Daily consequences of work interference with family and family interference with work

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Daily consequences of work interference with family and family interference with work

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Keywords: Inter-role conflict; Marital interactions; Family; Strain; Anxiety; Depression.

This study proposes that inter-role conflict and its consequences fluctuate on a daily basis, and that both family interference with work and work interference with family should be investigated. The authors propose a model in which the two types of inter-role conflict predict strain (cognitive difficulties, anxiety and depression), which in turn predicts marital behaviour (withdrawal and anger). Specifically, cognitive difficulties and anxiety are proposed to predict withdrawal from marital interactions, and depression to predict angry marital interactions. Also, the authors predict that interference of work with the family will be related to withdrawal from the family, and interference of the family with work to withdrawal from work. Using data collected from 19 men and 21 women over an average of 18 work days, overall support was found for the authors' model, which was tested using path analysis. There were some notable differences between the men and women in the pattern of the relationships between the two types of inter-role conflict and strain. It is concluded that a daily approach is a viable way to study inter-role conflict, that both directions of conflict should be studied, and that doing so may yield some insight into how men and women experience inter-role conflict differently.

1. Introduction

One of the most commonly studied variables in the literature on the interface between the domains of work and family is conflict between the roles of worker and family member, or inter-role conflict. Inter-role conflict occurs when demands in one role are incompatible with the demands of another role. Most of the research on inter-role conflict has been conducted on a cross-sectional basis, or on a short-term longitudinal basis (e.g. MacEwen and Barling 1988). However, the very nature of inter-role conflict is such that it might fluctuate on a daily basis and have more immediate consequences than can be studied using cross-sectional or short-term longitudinal data. Furthermore, most of this research has studied how work interferes with the family, ignoring the possibility that family demands can also interfere with work (Crouter 1984). In this study, the authors propose that daily measures of inter-role conflict are more reflective of actual experiences of inter-role conflict, as are measures of inter-role conflict including both work interference with family and family interference with work.

In a previous study (Barling and MacEwen 1992a), it was shown that there is variation in inter-role conflict on a daily basis—both work interference with family and family interference with work—encouraging the idea that daily studies of inter-role conflict provide a closer

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approximation to reality than cross-sectional or longitudinal studies. That is, inter-role conflict may be characterized by variability across days rather than stability across time. It is not difficult to imagine how the extent to which the demands of one role are incompatible with the demands of another role could change on a daily basis. For example, a sick child may interfere with a parent's business meeting on one day, but on the next day, when the child is better and it is the weekend, there may be no interference between work and family demands. The need to work overtime may interfere with a planned family activity one night, but the following night when there is no overtime, the parent may experience no interference between work and family plans. This daily approach to inter-role conflict is consistent with research finding that other role experiences, in particular role overload, vary on a daily basis (Lang and Markowitz 1986, MacEwen et al. 1992, Repetti 1989); indeed, other recent research on inter-role conflict has adopted a daily approach (e.g. Bolger et al. 1989, Williams et al. 1991).

Researchers have tended to focus on how work affects the family rather than also considering how the family affects work (Crouter 1984); this is probably because interest in inter-role conflict developed simultaneously with the concern over deleterious effects of maternal employment. In the case of maternal employment, the concern was that work would interfere with the family role, and childcare in particular. However, inter-role conflict is also predicted by organizational factors such as satisfaction with organizational policies and role overload (Greenhaus et al. 1989, MacEwen and Barling 1992), and it has consequences for the organization (Duxbury and Higgins 1991, MacEwen and Barling 1992). The interference of family with work, then, may become increasingly interesting to organizations as research indicates that inter-role conflict has organizational implications.

If inter-role conflict does vary on a daily basis, and if there are two types of inter-role conflict that should be considered to reflect inter-role conflict more completely, then it is likely that the consequences of inter-role conflict also vary on a daily basis, and that we should consider consequences of both types of inter-role conflict. The authors have conducted several studies that have been consistent in their findings that a mediational model describes the impact of inter-role conflict on the family and on work. This general model includes a set of role stressors as its first stage, and a set of behaviours as the endpoint (e.g. marital behaviours, work performance, parenting and child behaviour). The mediating stage consists of different types of personal strain resulting from the stressors and leading to the end behaviours. The authors have found that different types of strain (mood and cognitive difficulties) exert different effects on behaviours toward other family members, including parenting behaviours (Barling et al. 1993, MacEwen and Barling 1991) and marital behaviours (Barling and MacEwen 1992b, MacEwen et al. 1992). A portion of this model has been tested on a daily basis (MacEwen et al. 1992). It was found that daily role overload affects marital behaviours via personal strain (depression and anxiety), and that different types of strain predict different marital behaviours. However, the model has not been tested on a daily basis using inter-role conflict as the stressor, nor has the mediating role of cognitive difficulties been assessed on a daily basis. Lastly, the authors are not aware of any research testing the daily consequences of family interference with work. Goff et al. (1990) and Gutek et al. (1991) adapted Kopelman et al.'s (1983) scale as did the authors (Barling and MacEwen 1992a) by adding another item to reflect family interference with work in addition to work interference with the family. However, Goff et al. (1990) combined the two types of inter-role conflict into one scale and did not examine the effects of the two types of inter-role conflict separately.

Williams et al. (1991) suggested that inter-role conflict produces personal strain because it involves an interruption of goal-directed activity. They suggest that conflict between roles is especially disruptive because it is very difficult to satisfy the demands of competing domains, in contrast, for example, to intrarole conflict where conflicting demands occur within one
role. Williams et al. (1991) found that inter-role conflict predicts negative affect, and suggest that this is because of the demands on ‘cognitive capacity’ to deal with the incompatible demands. They also suggest that interruption of activity in a role due to a competing demand from another role results in frustration and negative affect. They do not, however, separate the effects of cognitive difficulties and affect.

In this study three indicators of personal strain are investigated: depression, anxiety and cognitive difficulties. With respect to cognitive difficulties, it has been suggested that concentration and attention difficulties result from stressors because the stressors are over-arousing and over-tax concentrational resources (Fryer and Warr 1984). Inter-role conflict is by definition over-arousing; it involves competing demands for attention and therefore fits well with Fryer and Warr’s (1984) notion that over-arousing stressors negatively affect concentration and attention. The authors have supported the association between inter-role conflict and cognitive difficulties in different samples of employed women and men (Barling and MacEwen 1991, MacEwen and Barling 1991).

Anxiety may be the emotional partner to cognitive difficulties. Repetti (1989) suggested that role overload predicts withdrawal from marital interactions because overload produces over-arousal and a feeling of anxiety. If anxiety is the emotional manifestation of over-arousal and cognitive difficulties are the cognitive manifestation, then they may exert similar effects on behaviour.

It is also proposed here that depression mediates the relationship between inter-role conflict and its consequences. There is a substantial amount of literature indicating that stressors predict negative mood (e.g. Caspi et al. 1987, DeLongis et al. 1988) and specifically predict a relationship between stressors and depression (Barling and MacEwen 1991, MacEwen and Barling 1991, MacEwen et al. 1992).

The authors predict that the different types of strain will exert different effects on marital behaviour. Specifically, anxiety and cognitive difficulties should predict withdrawal from marital interactions, and depression should predict angry marital interactions. Interactions between depressed people and their families have been found to be negative and conflictual (Coyne et al. 1987), suggesting that depression may predict angry marital interactions. On the other hand, as Repetti (1989) suggested, anxiety and cognitive difficulties, as indicators of over-arousal, may produce the need to withdraw from marital interactions in order to reduce the sense of over-arousal.

Both types of inter-role conflict should exert the same effects on personal strain, and ultimately on marital behaviours, because the important property for predicting personal strain is over-arousal and negative affect. There is no reason to expect that one type of inter-role conflict would produce strain and the other would not.

One of the immediate or daily consequences of inter-role conflict may be that the conflict is resolved by withdrawing from, or not engaging in, an activity from the role that is experiencing interference. If work interferes with the family, then one would expect that the conflict would be resolved by withdrawing from the family so that the work demand could be fulfilled. On the other hand, if the perception is that family interfered with work, then the resolution of the conflict might be to withdraw from work. The extent to which inter-role conflict is resolved by putting energy into one domain to the avoidance of the other has not yet been studied. Goff et al. (1990) found that work/family conflict predicted absenteeism, partially suggesting that withdrawal from work occurs when inter-role conflict is high. However, they did not distinguish between the two types of inter-role conflict.

To summarize, the aim of this study is to test whether a general three-stage model that has been supported in previous cross-sectional studies can adequately reflect a daily process by which daily inter-role conflict has accompanying fluctuating effects on personal strain and
Others have conceptualized inter-role conflict as a daily variable (e.g. Bolger et al. 1989), and the authors' goal is to determine whether its effects are also daily. Also, it is suggested here that family interference with work should be considered in addition to work interference with family, and it is tested whether they both have the same direct effects on personal strain and indirect effects on marital behaviour. The authors suggest that both types of inter-role conflict predict withdrawal from the domain that is experiencing interference. Lastly, due to continuing concerns that the experience of inter-role conflict may differ for men and women, the model is tested separately for men and women. There is still a tendency for researchers investigating work/family issues to study only women (e.g. Williams et al. 1991), even though men and women seem to experience the same level of inter-role conflict (Barling 1990, Barling and Janssens 1984, Gutek et al. 1991, Holahan and Gilbert 1979). However, given that there is still evidence that men and women experience inter-role conflict differently (Duxbury and Higgins 1991, Gutek et al. 1991), it remains important to investigate men and women separately when testing models of inter-role conflict.
2. Method

2.1. Subjects and procedure
Volunteers were recruited to participate in the study through the police department of a large Canadian city. To qualify, participants had to be employed full time, be married (although their spouses need not be employed) and have at least one dependent child living at home. Thirty-seven couples volunteered, 19 couples and 2 women (whose husbands chose not to participate) ultimately participated. Subjects were asked to complete daily reports for 35 days, but the analyses were completed for working days only, because work/family conflict and withdrawal from work or family cannot occur on non-work days. The average number of working days per female subject was 19, and per male subject it was 17. The data were analysed in terms of person/days (Caspi et al. 1987): 379 for the women and 327 for the men. For couples where both partners completed all 35 daily reports, payments of US$50.00 were made.

On average, the men were 35 years old (SD = 5.41), had been married for an average of 8 years (SD = 5.69), and had on average 14 years of education (SD = 1.58). The women were on average 33 years old (SD = 4.63), had been married for an average of 8 years (SD = 5.52), and had an average of 14 years of education (SD = 1.46). All were young families, the children being on average 4 years old (SD = 3.60). The average monthly family income (including spouse's income) was $5458 (SD = $1749.19).

2.2. Measures

2.2.1. Inter-role conflict. Work interference with the family was measured using Kopelman et al.'s (1983) eight-item scale which has been found to be reliable and valid (Barling and MacEwen 1988). To assess family interference with work, the wording of the eight items in Kopelman et al.'s (1983) scale was changed (e.g. 'My work took up time I'd rather have spent with my family' was changed to 'My family took up time I'd rather have spent working'). Both scales were internally consistent for the men (alpha = 0.90 for work interference with family, and alpha = 0.84 for family interference with work) and for the women (both alphas = 0.84).

2.2.2. Personal strain. This was measured using three items, one each for cognitive difficulties ('I felt able to concentrate on what I was doing, and was mentally alert and wide awake'), depression ('I felt depressed and sad'), and anxiety ('I felt anxious and uptight'). Although the reliability of these scales cannot be ascertained, the authors have used the same one-item scales to assess depression and anxiety in other research (MacEwen et al. 1992), where these scales were shown to have predictive validity.

2.2.3. Withdrawal from work and from family. This was measured using four items for work withdrawal and three items for family withdrawal. Subjects were asked to indicate whether they had spent time during work on the telephone taking care of family concerns (scored 1), were late for work due to family demands or had to leave work early due to family depends (each scored 2), or missed a day's work to deal with a family issue (scored 3). To report their withdrawal from family, subjects indicated whether or not they spent time at home doing job-related work (scored 1), were late for a family activity due to work (scored 2), or missed a family activity due to work (scored 3). Items were weighted differently to reflect the relative amounts of withdrawal involved by each item; hence, items indicating greater withdrawal were accorded greater importance. Men reported at least one form of work withdrawal on 19% of
days, and some family withdrawal on 13% of days. For women, work withdrawal occurred on 26% of days, and family withdrawal on 19% of days.

2.2.4. Marital behaviours. These were assessed using 31 items from Repetti's (1989) marital behaviour scale that was originally adapted from the Spouse Observation Checklist (Weiss and Perry 1983). The 'anger' scale has 19 items, the 'withdrawal' scale 12 items, and all behaviours are rated as 'occurred', 'did not occur', or 'not applicable' during the day in question. The scales were internally consistent for both the men and women (withdrawal: alpha = 0.83 and 0.86, respectively; anger: alpha = 0.94 for both).

3. Results
The model was tested using path analysis. Descriptive data and intercorrelations are presented in tables 1 (for men) and 2 (for women).

Two confirmatory path analyses were conducted: one for the men and one for the women. This involved computing a series of hierarchical regression equations to derive standardized beta weights for each of the proposed paths in the model. All proposed paths except one were significant in the men's model (figure 2). In previous studies, cognitive difficulties were found

<table>
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<th>Table 1. Descriptive data and intercorrelations for men</th>
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<tr>
<td>Mean</td>
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<tr>
<td>1. Work interference with family 18.79</td>
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<td>2. Family interference with work 13.26</td>
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<tr>
<td>3. Anxiety 1.97</td>
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<td>4. Depression 1.75</td>
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<td>6. Marital withdrawal 12.35</td>
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<td>7. Marital anger 20.89</td>
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<td>8. Withdrawal from family 0.36</td>
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<td>9. Withdrawal from work 0.41</td>
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*p<0.05; **p<0.01.

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<th>Table 2. Descriptive data and intercorrelations for women</th>
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<tr>
<td>Mean</td>
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<tr>
<td>1. Work interference with family 20.85</td>
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<tr>
<td>2. Family interference with work 15.07</td>
</tr>
<tr>
<td>3. Anxiety 2.16</td>
</tr>
<tr>
<td>4. Depression 1.79</td>
</tr>
<tr>
<td>5. Cognitive difficulties 3.80</td>
</tr>
<tr>
<td>6. Marital withdrawal 12.48</td>
</tr>
<tr>
<td>7. Marital anger 21.05</td>
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<td>8. Withdrawal from family 0.30</td>
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<tr>
<td>9. Withdrawal from work 0.30</td>
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*p<0.05; **p<0.01.
to be a predictor of marital withdrawal. However, this was not found in the present study. For the women, three paths failed to reach statistical significance (figure 3). Interference of the family with work did not predict anxiety or depression, and, as for the men, cognitive difficulties did not predict withdrawal marital behaviour.

In addition to evaluating the statistical significance of each of the individual paths, the overall goodness of fit of the model to the data was also assessed. To do this \( Q \) was computed, which is a ratio of the generalized variance explained by the proposed model to the generalized variance that would be explained by a model in which all paths are proposed to differ significantly from zero (Pedhazur 1982). The closer \( Q \) is to unity, the better the fit of the model.

For the men \( Q = 0.82 \) and for the women \( Q = 0.84 \). There is also a significance test for \( Q \) which is an \( \chi^2 \) approximation with degrees of freedom equal to the number of paths proposed in the model to differ significantly from zero. \( W \) is highly dependent on sample size, with large sample sizes increasing the probability of finding a significant \( W \) despite a good fit of a model to the data. For the women, \( W = 27.66 \) (\( N = 379, \text{df} = 15 \)), \( p > 0.01 \); and for the men \( W = 27.00 \) (\( N = 329, \text{df} = 15 \)), \( p > 0.01 \). The model therefore was a good fit to the data for both the men and women, as calculated using \( W \), despite the large sample sizes involved.

![Figure 2. Tested model—men.](Image)
4. Discussion

Overall, the proposed model was supported for both the men and the women. Both types of inter-role conflict indirectly predicted marital behaviour via personal strain. Also, different types of personal strain predicted different marital behaviours: anxiety predicted withdrawal from marital interactions, and depression predicted angry marital interactions. Each type of inter-role conflict also had its predicted effect on withdrawal from the domain that was perceived to be experiencing interference. That is, for both the men and the women, interference with work by the family predicted family withdrawal, and interference with the family by work predicted work withdrawal.

There were certain proposed paths that were not significantly greater than zero. Cognitive difficulties did not predict withdrawal from marital interactions for either men or women. Rather, the emotional partner of cognitive difficulties, namely anxiety, predicted marital withdrawal. Perhaps it is the emotional strain stemming from a stressor that produces negative outcomes. In previous studies the authors have not examined cognitive difficulties and anxiety together. Perhaps cognitive difficulties previously emerged as a predictor of withdrawal behaviour (MacEwen and Barling 1991) because anxiety was not assessed, anxiety may have been the responsible factor in predicting withdrawal, and because cognitive difficulty is correlated with anxiety (r = 0.32 for the men and 0.45 for the women in this study), cognitive difficulties appeared to predict withdrawal.
A central proposal of this study was that inter-role conflict should be studied on a daily basis, because it is more realistic to assume daily fluctuations in inter-role conflict than to assume a constant level of conflict between work and family roles. Given that the model fits the data for the men and the women, it seems that a daily approach is a useful way to study inter-role conflict. There certainly appear to be daily consequences of inter-role conflict. However, the specific nature of those consequences may depend on gender.

Two predicted paths from interference of the family with work were not significant for the women, but were significant for the men (0.50 and 0.51, respectively); these were the paths to anxiety and to depression. In contrast, the paths from interference of work with the family to anxiety and depression were highly significant for the women (0.51 and 0.55 respectively). Because standardized betas were calculated it is not possible to compare directly the size of the betas for the men and women, but it is noteworthy that within the male and female samples the pattern of the relationship between the two types of inter-role conflict and strain differed. For the women, the strength of the relationship between work interference with the family and strain was double that of the relationship between family interference with work. Perhaps traditional roles assigned to women still influence how women experience inter-role conflict. Women may experience more strain when they feel that the role which is supposed to be primary for them (i.e. family) is being interfered with, and experience relatively less strain when the family interferes with the work role that is not their traditionally primary role. For women, there may still be more personal strain attached to the feeling that one is neglecting one's family because work is interfering with the family, then if sacrifices must be made at work to accommodate family demands.

For the men, in contrast to the women, the betas for the paths between interference of family with work and anxiety and depression were approximately double the size of the betas for the work interference with family paths. Like women, men may still experience greater strain when their traditionally primary role is interfered with (i.e. the work role) than when it is their traditionally secondary role (i.e. the family) that is experiencing interference. In addition to supporting the importance of considering both types of inter-role conflict, these findings reflect on some possible differences in the way men and women experience inter-role conflict. Inter-role conflict may indeed continue to be experienced differently by men and women, and this difference would be masked if we continue to either incorporate both types of inter-role conflict into one measure, or study only work interference with the family. Both types of inter-role conflict affect personal strain, but how they do that may depend partly on the gender of the person experiencing the specific type of inter-role conflict.

As predicted, interference of work with family predicted withdrawal from the family, and interference of the family with work predicted work withdrawal. This result applied to both men and women. Given that both the inter-role conflict and withdrawal measure were continuous, one can also conclude that the greater the level of each type of inter-role conflict the greater the withdrawal from the domain that is experiencing interference.

One question that remains from this study is whether the results are occupation-specific, and do not generalize beyond police personnel. While generalizability is an empirical question, the authors would argue that the results are not limited to policing. First, it was decided to conduct this study within a police department not as a study on policing per se, but rather to use policing as one situation in which to study marital functioning where one partner is employed on a rotating shift system. Moreover, none of the items in the questionnaire was specific to policing, and only one member of each couple was employed in the police department. Nonetheless, in the final analysis, this issue of generalization must be answered empirically in future studies.
One caution that must always be made in studies proposing directional paths between variables is that support for one particular causal model does not rule out alternative models with different directions of causality, or with bidirectional effects. The authors' data only permit the conclusion to be made that support was obtained for the particular directional propositions in the model tested. We should note, however, that studies using longitudinal data provide some support for the directional effects found in this study (Higginbottom et al. 1993, MacEwen et al. 1992). Nonetheless, future studies should focus more specifically on issues of reverse causality and bidirectionality, particularly because there are suggestions that family stressors also affect work performance (Barling 1990, Kriegsmann and Hardin 1974).

In conclusion, this study supports the importance of studying inter-role conflict on a daily basis, shows how work/family interference and family/work interference exert different effects, and suggests that although men and women may exhibit similar levels of inter-role conflict, their experience of conflict between work and the family may still be influenced by traditional gender roles.

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