting behavior. *Journal of Marriage and the Family*, 53, 635-644.

MacEwen, K. E., & Barling, J. (1992). *Organizational predictors and consequences of interrole conflict*. Manuscript submitted for publication.

MacEwen, K. E., Barling, J., & Kelloway, E. K. (1992). Effects of short-term role overload on marital interactions. *Work and Stress*, 6, 117-126.

Poulschock, S. W., & Deimling, G. T. (1984). Families caring for elders in residence: Issues in the measurement of burden. *Journal of Gerontology*, 39, 230-239.

Pratt, L. I., & Barling, J. (1988). Differentiating between daily events, acute and chronic stressors: A framework and its implications. In J. R. Hurrell, L. R. Murphy, S. L. Sauter, & C. L. Cooper (Eds.), *Occupational stress: Issues and development in research* (pp. 41-53). London: Taylor & Francis.

Repetti, R. L. (1989). Effects of daily workload on subsequent behavior during marital interaction: The roles of social withdrawal and spouse support. *Journal of Personality and Social Psychology*, 57, 651-659.

Rosenwaikie, I. A. (1985). Demographic portrait of the oldest old. *Milbank Memorial Fund Quarterly*, 63, 187-205.

Scharlach, A. E., Lowe, B. F., & Schneider, E. L. (1991). *Elder care and the work force: Blue print for action*. Lexington, MA: Lexington Books.

Spilerman, S., & Schrank, H. (1991). Responses to the intrusion of family responsibilities in the workplace. *Research in Social Stratification and Mobility*, 10, 27-61.

Trading places. (1990, July 16). *Newsweek*, pp. 48-54.

The tragedy of old age. (1991). *Canadian Medical Association Journal*, 145, 1472-1473.

Walker, A. J., Martin, S. S. K., & Jones, L. L. (1992). The benefits and costs of caregiving and care receiving for daughters and mothers. *Journal of Gerontology*, 47, S130-S139.

Received January 29, 1993  
 Revision received November 26, 1993  
 Accepted November 26, 1993 ■



**AMERICAN PSYCHOLOGICAL ASSOCIATION  
 SUBSCRIPTION CLAIMS INFORMATION**

Today's Date: \_\_\_\_\_

We provide this form to assist members, institutions, and nonmember individuals with any subscription problems. With the appropriate information we can begin a resolution. If you use the services of an agent, please do NOT duplicate claims through them and directly to us. **PLEASE PRINT CLEARLY AND IN INK IF POSSIBLE.**

PRINT FULL NAME OR KEY NAME OF INSTITUTION _____		MEMBER OR CUSTOMER NUMBER (MAY BE FOUND ON ANY PAST ISSUE LABEL) _____	
ADDRESS _____		DATE YOUR ORDER WAS MAILED (OR PHONED) _____	
CITY _____ STATE/COUNTRY _____ ZIP _____		<input type="checkbox"/> PREPAID <input type="checkbox"/> CHECK <input type="checkbox"/> CHARGE CHECK/CARD CLEARED DATE: _____	
YOUR NAME AND PHONE NUMBER _____		(If possible, send a copy, front and back, of your cancelled check to help us in our research of your claim.)	
		ISSUES: <input type="checkbox"/> MISSING <input type="checkbox"/> DAMAGED	
TITLE _____	VOLUME OR YEAR _____	NUMBER OR MONTH _____	
_____	_____	_____	
_____	_____	_____	

*Thank you. Once a claim is received and resolved, delivery of replacement issues routinely takes 4-6 weeks.*

(TO BE FILLED OUT BY APA STAFF)

DATE RECEIVED: _____	DATE OF ACTION: _____
ACTION TAKEN: _____	INV. NO. & DATE: _____
STAFF NAME: _____	LABEL NO. & DATE: _____

Send this form to APA Subscription Claims, 750 First Street, NE, Washington, DC 20002-4242

**PLEASE DO NOT REMOVE. A PHOTOCOPY MAY BE USED.**