Work stressors, gender differences and psychosomatic health problems

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Two consistent problems in research assessing the work stress/health relationship are identified, namely, the tendency (a) to ignore possible gender differences in the association between work stressors and health, and (b) to assess work status (i.e., whether an individual is employed or not) rather than the experience of unique work stressors. This study focuses on the relationship between health problems and work involvement, job satisfaction and role conflict for 91 males and 56 females, all in full-time employment with at least one dependent child. Role conflict and job dissatisfaction predicted health problems of females, but not of males, while work involvement was not associated with health for either gender. The role conflict/health relationship differed significantly for males and females, although the job dissatisfaction/health relationship did not.

The dichotomy between emotional outcomes arising from work (e.g., job dissatisfaction and role conflict) and intrinsic work aspects (e.g., job involvement); the importance of gender role expectations on the working mother and father; and the differential experiences of work of males and females are suggested as possible factors accounting for the different patterns of relationships. Some suggestions for further research are offered.

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Twee probleme word geïdentifiseer in navorsing om die werkspanning/gesondheidsverhouding vas te stel, naamlik die neiging (a) om moontlike geslagsverskille in die verhouding tussen werkspanninge en gesondheid te ignoreer en (b) om werkstatus te beraam (bv. of 'n individu werk het of nie) eerder as die ervaring van unieke werkspanninge. Hierdie studie koncentreer op die verhouding tussen gesondheidsprobleme en werksbetrokkenheid, arbeidsbevreidiging, en rolkonflik vir 91 mans en 56 vroue, almal volwassene in diens en met ten minste een afhanklike kind. Rolkonflik en onbevreidende werksoostandighede (negatiewe arbeidsbevreidiging) het die gesondheidsprobleme van vroue, maar nie die van mans nie, en werksbetrokkenheid is hier geen geslag met gesondheid in verband gebring nie. Die rolkonflikgesondheidsverhouding het betekenisvol verskil vir mans en vroue, alhoewel dit nie die geval was met die verhouding tussen negatiewe arbeidsbevreidiging en gesondheid nie.

Die digotomie tussen emosionele uitvoeisels uit mense se werk (bv. negatiewe arbeidsbevreidiging en rolkonflik) en intrinisieke werksaanskepe (bv. werksbetrokkenheid); die belangrikheid van geslagsoorverwagings van die werkende moeder of vader; en mans en vroue se verskillende werkerverwante word voorgestel as moontlike faktore wat verantwoordelik is vir die verskillende verhoudingspatrone. 'n Paar voorstelle vir verdere navorsing word aanbeveel.


The effects of work stress on individual health have received prominent attention at least since the 'Executive Monkey' studies (Brady, 1958), and interest in this topic continues unabated (Kahn, 1981). This continued focus derives from the hypothesized effects of work stress on the individual and the organization. From the individual's perspective, extreme work stress has been considered as a possible cause of death (Levinson, 1982). The enormous costs organizations incur as a function of work stress (e.g., increased health insurance premiums, health-related absenteeism, productivity losses as a result of stress-related health problems) are also apparent (Naditch, 1981). Nonetheless, research conducted to date presents a truncated perspective of the interdependence of work stress and health for two major reasons.

In the first instance, until recently the predominant assumption has been that any relationship between work stress and health is similar for males and females, despite data suggesting they experience work differently (Haw, 1982; Northcott, 1980; Perun & Bieby, 1981). Second, research often contrasts employed and non-employed individuals. Yet work status (i.e., employed or not) does not predict health consistently (Haw, 1982; Kahn, 1981; Newberry, Weissman & Myers, 1979; Northcott, 1980). Although occupational (i.e., hierarchical) status is related to health and mortality (Jahoda, 1982), such data provides no information about the work stress/health relationship either between or within occupations. On the contrary, assessing work-related stressors like job tension (French & Caplan, 1973), or even characteristics associated with diverse occupational tasks (Welner, Marten, Wochnik, Davis, Fishman & Clayton, 1979), facilitates the prediction of subsequent health.

Research assessing the effects of involuntary unemployment on health problems (Cobb & Kasl, 1977) has typically used an employed versus unemployed dichotomy, assuming that unemployment is inevitably stressful. On the other hand, research assessing the effects of working outside the home in contrast to no employment outside the home implicitly assumes that non-employed individuals (e.g., non-employed mothers) experience no stress, which may be totally unfounded (Smith, 1981). Clearly, specific psychological experiences are associated with the objective event of employment or unemployment must be considered in order to reconcile these conflicting assumptions. The fact that research typically yields no health differences between working and non-working women may be as much a function of the stress on non-working women being equivalent to that experienced by their employed counterparts as the lack of stress experienced by both groups. In addition,
this approach erroneously assumes that all working individuals experience the same work stressors, at the same levels. Warr and Parry (1982) now question the justification of any research contrasting the well-being of employed and unemployed women. Even when health differences do emerge between employed and unemployed individuals (Kahn, 1981), it remains uncertain whether it is the experience of employment or unemployment that is associated with health status (Jahoda, 1982).

Given that there are no consistent consequences associated with the employed/non-employed dichotomy (Bronfenbrenner & Crouter, 1982), an alternative methodology is required for assessing any effects of work stressors. It is suggested that if any effects of work stress on health are to be assessed, withingroup analyses focusing on specific subjective work-related stressors (e.g., dissatisfaction, role conflict, involvement) are appropriate (Kahn, 1981), since not all working individuals experience the same stress at the same intensity. Moreover, given the diverse work stressors experienced by males and females, it is imperative that any analyses investigate specifically whether differential work stressors relate to health differently for men and women.

Accordingly, the present research assesses the extent to which the individual health of males and females can be predicted differentially from one intrinsic work variable (job involvement) and two emotional outcomes arising from work (namely, job satisfaction and role conflict/strain). Job satisfaction has proved to be a significant predictor of longevity (Work in America, 1978), and related to coronary heart disease (CHD) (House, 1974). Yet CHD provides too specific, and longevity too global an indication of current psychosomatic health status. Role conflict and psychological strain have been found to be associated (French & Caplan, 1973); however, the role conflict in French and Caplan’s research referred to conflict concerning one’s role in the organization (i.e., intrarole conflict), rather than the amount of conflict between one’s life roles such as parent, worker, spouse and self (i.e., interrole conflict).

Method
Subjects and Procedure
Questionnaires were distributed to selected employees in two organizations in South Africa, namely, a private financial institution (bank) and a government organization (transport). Pre-selection occurred in terms of two variables: respondents had to be married, with at least one dependent child living with them. Of the 250 questionnaires distributed (approximately equal numbers within each organization), 147 (58.8%) usable responses were returned: 72 from employees in the bank, 75 from employees in the national transport organization. The ratio of males to females did not differ across the two organizations. These subjects (91 males, 56 females) ranged in age from 20–60 years (M = 37 years), and there were no significant age differences between males and females. All the questionnaires were completed voluntarily and anonymously.

Assessment
Individual health
Cooper and Marshall’s (1978) slight modification of the Psychosomatic Symptom Checklist (Gurin, Veroff & Feld, 1960) was used to assess psychosomatic aspects of health. Twenty-four psychosomatically-related health problems believed to be stress induced, were included. Twenty symptoms (e.g., insomnia, headaches, upset stomach, heart palpitations) were rated in terms of the frequency of their occurrence over the previous three months. On the remaining four items, subjects indicated whether they had ever experienced particular problems (e.g., felt they were going out of their minds, bothered by bodily pain, prevented from doing what they wanted to by health problems). The reliability of the scale is satisfactory (KR 20 = 0.85, in the present sample).

Work involvement
Warr, Cook and Wall’s (1979) 6-item scale was used to assess work involvement. This specific measure focuses on work involvement in general rather than involvement with a specific, current job. Warr et al., (1979) report that test–retest reliability has been demonstrated (0.56 over a six month period).

Job satisfaction
Warr et al.’s (1979) 16-item unidimensional job satisfaction measure was used. The global score comprises two aspects central to job satisfaction, namely intrinsic and extrinsic dimensions. Satisfactory test–retest reliability (0.63) has been demonstrated over a six-month period (Warr et al., 1979).

Role strain/conflict
This was assessed using Parry and Warr’s (1980) reliable and valid 12-item Interaction Strain questionnaire. Each of the 12 items is relevant to the work versus family dilemma. Although this scale was originally constructed for mothers only, it was administered to mothers and fathers in this research: Previous research suggests no sex differences in role conflict (Holohan & Gilbert, 1979), and the interaction strain of mothers and fathers did not differ in the present research using Parry and Warr’s (1980) scale (Mothers: M = 25.73; fathers: M = 27.9; p > 0.05).

Results
Females reported significantly more psychosomatic health symptoms and complaints than males [M: 40.89 versus 36.26; t (145) = 3.90; p < 0.001]. Similarly, females were more satisfied with their jobs than their male counterparts [M: 84.12 versus 78.91 respectively; t (145) = 2.19; p < 0.05]. However, males were more involved with their work than females [M: 35.76 versus 31.13 respectively; t (145) = 3.86; p < 0.05]. As mentioned previously, males and females did not differ from each other in terms of role strain/conflict [r (145) = 1.32; p > 0.05].

The pattern of correlations between work experiences or stressors and health differed for men and women (see Table 1). There was a significant correlation between health and role conflict [r (54) = 0.59; p < 0.001] and health and job dissatisfaction [r (54) = 0.38; p < 0.004] for women. However, the corresponding correlations for men were not significant. In addition, the difference between the role conflict and

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<th>Table 1</th>
<th>Gender differences in Pearson correlations between work stressors and health problems</th>
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<td>Males</td>
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<tr>
<td>Inter-role conflict</td>
<td>r = 0.14</td>
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<tr>
<td>Job satisfaction</td>
<td>r = 0.12</td>
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<td>Work involvement</td>
<td>r = 0.09</td>
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*p < 0.001, †p < 0.01.
health relationship for men and women was statistically significant ($z = 3.10; p < 0.01$), while the job dissatisfaction/health relationship was not. Finally, the association between work involvement and health was not significant for either men or women ($r^2 < 0.1$ in both instances).

**Discussion**

The results of the present study suggest that the prediction of psychosomatic health from work stressors can be enhanced by (a) identifying particular work-related stressors and experiences rather than merely focusing on employment status, and (b) assessing the work stress/health relationship separately for males and females. Both role conflict and job dissatisfaction were related to health problems for women, although job involvement was not. Two factors may account for this. Role conflict and job dissatisfaction are both outcomes of work. On the other hand, job involvement may be viewed as intrinsic to the work itself. That emotional outcomes of work are associated with individual well-being is consistent with previous research (French & Caplan, 1973; House, 1974; Work in America, 1978). Moreover, work-related outcomes and intrinsic work aspects affect family functioning differently. Husbands' job involvement is not related to wives' marital satisfaction (Barling, in press); neither was maternal job involvement associated with their children's behavioural problems (Barling & Van Bart, 1984). On the contrary, husbands' job satisfaction is a significant predictor of wives' marital satisfaction (Barling, in press), while maternal job satisfaction is negatively associated with their preschool daughters' conduct problems (Barling & Van Bart, 1984), and fathers' job satisfaction is associated with their children's conduct problems (Barling, 1984). In searching for work-related variables that impact on well-being (Kahn, 1981), possible differential effects arising from intrinsic work aspects in contrast to emotional outcomes from work should be considered.

The differential associations between work stress and health for men and women are noteworthy. Whereas role conflict and job dissatisfaction were related to women's health, neither role conflict, job dissatisfaction nor work involvement predicted men's health. A number of factors may account for this gender discrepancy. First, there are increasing suggestions that men and women experience work differently (Haw, 1982; Northcott, 1980). Second, societal expectations regarding the working father and the working mother differ (Barling & O'Leary, 1983). Whereas fathers are expected to work (Bronfenbrenner & Crouter, 1982), widespread condemnation of the working mother based on the deficit-oriented deprivation hypothesis prevails (e.g., Fallows, 1983). In addition, the number of roles the working mother must fulfill increases (Cooper & Davidson, 1979). Consequently, job dissatisfaction and role conflict may be experienced by fathers as part of a normal situation, and not as work stressors. It follows that job dissatisfaction and role conflict are not precursors of working fathers' health problems. For working mothers, however, societal expectations and disapproval might heighten the salience of role conflict and job dissatisfaction, enhancing their function as work stressors. In differentially predicting males and females health problems from work stressors, greater importance should be accorded to role conflict than job dissatisfaction. Although both role conflict and job dissatisfaction were related to women's health problems, there were significant differences between the role conflict/health relationship for men and women, while significant differences did not emerge between these two groups for the job dissatisfaction/health relationship. Moreover, for women role strain accounted for substantially more of the variance in health problems than did job dissatisfaction (34,81% versus 13,69% respectively).

One potential criticism of this research derives from the fact that all data were obtained from a single source. In such situations, autocorrelational confounds (which result in low but significant positive associations between all variables) usually cannot be excluded. However, this argument is most implausible in the present study given the differential correlations between intrinsic work aspects and emotional outcomes for males and females. Nonetheless, future research might profitably focus on the use of external (e.g., physicians' reports) and behavioural (e.g., number of visits to a doctor, health-related absenteeism) indices of health. In addition, future research ought to focus on moderator variables (other than gender) that buffer or exacerbate the work stress/health relationship. For example, the general stress/illness relationship is buffered consistently by the three components of the Hardy personality namely, commitment, control and challenge (Kobasa, 1982) and exacerbated by the presence of child-rearing responsibilities (Haynes & Feinilb, 1980). Additional considerations for future research should include the pre-experimental control of gender differences in psychosomatic health status, as well as the importance of occupational level as a moderator of the health/work stress relationship.

Any information about variables that buffer or exacerbate the work stress/health relationship might be most useful to organizations: they provide relevant information for subsequent organizational interventions. Notwithstanding the obvious suffering to the individual concerned, organizations incur substantial costs from stress-related health problems, such as increases in health insurance coverage (Naditch, 1983). The organizations’ responsibility to employees and itself, therefore, is not merely a question of ethics, but also involves possible reductions in expenditure through the provision of adequate services and structures to reduce work-related stress. For example, since maternal role conflict which is associated with child abuse (Gelles & Hargreaves, 1981) and children's behavioural problems (Barling & Van Bart, 1984) is less among working mothers in flexitime schedules (Barling & Barenbrug, 1984) and productivity may be enhanced indirectly through the implementation of flexitime systems (Narayanan & Nath, 1982), such structural interventions should seriously be considered.

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