

A Process Model for Understanding Links Between
Women's Work Conditions and Marital Adjustment
in Two-Earner Couples

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ABSTRACT

The present study examined the relations among women's work conditions, women's experiences of stress, and marital adjustment in two-earner couples. Following Pearlin, Lieberman, Menaghan, and Mullan's (1981) life strains model of the stress process and subsequent research by Kandel, Davies, and Raveis (1985), it was hypothesized that conditions encountered in the workplace (e.g., overload) could be viewed as occupational life strains and thus have the potential for eliciting global stress (e.g., depression) through their relations with situation-specific stress (e.g., occupational stress). Second, it was hypothesized that women's work conditions would be associated with women's and men's marital adjustment. This study also explored the extent to which women's feelings of stress mediated the relations between women's work conditions and women's and men's perceptions of marital adjustment.

Participants ($N = 86$) were employed women and their employed spouses from Victoria, B.C. Data for the analyses were from questionnaires completed during Summer 1988. Measures were women's work conditions (total work hours, socio-economic status, work schedule inflexibility, role overload, noxious work environment, inadequacy of rewards, and depersonalization); women's stress (occupational

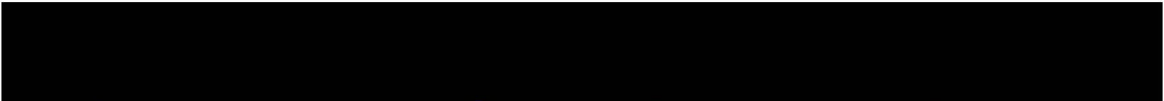
stress, role strain, depression, anxiety, and mood); and women's and men's marital adjustment (marital cohesion, marital consensus, and marital satisfaction).

The data were analyzed using principal components analyses and structural equation modeling techniques. Results showed that first, work overload and low rewards were associated with women's work stress, and work status was associated with women's work stress and women's global stress. Second, women's work stress was associated with increased global stress. Third, women's stress mediated a spillover process from women's work conditions to women's marital adjustment. Fourth, women's marital adjustment and women's stress mediated a crossover process from women's work conditions to men's marital adjustment. The discussion centers around implications of women's work conditions for women's stress and for marital adjustment in two-earner couples. Social policy implications and suggestions for future research are also presented.

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CHAPTER I

INTRODUCTION

The steady influx of women into the Canadian labour force in recent decades has been perhaps the most dramatic trend to affect both the workplace and the family. Over 53% of married women in Canada are currently participating in paid employment, compared to about 40% in 1975 (Lips & Colwill, 1988; Statistics Canada, 1985). This increase in employment among married women is substantially larger than the changes among never married women (59% to 64%), divorced women (59% to 64%), and widows (19% to 17%) across comparable years (Statistics Canada, 1985). Some women have moved up the occupational hierarchy, assuming jobs with higher status and greater responsibility. A number of women are also entering jobs traditionally dominated by men (e.g., law, medicine, and engineering), thereby widening the scope of occupations in which women are employed (Harlan & Jansen, 1987; Haw, 1982; Matthews & Rodin, 1989).

Despite these changes, some authors (e.g., Reskin & Roos, 1990) caution that sex segregation within and between occupations continues to be widespread. For example, more women are entering medicine but are clustering into a small number of specialties, such as pediatrics and obstetrics. Jacobs (1989) contends that although an increased number of women are entering male-dominated occupations, they are

also leaving these occupations at high rates, with a given group only temporarily occupying positions in these jobs.

Furthermore, the majority of employed women are clustered in traditional jobs, for example, clerical and service positions, many of which are part-time (Aneshensel & Pearlin, 1987; LaCroix & Haynes, 1987; Matthews & Rodin, 1989; Nieva & Gutek, 1981; Voydanoff, 1987). According to Statistics Canada (1985), 77% of all employed women are working in one of five occupational domains: clerical, service, sales, nursing, or teaching. Some of these occupations are among the more stressful ones. For instance, in a National Institute for Occupational Safety and Health study of 22,000 men and women in 130 occupations, secretarial jobs were rated as second most stressful (cited in Belanger, 1984). Clerical and service positions are frequently characterized by pay inequity, underutilization of skills, and limited opportunities for promotion, all of which have been related to physical and psychological symptoms of stress (Greenglass, 1985; Ickovics, 1989).

Bronfenbrenner and Crouter (1982) stated that the nature of women's work has yet to be fully explored in current research. Although many studies have investigated the correlates of multiple role involvement for women, that is, women who have two or more social roles (e.g., employee, spouse, or parent), it seems that it is the

quality of experience within these roles and not the number of roles per se that is important for women's well-being (Aneshensel, 1986; Baruch & Barnett, 1986; Crohan, Antonucci, Adelman, & Coleman, 1989). Verbrugge (1986) suggested that low quality roles (e.g., a work role characterized by irregular schedules and low control) may jeopardize women's health, whereas high quality roles (e.g., a work role characterized by job complexity), even if these are numerous, may help maintain or enhance women's health. In this regard, the qualitative aspects of work roles may be defined by the specific work conditions to which job holders are exposed.

Following Pearlin, Lieberman, Menaghan, and Mullan's (1981) life strains model of the stress process, paid work can be conceptualized as a potential source of strain. Conditions encountered in the workplace (e.g., job demands) can be viewed as occupational life strains that may immediately or over time elicit stress reactions, such as increased blood pressure or psychological distress. Within this framework, occupational life strains, such as work overload and poor co-worker relations, are potentially harmful to the well-being of those exposed to them (Pearlin & Schooler, 1978).

Employed women are confronted with a variety of potentially stressful work conditions, such as too many demands, little authority, and repetitive work tasks.

These work experiences may have some negative consequences for women and their families. However, not all work experiences are potentially stressful. In fact, being employed may be beneficial to women. Employed women have reported better health than nonemployed women (Gove & Peterson, 1980; Thoits, 1983; Verbrugge, 1983; Waldron & Herold, 1986), higher self-esteem as a result of working (Coleman & Antonucci, 1983), and positive perceptions of the two-earner family lifestyle (Skinner, 1980).

Some work conditions, such as job control and job complexity, have also been associated with women's well-being. Adelman (1987) reported that job control (control over one's own and others' work) and job complexity (high variety and low repetition in work tasks) contributed to women's self-confidence. Similarly, Kohn and colleagues found that job control and job complexity were associated with low anxiety and positive self-evaluation (Kohn, 1969; Kohn & Schooler, 1973; Miller, Schooler, Kohn, & Miller, 1979). The benefits of women's employment have been found to vary, however, as a function of women's satisfaction with child care, their desire to be employed, their spouses' participation in family tasks, and their spouses' attitudes toward women's employment (Baruch, Biener, & Barnett, 1987; Menaghan & Parcel, 1990; Repetti, Matthews, & Waldron, 1989; Rodin & Ickovics, 1990).

Although there has been a moderate amount of research on the relations among various job conditions and employee health (e.g., Caplan, 1985; Kuhnert, Sims, & Lahey, 1989; LaCroix & Haynes, 1987), few studies have used samples of women employed in a variety of occupations. Moreover, few studies have examined the specific sources of and extent to which women experience stress related to their jobs (Aneshensel, 1986; Aneshensel & Pearlin, 1987; Baruch et al., 1987; Burke, 1987; Haw, 1982; Hoffman, 1989).

There is also a paucity of research investigating the associations between women's work conditions and family life. Currently, about 40% of male and female workers are a part of two-earner couples (Friedman, 1987). The prevalence of this lifestyle highlights the importance of investigating the process by which women's employment conditions (e.g., work overload) are related to aspects of family functioning. Stress experienced at work, for example, may spill over to affect the quality of family relations (Bolger, DeLongis, Kessler, & Wethington, 1989; Piotrkowski, 1979). Thus, the links between women's work and marital adjustment are of interest. Research has indicated links between men's work experiences and their spouses' marital adjustment (e.g., Barling, 1984; Burke, 1982; Repetti, 1989) as well as links between women's and men's marital relations and their respective experiences at work (e.g., Bolger et al., 1989; Piotrkowski, 1979).

However, few studies focusing on the marital relations of employed women have also collected data from their spouses.

Some models of the intersection of life at work with life at home have recently been summarized (see Zedeck & Mosier, 1990). These models, however, fail to define what it is about work that interacts with marital and family functioning or processes by which these relations occur (Zedeck & Mosier, 1990). It is not known whether women's work conditions are directly associated with women's and men's marital adjustment or if this process is mediated by factors such as women's levels of stress or either spouse's marital adjustment.

In order to gain a better understanding of the impact of women's paid work on women's and men's marital adjustment, the present study examined the relations among women's work conditions, women's stress, and marital relations in two-earner couples. The following research questions guided this study:

1. To what extent are the work conditions of women in two-earner couples related to their experiences of stress?
2. Are women's work conditions related to the quality of the marital relationship in two-earner couples as reported individually by women and their spouses?
3. Do women's levels of stress mediate the relation between their work conditions and their own as well as their spouses' perceptions of marital adjustment?

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to review the literature on women's work conditions and their relationship to personal well-being and marital relations. First, an overview of the life strains model of stress proposed by Pearlin et al. (1981) is presented to introduce the theoretical basis of this study. Second, because women often have not been considered in studies of work conditions, the research on work conditions with samples of men and combined samples of men and women is presented. Third, the literature that is relevant to the relation between women's work conditions and stress and marital adjustment is reviewed. Fourth, the role of women's stress as a mediator between women's work conditions and women's and men's marital adjustment is explored. Finally, the hypotheses underlying the present study are presented.

Pearlin's Life Strains Model of Stress

Pearlin's life strains model of the stress process provides a useful framework for investigating the relations between women's work conditions, their levels of stress, and their own as well as their spouses' marital adjustment. Pearlin's model is useful because it permits exploration of a process in which women's occupational demands (e.g., work overload) may result in feelings of stress which, in turn, may be transferred to women's relations with their spouses.

The stress process, as presented by Pearlin and colleagues, consists of three primary elements: strains, manifestations of stress, and moderators of strain and stress (Pearlin et al., 1981).

Strains

Strains refer to any set of conditions that has the potential to threaten an individual's well-being (Pearlin & Schooler, 1978). Pearlin and others assert that most strains develop from the enduring demands that individuals encounter in their daily lives as job holders, marital partners, and parents. These life strains are usually the chronic, low-keyed frustrations and hardships individuals are forced to contend with in their daily occupational experiences and family relations (Aneshensel & Pearlin, 1987; Pearlin, 1975, 1983; Pearlin & Lieberman, 1979). Life strains often arise when persistent demands create challenges and conflicts within and between social roles (e.g., worker, parent, or spouse) and may immediately or over time elicit stress reactions, such as psychological distress or physical illness (Pearlin & Lieberman, 1979).

Stress

Although stress has been defined and measured in a number of ways, most researchers view stress as an individual's response to noxious physical or psychological conditions, such as noisy work environments or marital conflict (Pearlin et al., 1981). Pearlin and Schooler

(1978) distinguish between global stress and situation-specific stress. Global stress (e.g., depression) is a diffuse affective state that develops from exposure to intense and chronic strains. Research indicates a relation between exposure to enduring life strains (e.g., work overload) in employed men and women and global stress reactions such as depression and anxiety (Galambos & Almeida, 1989; Galambos & Walters, in press; Pleck & Staines, 1985).

Alternatively, situation-specific stress is a response to a particular strain and is often isolated from other stresses in an individual's life. For example, strains experienced at work (e.g., having to meet strict deadlines) may result in an individual feeling upset or worried about his or her job performance (occupational stress). This type of stress is thought to be distinct and separate from three other situation-specific stresses: parental stress (e.g., feeling upset about disciplining one's child), marital stress (e.g., feeling anxious about an argument with one's spouse), and household economic stress (e.g., feeling worried about one's inability to pay monthly bills) (Pearlin & Schooler, 1978).

Moderators of Strain and Stress

Individuals may confront stress-provoking situations with a variety of perceptions, cognitions, and behaviours. There is also interindividual variability in responses to

the strains associated with social roles (e.g., worker, spouse). Pearlin and Schooler (1978) observed that some women and men draw on personal resources to either avoid, eliminate, or reduce the effects of stress. Their research indicates that personal characteristics, such as high self-esteem and feelings of mastery or control, buffer the impact of chronic occupational strains (e.g., work overload or depersonalizing co-worker relations) on feelings of stress. In her review of health psychology, Taylor (1990) also reported that strains perceived as predictable or controllable are typically experienced as less stressful than those that are not so appraised.

Overall, Pearlin's life strains model of stress conceptualizes stress as being embedded within the enduring demands associated with work, marital, and family roles. Life strains result in physical or psychological stress. These stress reactions can be global (e.g., anxiety) and situation-specific (e.g., occupational stress).

The Life Strains Model and Work Conditions

The literature that exists on men and women in their paid work roles (e.g., Galambos & Almeida, 1989; Kandel, Davies, & Raveis, 1985; Miller et al., 1979; Pearlin et al., 1981) illustrates the usefulness of considering paid work as a potential source of strain and ultimately stress. The demands that individuals encounter in the workplace can be viewed as life strains based on Pearlin's life strains

model of the stress process. Conditions such as work overload and inadequate financial rewards are potentially harmful to the well-being of those exposed to them (Brief, Schuler, & Van Sell, 1981; Pearlin & Schooler, 1978).

Research by Pearlin and Lieberman (1979) supports the supposition that work conditions are related to women's and men's well-being. These authors found that occupational life strains were closely associated with the psychological well-being of job holders. More specifically, work overload (e.g., job pressures and time demands), depersonalizing work relations (e.g., unfriendly co-workers), and inadequate rewards (e.g., poor pay, job insecurity) were sources of stress as measured by symptoms of anxiety and depression. Similarly, Voydanoff and Donnelly (1989) found that two measures of work strain were related to psychological distress in women and men: job pressure was associated with anxiety, and economic strain was associated with anxiety and depression.

The proposed study investigated how women's exposure to work conditions were associated with feelings of work stress (e.g., emotional upset as a result of work experiences) and global stress (e.g., depression and anxiety). The extent to which stress mediates the relationship between women's work conditions and marital adjustment in women and their spouses was also examined.

An investigation of how women's experiences in paid work are associated with their own marital adjustment as well as that of their spouses will expand our understanding of the links between women's simultaneous involvement in the workplace and the family. Typically, the domains of work and family have been studied separately, with little recognition of the possibility of overlap or continuity between them. However, the literature modeling the relations between life at work and life at home is increasing (see Zedeck & Mosier, 1990). Before investigating work-family processes though, the literature on work conditions is evaluated to indicate which aspects of the work environment seem to be important for employees' well-being.

The Study of Work Conditions

A popular approach to the study of work conditions has been to measure subjective perceptions of the work environment and to relate these perceptions to other emotional, behavioural, or health measures (Caplan, 1985). A variety of work conditions have been considered in the research. Factors such as shift work, role ambiguity, poor communication, conflict between work groups, technical changes, and job security have each been identified as a potential source of stress (Kuhnert et al., 1989). Other authors have also found that the following work conditions are negatively related to well-being: too few or too many

demands, little authority or control over tasks, high or low job complexity, repetition and routinization, supervisory responsibility for others, absence of social support, work overload, noxious physical environments, inadequate income, and low occupational status (Brief et al., 1981; Caplan, 1985; Crohan et al., 1989; Greenhaus & Parasuraman, 1986; Hibbard & Pope, 1985; LaCroix & Haynes, 1987; Muller, 1986; O'Neill & Zeichner, 1985; Tetrick & LaRocco, 1987). Although each of these work conditions may be seen in men's and women's occupations, it is important to note that women may also experience work conditions unique to their gender such as token status, sexual harassment, and sexual discrimination (Brief et al., 1981; Burke, 1987; Lips & Colwill, 1988).

According to Pearlin (1975), the impact of paid employment depends not only upon the conditions that individuals encounter during their employment but also the meaning that these conditions have for them. It is the quality of experience while in an occupational role that is important for well-being (Aneshensel, 1986; Aneshensel & Pearlin, 1987; Barnett & Baruch, 1985; Baruch & Barnett, 1986; Crohan et al., 1989; Voydanoff & Donnelly, 1989). Although a body of research exists on the relations between men's work conditions and their psychological well-being and marital satisfaction (e.g., Greenhaus, Bedeian, & Mossholder, 1987; Karasek, Triantis, & Chaudhry, 1982;

Repetti, 1989), there is little research assessing how the features of women's jobs affect the multiple aspects of their lives.

The literature on the consequences of women's work conditions for themselves and their families is scarce because, until recently, studies investigating the impact of work conditions on job holders' individual and marital adjustment have either excluded women as subjects (e.g., Abdel-Halim, 1978; Hodapp, Neuser, & Weyer, 1988) or failed to analyze the data for sex differences (e.g., Kuhnert et al., 1989; Sze & Ivker, 1986). For instance, Pearlin and Lieberman (1979) found that occupational strains impinge upon women as well as men and with a somewhat different frequency or intensity: men were more likely than women to experience work overload and depersonalizing relations in the workplace whereas women were more likely than men to experience job loss, job acquisition, and inadequate occupational rewards. There were no gender differences in experiences of noxious work environments (e.g., presence of dust or dirt, exposure to injury). These authors, however, combined their samples of men and women when they examined these occupational strains as sources of psychological stress. Thus, the extent to which these occupational strains elicited similar or different levels of psychological distress in men and women was not examined.

Men and women typically hold different types of jobs. It might be expected, therefore, that the demands, opportunities, and rewards associated with their employment experiences differ (Aneshensel & Pearlin, 1987; Barnett & Baruch, 1985; Brief et al., 1981; Burke, 1987). Women's occupations are often limited in job characteristics such as occupational status, supervisory opportunities, employer support for training and education, and salary (Crohan et al., 1989; Lips & Colwill, 1988; Nieva & Gutek, 1981; Voydanoff, 1987). For instance, on average, women in Canada earn less than 70% of the wages made by their male counterparts (Statistics Canada, 1985). This earnings ratio may mask some wide variations by occupation in the ratio of women's to men's wages.

Even when women and men occupy jobs that are labelled identically, their work is often evaluated differently or they experience different work conditions, especially with regard to power and peer relationships, prestige, and income (Barnett & Baruch, 1987; LaCroix & Haynes, 1987; Zappert & Weinstein, 1985). For example, the tasks allocated to men and women in the same job (e.g., computer programmer) have been found to differ systematically, with women performing more supplementary and support activities and fewer delegating and decision-making functions (Kraft, 1984; cited in LaCroix & Haynes, 1987). As a result, women's work experiences cannot be adequately assessed

against criteria developed solely from studies involving men (Cox, Steventon, & Cox, 1984).

Much of the research has neglected to investigate the impact of work conditions on women's lives and also may have overlooked specific features of women's jobs that are important for understanding their employment experiences (Aneshensel & Pearlin, 1987; Baruch et al., 1987; Brief et al., 1981; Zappert & Weinstein, 1985). LaCroix and Haynes (1987) have stated that the focus of research on the impact of work conditions is now turning to the identification of particular stressors within the workplace, but that such a task is complex, given the different sources of occupational stress for men and women as well as possible sex differences in work abilities and expectations, perceptions of environmental qualities, role burdens, and coping and adaptation abilities. There is some research, however, that is relevant to understanding the consequences of women's work conditions on women's stress and on couples' marital adjustment. This literature is reviewed in the following sections.

Women's Work Conditions and Stress

Some of the existing studies in the employment literature have evaluated the extent to which women's paid employment has been associated with stress (see Warr & Parry, 1982 for a review). The strength of the evidence for employment as a source of stress varies considerably

depending on the characteristics of the samples studied, the health outcomes examined, and the experimental designs used to draw conclusions (Caplan, 1985). This section presents research that has examined women's employment and stress as a function of employment status, occupational category, and exposure to specific work conditions.

Employment Status

Research investigating women's employment as a source of stress initially compared employed women with nonemployed women and, later, women employed full-time with those employed part-time (Hoffman, 1989). Reviews of this literature have reported conflicting conclusions. Baruch et al. (1987) postulated that employed women experience less stress than nonemployed women because the role of homemaker presents greater psychological demands and less control than do positions held by employed women. In contrast, Nelson and Quick (1985) proposed that employed women experience greater stress than nonemployed women because of several unique stressors faced by employed women (e.g., discrimination and stereotyping).

Rosenfield (1989) contends that women's employment does not have consistently positive effects because the increase in family power associated with employment is often offset by a high level of demands. Although the increase in family power may increase women's sense of personal control, the increase in demands experienced by

employed women, especially those who are married with children, may diminish their personal control. Her analyses indicated that women's personal control underlies the effects of family power and high demands on symptoms of depression and anxiety.

Clearly, employment status alone fails to capture the complexity of women's work experiences. The costs and benefits associated with women's employment seem to be contingent upon women's marital status and parental status (Baruch et al., 1987; Repetti et al., 1989; Warr & Parry, 1982) as well as their desire to be employed, their satisfaction with child care, their spouses' participation in family tasks, and their spouses' attitudes toward women's employment (Menaghan & Parcel, 1990; Repetti et al., 1989; Russo, 1990). Warr and Parry (1982) concluded that there is no justification for further research based solely on employment status and that multivariate investigations of women's employment and stress are needed.

Occupational Category

Other research has examined the relations between women's employment and stress based on occupational categories. This literature frequently compares blue-collar with white-collar workers (e.g., House, Strecher, Metzner, & Robbins, 1986; Waldron & Jacobs, 1988) or focuses on specific segments of the labour force, such as teachers or nurses (e.g., Cooke & Rousseau, 1984; Dewe,

1987). Repetti et al. (1989), however, cautioned that differences in physical and psychological health based on occupation may reflect differences in job characteristics, or differences in personal characteristics and home situations of women who work in different occupations. They concluded that findings from this literature are inconsistent and hard to compare because occupations have been categorized in different ways and a variety of health variables have been measured (Repetti et al., 1989).

Specific Work Conditions

A focus on specific dimensions of occupational experiences to determine precisely which aspects of jobs are associated with stress is expected to be more informative (LaCroix & Haynes, 1987; Miller et al., 1979). Yet the specific aspects of paid work that benefit or harm psychological well-being remain relatively unexplored (Adelmann, 1987).

Although women's participation in paid work need not have detrimental effects on their well-being and may improve psychological health by enhancing women's self-esteem, providing social contacts, and adding to financial resources, qualitative aspects of the workplace can potentially increase stress (Baruch et al., 1987; Matthews & Rodin, 1989; Repetti et al., 1989; Waldron & Jacobs, 1989). Some women are exposed to physical, chemical, and biological hazards on the job or suffer strain and

exhaustion due to job stress and overload. Stellman and Henifin (1983) reported that physical health hazards, such as radiation and respiratory or skin irritants, are frequently found in white-collar and service jobs and that environmental features, like lighting and noise level, may also contribute to stress.

A few models have been proposed to help identify the potentially hazardous stressors of work and the pathways by which these stressors are related to employees' well-being (see Caplan, 1985; LaCroix & Haynes, 1987). For example, Karasek (1979) proposed a two-dimensional model of occupational stress that incorporates job demands (time pressure) and job decision latitude (control over one's work activities and decision authority). His job strain model asserts that job challenges can either be health-damaging or health-promoting, depending on the level of job control afforded by the work environment.

According to Karasek (1979), individuals who work in high demand/low control jobs are likely to report the highest frequency of stress symptoms and have the highest levels of stress-related illnesses. Low demand/low control jobs, on the other hand, can lead to passivity and boredom. Low demand/high control jobs are expected to produce the lowest levels of stress symptoms, but with insufficient stimulation people can lose interest in work activities. Finally, high demand/high control jobs are expected to

produce reasonably high stress levels and high levels of social activity.

Based on Karasek's (1979) job strain model, research using samples of employed men (e.g., Alfredsson, Karasek, & Theorell, 1982) consistently suggests that job strain is a risk factor for cardiovascular disease (CVD) and may also be indirectly related to CVD through increased levels of blood pressure, serum cholesterol, and cigarette smoking. Although women are frequently exposed to work environments characterized by high demands and low control, only three studies investigating these variables (e.g., Alfredsson, Spetz, & Theorell, 1985) have included employed women as subjects and none has focused on explaining similarities or differences in the effects of job strain according to gender. Karasek's job strain hypothesis has yet to be tested in larger studies of women employed in a variety of occupations.

Jobs most likely to result in feelings of stress combine high levels of demands with little power and little control over work, for example, machine-paced assembly line work (Caplan, 1985; Cox, 1980). Such jobs typically have low status and low incomes as well. Although these jobs fall to men as well as women, women are more likely to find themselves restricted to these positions by factors such as interrupted work histories, sex-typing, and discrimination (Brief et al., 1981). Recent studies concur that the

stressful aspects of women's employment may arise in large part from their overrepresentation in low-level jobs (Barnett & Baruch, 1985; Harlan & Jansen, 1987; LaCroix & Haynes, 1987; Muller, 1986). Differences in the stress levels men and women experience within the workplace may be very small when sex-associated variables like income and job status are controlled (Miller et al., 1979). That is, any discrepancies between women and men in their experiences of stress at work may be due to the underlying variables of work conditions and not to their gender. However, few studies have compared the relations between women's and men's experiences of stress at work and the nature of their work conditions.

Repetti et al. (1989) recently reviewed the literature on job characteristics and women's health and reported that occupational stressors, such as heavy job demands and lack of control, have been associated with various health problems (e.g., depressed mood and gastrointestinal illness) for women. Longitudinal data from the Framingham Heart Study indicate that high job demands in combination with few clear expectations and little feedback from supervisors may lead to increased risk of coronary heart disease in women who are employed in clerical jobs (LaCroix & Haynes, 1987).

According to Caplan (1985), job control and a poor person-environment fit on job complexity (whether the

absolute level of job complexity meets employees' need for complexity) are potential stressors that may be associated with employees' well-being. A fit on complexity ensures that employees' skills are not underused and employees' abilities are not stretched far beyond their limits. Lennon (1987) found that women whose occupations were characterized by low levels of job complexity reported high levels of demoralization (psychological distress).

Another potential source of stress for employed women, particularly white-collar and clerical workers, is the increasing computerization of the office environment. One in three of all such employees are currently using video display terminals (VDT) (LaCroix & Haynes, 1987). Although computer technologies enhance efficiency and decrease time consuming and repetitive tasks, early studies have shown that prolonged and intense use of VDTs results in feelings of higher job strain and more frequent reports of eye strain and fatigue (Smith, Cohen, & Stammerjohn, 1981). Belanger (1984) identified a number of aspects of office automation that are potentially stressful: increased monotony, lack of flexibility, isolation, and increased dependence on a system not understood by employees.

Miller et al. (1979) interviewed 269 employed married women in order to examine how specific work conditions were related to women's self-conceptions, intellectual functioning, and social orientations. They found that work

conditions that encourage occupational self-direction, specifically nonroutinization and substantive complexity, were related to effective intellectual functioning and open, flexible orientations toward others. Work conditions that constrain opportunities for occupational self-direction or subject workers to job pressures (e.g., overload) and job uncertainties (e.g., job insecurity) were related to negative self-conceptions, ineffective intellectual functioning, and rigid social orientations. Miller et al. (1979) reported that the associations between job conditions and psychological functioning were not reflections of educational or other social characteristics, nor were they due to circumstances such as occupational commitment or job income. They concluded that employed women's current occupational experiences are important for their intellectual and personality development.

Aneshensel (1986) examined the joint impact of marital strains and employment strains on depression in a longitudinal study of 490 women. She found that employed women with a combination of low marital strain and low employment strain had the lowest rates of depression. Nonemployed women who had high marital strain or were unmarried had the highest rates of depression. These rates were significantly higher than those of employed women who were exposed to both high marital strain and high employment strain.

Kandel et al. (1985) investigated levels of self-reported depression in women who occupy different social roles (e.g., occupational, marital, and household roles). Using a probability sample of 197 women, 71% of whom were employed either full- or part-time, they found that women who were both employed and married had the lowest rates of depression and women who were both single and not employed had the highest levels of depression.

Kandel et al. (1985) also examined the specific strains and stresses associated with women's social roles and their consequences for women's psychological well-being. Factor analyses were conducted on the work strains reported by the sample; in addition to the four work strains presented by Pearlin and colleagues (role overload, depersonalization, inadequate rewards, and noxious work environment) (Pearlin & Lieberman, 1979; Pearlin & Schooler, 1978; Pearlin et al., 1981), three additional work strains were found to be important to women: nonreciprocity (feeling exploited in the work situation), constriction of self (nonutilization of personal skills and resources on the job), and lack of control (undesirable job pressures). Furthermore, work strains, especially work overload, depersonalization, inadequate rewards, and constriction of self, were not tied directly to depression in women, but were associated with depression indirectly through their relations with work stress. Thus, work

stress was a mediator between work strains and depression (Kandel et al., 1985).

Karasek, Gardell, and Lindell (1987) investigated the relations among work and family stressors and stress moderators, on the one hand, and psychological strain, physical illness, health-related behaviour, and social participation outside of work on the other. Their sample consisted of 8700 randomly selected full-time employed men ($N = 5000$) and women ($N = 3700$) who were representative of Sweden's white-collar workforce. Karasek et al. (1987) reported that work stressors (workload, role clarity, and conflict with supervisors) and work stress moderators (job control, development opportunities, and social support from co-workers and supervisors) had strong associations with psychological strain, physical health, and health-related behaviour variables. More specifically, workload and conflict with supervisors were consistently associated with psychological strain (e.g., depressed mood) and physical illness (e.g., headaches, stomach problems), although there was no clear link between particular stressors and particular physical illnesses. In addition, job control and social support were associated with job satisfaction and few health problems, and few career development opportunities were associated with psychological strain.

Karasek et al. (1987) concluded that job factors contributed more strongly to the psychological strain and

physical illness measures than did the family stressors. For full-time employed women in Sweden, associations with psychological outcomes were stronger for work variables than they were for family variables. Therefore, the authors suggested that the direction of relations between work stress, on the one hand, and employees' well-being and family stress on the other is strongest from work to well-being and family. These findings support earlier research by Pleck and Staines (1985), who proposed the direction of association between psychological distress and work to be strongest from work to distress.

The links between women's work conditions and their levels of stress is a relatively new area of research. As is indicated by the studies reported here, women's work conditions can be a source of stress. However, only a few specific work conditions have been investigated. Although high workload, low job control, and very high and very low job complexity are conditions that have consistently been defined as stressors, many other work conditions, such as financial rewards, co-worker relations, and occupational status still need to be explored to better assess what it is about the workplace that affects women's well-being.

Another aspect of adjustment that may be associated with women's employment experiences is marital relations. The literature addressing the relations between women's

work experiences and women's and men's marital adjustment will now be presented.

Women's Work Conditions and Marital Adjustment

The most recent research on employed women has focused almost exclusively on the interaction between work and family (Haw, 1982). Still, little is known about how experiences at work are associated with marital relations in two-earner couples. Results of existing studies on the impact of women's employment status on marital relations appear contradictory. Some authors (e.g., Newberry, Weissman, & Myers, 1979) have suggested that women's employment affords a source of personal satisfaction that is reflected in high marital satisfaction, while others (e.g., Staines, Pleck, Shepard, & O'Connor, 1978) have reported low marital satisfaction in two-earner couples. Other studies of marital relations (e.g., Smith, 1985) have typically found little or no relationship between women's employment and marital adjustment. Finally, some studies (e.g., Burke & Weir, 1976) have suggested that women's employment improves the marital satisfaction of wives but impairs the marital satisfaction of husbands.

According to Scarr, Phillips, and McCartney (1989), women's employment per se is not the major issue in marital relations. Rather, it is the circumstances of the family, the sex-role attitudes and marital expectations of both spouses, and the distribution of time available after work

that are important for spousal relations. For two-earner couples, their marital satisfaction often depends on their attitudes about gender roles, their ability to set priorities for work and family, and the degree to which they can manage time and energy (Aldous, 1982; Hertz, 1986; Pepitone-Rockwell, 1980; Voydanoff & Kelly, 1984). Costs associated with women's paid employment include less leisure time, more time spent on household tasks, and less sexual activity due to fatigue and lack of time (Voydanoff & Kelly, 1984).

Hoffman (1989) reported that a negative relation between women's employment and marital satisfaction occurs more often when there is sex-role traditionalism, resentment of the employment by either spouse, a lower class sample, or when the husband is the reporter. A positive relation is more likely found when the sample is educated or middle class, the wife wants to work, the work is part-time, or when the wife is the reporter.

Thus far, attempts to link women's employment and specific aspects of marriage have not revealed clear patterns. Some studies (e.g., Aldous, 1982; Burke & Weir, 1976) have observed good communication and agreement about values in two-earner families. Others (e.g., Smith, 1985) have found the opposite result. According to Lewis and Spanier (1979), consensus in values is particularly significant for two-earner couples, since they are involved

in an innovative living pattern for which there is not yet universal support. However, Hoffman (1989) cautioned that these studies may reflect expectations about aspects of marriage that are important to different couples and the extent to which the two-earner lifestyle meets them.

Scanzoni (1982) has proposed that two-earner families may be very cohesive and even more so than single-earner families. He views family cohesion as a function of reciprocity and the exchange of rights and duties. According to his gender-based model of the joint effects of work and family on family cohesion, men and women exchange rights and duties on two levels: an instrumental level (e.g., economic provision and household work) and an expressive level (e.g., companionship, empathy, and affection). A satisfactory exchange on the instrumental level leads to exchanges on the expressive level; the mutual performance of expressive activities is in turn associated with marital happiness and satisfaction. Marital satisfaction increases motivation to continue expressive exchanges, thereby leading to stability, solidarity, and cohesion. In two-earner families, the wife's employment provides additional opportunities for instrumental exchanges between husbands and wives. The exchanges associated with wives working outside the home and husbands performing household tasks are expected to

increase motivation for expressive exchanges which in turn enhance marital cohesion (Scanzoni, 1982; Voydanoff, 1987).

Women's Marital Adjustment

Researchers have argued that work and nonwork experiences are mutually related; that is, positive and negative experiences in one role can be linked to experiences in another role (Barnett & Baruch, 1987; Greenhaus et al., 1987). More specifically, experiences at work may be associated with marital and family relations just as experiences at home may be associated with experiences at work (Belsky, 1984; Piotrkowski, 1979). Given this relation, variability in marital interaction may be due to conditions that employees face at work each day. Women's experiences as a spouse may be related to their experiences as paid workers.

Negative experiences within the workplace can impair the quality of employees' personal and family lives (Greenhaus et al., 1987). According to Pearlin and Lieberman (1979), when people are confronted with persistent difficulties in important areas of their lives (e.g., work and family), they are more likely to manifest symptoms of anxiety and depression. These global strains overlap role boundaries such that occupational events, for example, create problems in marital and family relations as well as on the job.

There is a significant association between employees' repeated exposure to stressful job conditions and generally less satisfying family relations, such as less availability to and involvement with family members (Burke, 1982; Piotrkowski & Crits-Christoph, 1982). Women facing many demands may become irritable or fatigued, possibly setting into motion negative interactions with family members. Work demands may also decrease opportunities for spending time with spouses, thereby impairing togetherness. As employed women redefine participation in family roles (household work and child care) so that responsibilities are more evenly distributed across spouses, marital tensions about the division of household labour are also likely to surface (Hochschild, 1989).

Little is known about which specific aspects of women's jobs are related to their marital relations. Dew, Bromet, Parkinson, Dunn, and Ryan (1989; cited in Bromet, Dew, & Parkinson, 1990) examined work and family stress in a sample of 168 married women who were employed as assembly line workers. They found that women who were experiencing high levels of occupational stress (e.g., working very fast, having a great deal to get done, and not being able to use skills learned in school or in previous jobs) reported a variety of marital stresses. These marital stresses included husbands' unwillingness to listen to personal problems or to problems related to their working

conditions, and husbands' failure to help with the housework. However, given the cross-sectional nature of their design, these authors were unable to choose between alternative interpretations of the relationship between occupational stress and marital stress.

Repetti (1987) found that women who worked in an unpleasant social environment, overextended themselves with work and family commitments, and disapproved or had spouses who disapproved of employment for married women reported less satisfying family relations, more family conflict, and less cohesion at home. Coverman (1989) reported that lacking authority on the job was associated with low marital satisfaction in women. Piotrkowski and Crits-Christoph (1982), however, concluded that women's marital adjustment was not related to their job satisfaction, job-related mood, time spent at work, or occupational rewards.

In sum, the research on women's work conditions and marital relations is inconclusive and the lack of longitudinal data prevents an accurate assessment of the direction of the relations between work and marriage. Thus, the consequences of exposure to a variety of work conditions for marital adjustment still requires investigation.

Men's Marital Adjustment

The experiences of one marital partner may also influence the experiences of the other. According to

Billings and Moos (1982), individuals may be affected by events that occur in settings in which other family members participate. Workers facing more occupational demands have spouses with lower psychological well-being than do workers in less stressful work environments (Burke, Weir, & DuWors, 1980). Therefore, stressors in women's work milieux may be related to their spouses' adjustment.

Some studies (e.g., Booth, 1979; Locksley, 1980; Smith, 1985) have indicated that wives' employment status has no association with husbands' marital adjustment, whereas others (e.g., Gilbert, 1985; Pleck, 1985) have found that husbands' perceptions of their wives' employment depend on husbands' degree of participation in family affairs, and their attitudes about male and female roles. Men who participate at home and who have more egalitarian beliefs about gender roles support their wives' employment, even though they also perceive costs to the family (Aldous, 1982; Pepitone-Rockwell, 1980). Gilbert (1985) reported that men who participate in household work and child care claim to be content with their wives' employment. She suggested that marital satisfaction may depend primarily on the degree to which husbands feel inconvenienced by their wives' employment in exchange for a larger family income.

Research has investigated how husbands' work experiences are related to their wives' well-being and marital satisfaction (Barling, 1984; Burke, 1982; Burke &

Weir, 1981, Crouter, Perry-Jenkins, Huston, & Crawford, 1989; Keith & Schafer, 1980; Repetti, 1989). Crouter et al. (1989) recently examined the processes by which husbands' psychological states after work were linked to activities at home during the following 24-hour period. Data on four psychological states (stress, fatigue, arousal, and depression) and subsequent involvement in household tasks, leisure, and negative marital interactions were collected from 29 young married men on two weekdays following their return home from work. They found that husbands' feelings of stress and fatigue brought on by negative work experiences were related to less involvement in housework and wives' reports of a greater number of negative marital interactions later that evening.

Barling (1984) observed a linear relationship between husbands' work experiences and their spouses' marital satisfaction in a heterogeneous sample of 50 couples. Based on his own research and patterns in the literature, Barling (1984) suggested that when work experiences are negative or demands are excessive, spouses' marital satisfaction may suffer, whereas positive work experiences may enhance marital satisfaction.

Burke, Weir, and DuWors (1980) and Burke (1982) investigated the relationship between work stressors experienced by 85 male senior administrators of correctional institutions and 41 male senior administrators

of probation/parole/aftercare services, and the well-being of their spouses. Data were collected by questionnaires completed independently by husbands and their wives. The results indicated that wives whose husbands encountered more work stressors reported less marital and life satisfaction, less social participation, and more psychosomatic symptoms and negative feeling states. In no case was wives' well-being enhanced as a function of their husbands' exposure to increased work stressors (Burke, 1982; Burke, Weir, & DuWors, 1980).

In Burke's research, particular occupational demands were consistently related to higher levels of distress or dissatisfaction in spouses. These occupational demands included stress from the rate or pace of change and stress in communicating with others at work. Another cluster of occupational demands was negatively related to the various areas of wife satisfaction and well-being. These included the number of hours worked per week, job complexity, role ambiguity, quantitative overload, inequity in pay, and responsibility for things. Finally, there were some occupational demands encountered by the administrators that had little or no relation to any area of wives' satisfaction and well-being. These included concentration, responsibility for people, underutilization of skills, lack of influence, job future ambiguity, and role conflict (Burke, 1982; Burke, Weir, & DuWors, 1980).

Although the above studies examined husbands' jobs and wives' marital adjustment, fewer studies have examined the processes by which women's work experiences are associated with their spouses' adjustment. Piotrkowski and Crits-Christoph (1982) reported that husbands' marital adjustment may be relatively independent of their wives' work experiences, but these authors also failed to find a relationship between women's work variables and their own marital adjustment in this sample. Repetti (1987) found that husbands' reports of marital and family relations were associated with their wives' descriptions of role overload and poor social climate in the work setting.

Generally, the research is vague about which specific job conditions are associated with marital functioning for either spouse. In addition, the processes by which work conditions and marital relations interact have only recently been investigated. The following section presents this literature.

Stress as a Mediator

Many reviews of the research on women's employment indicate that mediating variables are important for interpreting the interaction between women's employment and family relations (Anderson-Kulman & Paludi, 1986; Locksley, 1980; Simpson & England, 1982; Smith, 1985). According to Crouter et al. (1989), stress has been constantly implicated in the work-family interface. If the work-

related stressors of one family member appear to be related to their own health and functioning or that of other family members, it is important to identify the ways in which such processes occur. Only recently, however, have researchers explored the interactions between work and non-work stressors.

There are at least two processes by which work experiences may be associated with family life: spillover and crossover (Bolger et al., 1989). In both these processes, the daily stresses and satisfactions on the job help shape employees' emotional states at the end of the work day. These psychological states are brought home where they have the potential to influence patterns of family activity, family interactions, and the quality of family relations. (Greenhaus & Parasuraman, 1986; Piotrkowski, 1979; Repetti, 1989).

The notion of spillover asserts that there is a similarity on a daily basis between what occurs in the work environment and what occurs at home for the same individual. Spillover from work to family life can be either positive or negative. Positive spillover occurs when job satisfaction or job challenges result in the creation of energy and enthusiasm that is carried over into family life. Workers who like their jobs and have adequate control over the demands of work bring positive energy into

their families and are psychologically available to family members when they are at home.

In negative spillover, problems and stress at work drain and preoccupy individuals making it difficult to participate adequately in family life (Voydanoff, 1987). For example, when workers' jobs involve overload or conflicting demands, these tensions are often brought home, requiring other family members to accommodate or keep their distance. Workers with boring, nondemanding jobs also tend to withdraw from family interaction and activities. When work stress is either enduring or frequently repeated, marital and family relations can become disrupted, and in turn, can become chronic role strains and the antecedents of persistent stress (Pearlin & Turner, 1987).

In a crossover process, stress experienced by one spouse at work or home leads to stress for the other spouse in the opposite domain (Bolger et al., 1989). For instance, job demands may result in an individual having a bad day at work and subsequently arguing with one's spouse the same evening. When this interaction increases a spouse's marital stress, for example, crossover has occurred.

Piotrkowski (1979) examined positive and negative spillover from work to family in an in-depth study of 13 working-class and lower middle-class families. She found that job stresses displaced the potential for positive

family interaction and required family members to expend their personal resources to assist the employee in managing the strain. Jackson, Zedeck, and Summers (1985) reported that employees' emotional reactions to their jobs, as measured by indices of physical health and psychological mood, were related to decreased quality of family life and increased spouse dissatisfaction with employees' jobs. Greenhaus and Parasuraman (1986) suggested that the magnitude and consequences of work-nonwork stress are likely to be particularly severe for members of two-earner relationships. With expanded work and family responsibilities for these couples, the likelihood of work-nonwork conflict increases, stressors in work and nonwork domains can easily cumulate, and the resultant strains may spill over into other life roles.

Bolger et al. (1989) investigated spillover and crossover from work to home and home to work in a six-week diary study of 166 employed married couples. They found significant spillover effects among men and women between work and home domains. These effects were bidirectional, with stresses at home spilling over into the employment role, and stresses on the job spilling over into the family. For example, overload and arguments in one domain led to overload and arguments in the other domain for both men and women. Contrary to expectations, husbands were

more likely than their wives to bring their stresses from home into the workplace (Bolger et al., 1989).

Bolger et al. (1989) concluded that there was less stress spillover and crossover from work to home among men and women than might be expected. They reported, however, that overload at work set in motion a process of dyadic adjustment at home whereby wives increased their household involvement in response to their husbands having a hectic day at work. On the other hand, evidence of this dyadic adjustment by husbands in response to wives' stress at work was weak, suggesting that even though women decreased their involvement in household tasks on stressful work days, their work at home is more often deferred to another day rather than being completed by their husbands (Bolger et al., 1989).

Patterns also suggested that there was a positive relation between husbands' and wives' reports of arguments at work and their spouses' subsequent reports of arguments at home (Bolger et al., 1989). In additional analyses of these data, Bolger, DeLongis, Kessler, and Schilling (1989) found that arguments at work and arguments at home were much more upsetting than other daily stressors, and that arguments predicted daily fluctuations in emotional distress and depressed mood.

Galambos and Silbereisen (1989) examined how spouses' role strain (feelings of discomfort associated with

accomplishing family and work obligations) was related to marital interaction and family conflict in 314 two-earner couples in West Germany. They found that strained, relative to unstrained, husbands and wives reported less frequent marital interaction and greater family conflict. Although husbands' perceptions of family functioning were not related to their wives' levels of strain, wives with strained husbands reported less marital interaction and greater family conflict than did wives of unstrained husbands. Strained wives with strained husbands reported the lowest levels of marital interaction and the highest levels of family conflict. Billings and Moos (1982) trichotomized men with employed wives according to the amount of work stress reported by their wives and found that husbands of women who were highly stressed at work reported a greater number of physical symptoms (e.g., headaches, insomnia) and less cohesion in family functioning.

The research conducted by Billings and Moos (1982), Bolger et al. (1989), Galambos and Silbereisen (1989), and Repetti (1987) suggests that women's feelings of stress may mediate a process in which women's work experiences spill over into their marital relations or cross over into their spouses' marital relations. However, studies that have investigated husbands' or wives' work conditions and their spouses' marital adjustment have often failed to include

measures of marital adjustment for both spouses. Even when these measures have been included, the processes of spillover and crossover have typically been studied separately (see Bolger et al., 1989 for an exception), omitting a potentially important relationship between spouses' reports of marital adjustment. Perhaps women's or men's feelings of stress are only indirectly related to their spouses' marital adjustment through their own marital adjustment. Zedeck and Mosier (1990) have called for a further examination of the processes by which work and family interact and the quality of individuals' experiences at home and at work, as well as for more specific measures of the sources of satisfying work, marital, and family relations.

Summary and Hypotheses

Although the literature on women's work conditions and their psychological well-being is increasing, few studies have used samples of women employed in a variety of occupations. Similarly, there has been a fair amount of research on men's work experiences and their spouses' well-being and marital adjustment, yet little consideration has been given to the processes by which women's work experiences are related to their spouses' marital adjustment. Are women's work experiences directly associated with their own as well as their spouses' marital adjustment? Or are women's work experiences associated

with marital adjustment indirectly through their feelings of stress or perhaps their spouses' feelings of marital adjustment?

From the previous literature review (e.g., Coverman, 1989; Repetti, 1987), it seems that there is a link between women's work conditions and their marital relations. Research has indicated that variability in marital interaction may be due to the conditions women face at work each day (Belsky, 1984; Piotrkowski, 1979). Associations between repeated exposure to stressful job conditions and less satisfying family relations have also been reported (e.g., Burke, 1982; Piotrkowski & Crits-Christoph, 1982). Job demands or role overload may decrease opportunities for spending time with one's spouse, and women experiencing inadequate financial or interpersonal rewards at work may become irritable, possibly setting into motion negative interactions with family members.

The association between women's work conditions and their marital relations, however, is probably an indirect one, mediated by their feelings of work stress and global stress. In a spillover process, tensions experienced at work as a result of role overload, for example, are brought home and are likely to influence patterns of family interaction. Studies by Dew et al. (1989; cited in Bromet et al., 1990) and Bolger et al. (1989) have suggested that

negative work experiences (e.g., overload) are related to increasing conflict with one's spouse.

How women's experiences at work are related to their spouses' perceptions of marital relations is an area of study sorely lacking in the literature. Despite the prevalence of two-earner couples, few studies of employed women have also collected data from their spouses. Research (e.g., Burke, 1982; Crouter et al., 1989) has indicated that men's work experiences are related to their wives' well-being and marital satisfaction. More specifically, men's work stress has been linked to their spouses' subsequent reports of negative marital interactions. Recently, studies (e.g., Bolger et al., 1989; Repetti, 1989) have examined a process of stress crossover in which employees' stress at work results in stress for their spouse at home and subsequent negative marital interactions. Bolger et al. (1989) examined crossover from work to home and home to work for both men and women. These authors reported a crossover process in which husbands' feelings of overload at work increased their wives' feelings of overload at home the following day. Thus, it seems that stress reactions in response to work strains, such as overload, may mediate a process in which job holders' work experiences are related to their spouses' marital adjustment.

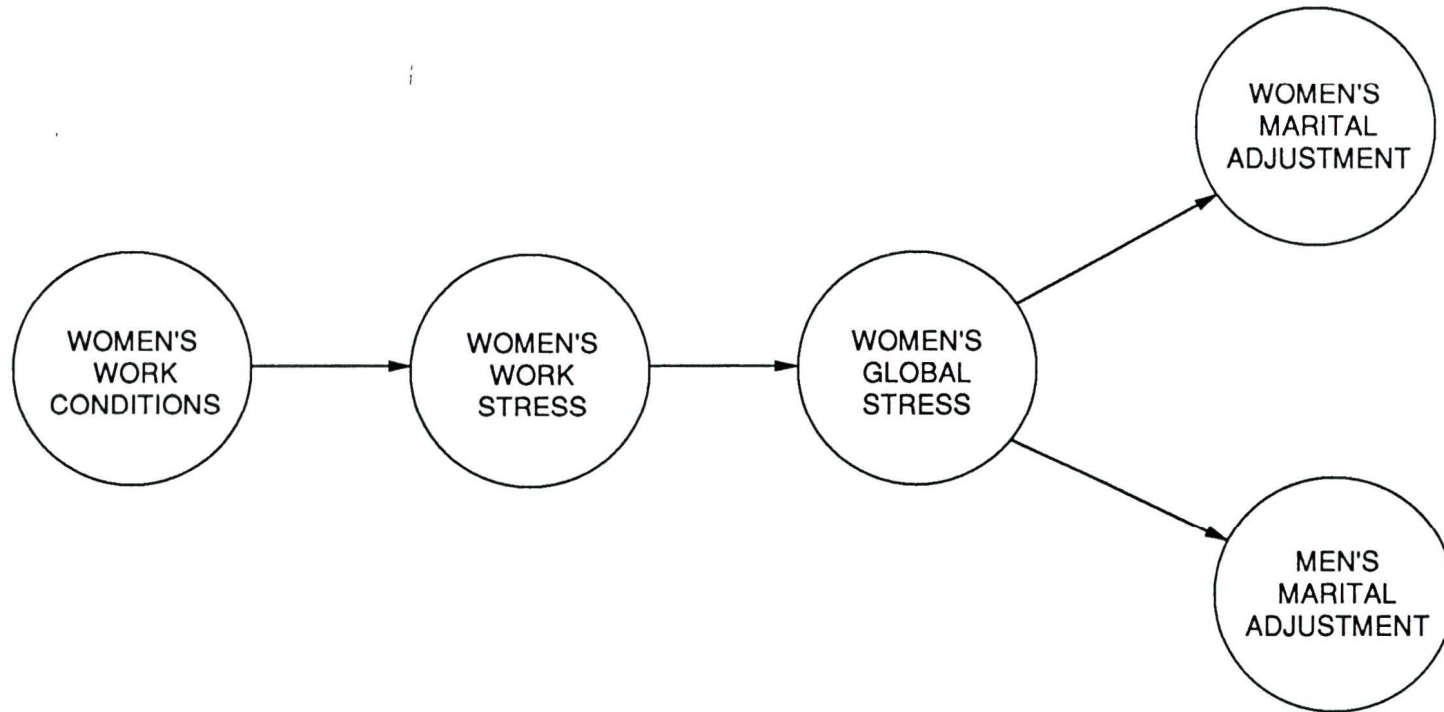
Research is beginning to examine processes by which the domains of work and family are intertwined; that is, how employees' work experiences spill over into their marital and family relations and vice versa. Studies examining the importance of women's exposure to specific work conditions for their well-being and marital relations remain scarce, however, as are studies that focus on the adjustment of employed women's spouses.

The purpose of the present study is to contribute to the literature on processes linking work and family by examining the ways in which women's and men's marital adjustment is indirectly associated with women's work conditions through women's feelings of work stress and global stress.

Proposed Model

In the present study, the fit of a structural model relating women's work conditions, women's work stress, women's global stress, and women's and men's marital adjustment was assessed (see Figure 1). Research by Kandel et al. (1985) and Pearlin and colleagues (e.g., Pearlin & Lieberman, 1979; Pearlin & Schooler, 1978; Pearlin et al., 1981) provided the basis for the hypotheses of this model. Pearlin and colleagues reported that specific work conditions, such as work overload and inadequate work rewards, were associated with global stress (e.g., depression) in employed men and women. Kandel et al.

Figure 1
Proposed Model: Hypotheses



(1985) attempted to replicate the structure of role strains initially proposed by Pearlin and Schooler (1978) with a sample of women. They found that work strains (e.g., work overload) were not tied directly to depression in women, but were related to depression indirectly through their relations with work stress. That is, employed women's first response to work stressors is a role-specific stress (e.g., work stress or role strain) which may precede more global aspects of stress, such as depression or anxiety.

Consistent with Pearlin's life strains view of the stress process, women's exposure to specific work conditions (e.g., overload) may be linked to their feelings of stress. The proposed model tested the relations among women's work conditions, women's work stress, and women's global stress as conceptualized by Kandel et al. (1985); that is, are women's work conditions indirectly associated with women's global stress through their experiences of work stress?

This model was extended to include marital adjustment in order to explore the notions of spillover and crossover from work to family life as reported by Bolger et al. (1989). Do women's levels of work stress and global stress mediate the relations among women's work conditions and women's and men's marital adjustment? Many studies of marital adjustment have failed to include both spouses' reports on this relationship. Even when these measures

have been included, processes of spillover and crossover have frequently been examined independently and, as a result, the potentially important relationship between spouses' marital adjustment has been overlooked. The present study attempted to deal with this issue by evaluating spillover and crossover from work to marital relations within one model.

In sum, the proposed model investigated a process by which women's work conditions were linked to women's stress which, in turn, was linked to women's and men's marital adjustment (see Figure 1). The hypotheses tested by this model were as follows:

1. Women's work conditions were hypothesized to be indirectly and inversely related to women's marital adjustment through their relations to women's work stress and, in turn, women's global stress. That is, negative work conditions (e.g., high work overload) were expected to decrease women's marital adjustment by increasing women's work stress and, in turn, increasing women's global stress.

2. Similarly, women's work conditions were hypothesized to be indirectly and inversely related to men's marital adjustment through their relations to women's work stress and, in turn, women's global stress. That is, negative work conditions (e.g., low income) were expected to decrease men's marital adjustment by increasing women's work stress and, in turn, increasing women's global stress.

CHAPTER III

METHOD

Participants

The participants for the present investigation were 86 employed women and their employed spouses participating in the "Two-Earner Family Study", a longitudinal study with four occasions of measurement (Winter 1988 [Time 1], Summer 1988 [Time 2], Winter 1989 [Time 3], and Summer 1990 [Time 4]). The focus of the "Two-Earner Family Study" is work, family relationships, and well-being. Data for the present study are from Summer 1988 (Time 2).

Participants consisted of a subset of the larger sample of 112 families living in Victoria, B.C. There were 86 employed women with complete data at Time 2 whose spouses also had complete data for Time 2. The occupational characteristics of the sample suggest that the distribution of women's occupations is similar to the population base (Statistics Canada, 1987) with two exceptions: The women in the sample are employed in more managerial and administrative positions and fewer service positions than are women in the population of Victoria. Table 1 presents the major occupational categories to which the two-earner spouses belong.

The women in the present study had been employed for an average of 6.5 years ($SD = 5.5$) and worked 29.8 hours a week ($SD = 10.3$). They were an average of 38.4 years old

Table 1

Occupational Classifications of Two-Earner Spouses

Classification	Men	Women
Professional, technical, & kindred	25%	19%
Managers & administrators	23%	18%
Craftspersons & kindred	25%	0%
Clerical & kindred	3%	38%
Sales workers	9%	14%
Service workers	5%	9%
Operatives	7%	2%
Labourers	3%	0%

($SD = 3.9$) and had completed 13.2 ($SD = 2.3$) years of education. Their spouses had been employed for 17.2 years ($SD = 8.2$) and worked 43.2 hours a week ($SD = 12.9$). These men were an average of 40.9 years old ($SD = 5.5$) and had completed 13.7 years of education ($SD = 3.0$). The mean number of years married was 14.7 ($SD = 4.9$) and the mean number of children per family was 2.3 ($SD = .63$).

Procedure

To obtain the sample, letters soliciting participants were distributed to Grade 6 students in 19 schools in Victoria, B.C. (population is about 250,000). Grade 6 students were targeted because one focus of the study was the transition to adolescence. Criteria for participation were that each household contain two parents (not necessarily biological parents) who were employed outside the home on a full- or part-time basis, and that all three family members (mother, father, and adolescent) agree to participate. Families returned prestamped postcards indicating their desire to take part in the study. Advertisements requesting families meeting the same criteria were also placed in several local newspapers.

A total of 127 families initially volunteered. Questionnaires were mailed individually to parents and adolescents on each occasion. Participants were asked to complete the questionnaires independently and to not discuss their responses with other family members. All

participants were given separate prestamped return envelopes in which to return their questionnaires. Participants were assured of the confidentiality of their responses and consent forms were signed by all mothers and fathers. One hundred and twelve families returned the first set of questionnaires, 101 returned the second set, and 97 returned the third set. As a token payment for their participation, each family member who returned a questionnaire received a cheque for five dollars on the first occasion and ten dollars on subsequent occasions.

Of the 112 women participating in the Two-Earner Family Study, 103 returned questionnaires at Time 2 (Summer, 1988). Data for all variables in the present study were available for 89 of these participants. An additional 2 participants were missing only 1 score and 2 others were missing only 3 of the 15 scores required for complete data. Thus, estimated scores for these 4 participants were computed using the regression method (Cohen & Cohen, 1983). For 3 of these 4 participants missing scores were estimated using a prediction equation based on available scores from Time 1 and Time 3. For example, Time 2 depression was estimated using a prediction equation based on depression scores at Time 1 and Time 3. Only Time 1 scores were available for the fourth participant and these values were similarly used to generate a prediction equation for each of her 3 missing

scores. However, only 86 of the spouses of these 93 women also had complete data for Time 2. Thus, all of the results reported in the following chapter are based on responses from 86 employed women and their employed spouses. Only 8 of the 1548 scores employed in the analyses were estimates.

Measures

Three general domains were assessed: women's work conditions, women's stress, and women's and men's marital adjustment.

Work conditions. Seven indicators of women's work conditions were used: total work hours, socio-economic status (SES), and measures of work schedule inflexibility, role overload, noxiousness of work environment, inadequacy of rewards, and depersonalization. Total work hours is the number of hours in one week that women reported spending in paid employment. Total work hours was calculated as the sum of women's responses to two items: (1) How many hours per week do you work in your primary job? and (2) If you hold more than one job, how many hours per week do you usually work for all your other employers? Women's socio-economic status, or the occupational prestige of their jobs, was assessed using Blishen and McRoberts' (1976) occupational index for Canadian samples. Examples of occupations and their SES scores are nurse (38.2), secretary (52.5), and bank loans manager (68.2).

Work schedule inflexibility is the extent to which one's job constrains the accomplishment of family, household, and personal tasks and was measured by the Job-Family Management Scale (Bohen & Viveros-Long, 1981) (see Appendix A). This 21-item scale (e.g., "On days when you are working, how easy or difficult is it for you to arrange your time to go to health care appointments?") has proven reliable and valid for research with employed parents (Bohen & Viveros-Long, 1981). Responses are rated on a scale from Very Easy (1) to Very Difficult (5). This measure demonstrated an internal consistency of .92 in the present sample.

Role overload (5 items), noxiousness of work environment (4 items), inadequacy of rewards (6 items), and depersonalization (4 items) are occupational strain indices (Pearlin & Schooler, 1978) that assess the physical and psychological demands placed on women and men at work (see Appendix B). Role overload (e.g., "Do you have more work than you can handle?") was rated on a scale from Almost Always (1) to Never or Almost Never (4) for three items and from Never (1) to Very Often (4) for two items. Items 1, 2, and 3 were reverse coded such that higher scores on the scale indicated more role overload. One item ("Do people come to you for your opinions about how the work should be done?") was omitted from the scale to increase its internal consistency from .37 to .60.

Noxiousness of work environment (e.g., "Do you work in a lot of dirt or dust?") was rated on a scale from Almost Always (1) to Never or Almost Never (4). Each of the items on this scale was reverse coded such that higher scores indicated more noxious work environments. Inadequacy of rewards (e.g., "The income I earn is just about right for the job I have") was rated on a scale from Strongly Agree (1) to Strongly Disagree (4). One item ("There is always a chance I may be out of a job.") was reverse coded such that higher scores on the scale indicated more inadequate rewards. Depersonalization (e.g., "Do people at work treat you in an unfriendly way?") was rated on a scale from Never (1) to Very Often (4). One item ("Are you told that you're doing a good job?") was reverse coded such that higher scores on the scale indicated more depersonalization. Using coefficient alpha, internal consistencies of .60, .40, .52, and .65 were found for role overload, noxiousness of work environment, inadequacy of rewards, and depersonalization, respectively, in the present sample.

Stress. Two types of women's stress were assessed: work stress and global stress. The indicators of work stress were occupational stress and role strain. Occupational stress was measured using a 7-item scale developed by Pearlin and Schooler (1978) (e.g., "When you think of your day-to-day job, to what extent do you feel bothered or upset?") (see Appendix C). Responses ranged

from Very (1) to Not at All (4). Items 1, 2, 4, 5, and 7 were reverse coded such that higher scores on the scale indicated more occupational stress. The internal consistency for this scale was estimated at .85.

Role strain was measured using Bohen and Viveros-Long's (1981) 16-item Job-Family Role Strain Scale (see Appendix D). Job-family role strain assesses one's feelings of discomfort, pressure, or worry associated with adequately accomplishing family and work role obligations (e.g., "My job keeps me away from my family too much"). Responses ranged from Always (1) to Never (5). Each item, except items 3, 12, and 14, was reverse coded such that higher scores on the scale indicated more role strain. Coefficient alpha was .89 for the present sample.

The indicators of women's global stress were depression, anxiety, and mood. Depression was measured using the 20-item Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977) (see Appendix E). The CES-D is a widely used self-report scale that asks about the frequency of occurrence of symptoms in the previous week (e.g., "I had crying spells"). Responses ranged from Rarely or None of the Time (1) to Most or All of the Time (4). Items 4, 8, 12, and 16 were reverse coded such that higher scores on the scale indicated more feelings of depression. In the present sample, coefficient alpha was .91. Other researchers who have used this

instrument have found it to be useful for research with employed parents (Kandel et al., 1985).

Anxiety was measured by Spielberger's 20-item State Anxiety Scale (Spielberger, Gorsuch, & Kuhlenschmidt, 1970) which assesses the degree to which one currently feels anxious (e.g., "I am tense") (see Appendix F). Responses ranged from Not at All (1) to Very Much So (4). Items 1, 2, 5, 8, 10, 11, 15, 16, 19, and 20 were reverse coded such that higher scores on the scale indicated more feelings of anxiety. The usefulness of this instrument has been documented (Buros, 1978). Coefficient alpha for this scale was .91 in the present sample.

Mood was measured using the 7-item mood subscale from the Dimensions of Temperament Survey - Revised (DOTS-R) (Windle & Lerner, 1986) (see Appendix G). The mood scale assesses one's mood at the time of completing the questionnaire (e.g., "I smile often"). Responses ranged on a scale from Usually False (1) to Usually True (4). Items 2 and 4 were reverse coded such that higher scores on the scale indicated a more positive mood. Although this scale was not designed to be an index of stress per se, its content seems to capture some of the same feelings as that in the CES-D and therefore it was expected to be useful in a composite measure of stress. Internal consistency for this measure was .90.

Marital adjustment. Three indicators of marital adjustment were used: marital cohesion, marital consensus, and marital satisfaction. Marital cohesion, marital consensus, and marital satisfaction are three of the four subscales that comprise Spanier's Dyadic Adjustment Scale (Spanier, 1976). A fourth subscale, affectional expression, was not used in this study.

Spanier's Dyadic Adjustment Scale was designed for use with married and cohabiting couples and measures an individual's assessment of the level of marital adjustment in his or her relationship. Marital cohesion (e.g., "How often do you and your mate laugh together?") is a measure of the extent and quality of spouses' shared leisure time and other activities; marital consensus (e.g., "How often do you and your partner agree or disagree about the handling of family finances?") is a measure of the extent of spouses' agreement on such issues as finances, goals, career decisions, and friends; and marital satisfaction (e.g., "In general, how often do you think that things between you and your partner are going well?") is a more general assessment of marital happiness (see Appendix H). Responses are obtained using a 6-category Likert scale with the exception of two items using a 5-point Likert scale, and one item using a 7-point Likert scale. The following items were reverse coded such that higher scores on the scales indicated higher marital adjustment: Item 1 on the

marital cohesion scale; each item on the marital consensus scale; and items 1, 2, 7, and 8 on the marital satisfaction scale. Evidence for the reliability and validity of the Dyadic Adjustment Scale has been reported by Spanier (1976). Internal consistencies for marital cohesion (5 items), marital consensus (13 items), and marital satisfaction (9 items) in the present sample were .77, .88, and .85 for women, and .85, .88, and .86 for men.

Plan of Analysis

The hypothesized process of the relations among women's work conditions, women's stress, and women's and men's marital adjustment was examined using principal components analysis and structural equation modeling techniques. The reliabilities of the constructs were increased by using multiple measures to develop each construct. Previous authors have suggested this approach to deal with the multidimensional nature of some variables (e.g., Patterson, 1988; Quittner, Glueckauf, & Jackson, 1990) as well as potential problems with multicollinearity among multiple related variables (e.g., Almeida & Galambos, in press).

Principal components analysis. In order to use a multiple measures approach with modeling techniques, a principal components analysis followed by a varimax rotation was used to examine the extent to which specific measures overlapped to form hypothesized underlying

constructs (e.g., the extent to which the occupational stress and role strain scales overlapped to form one construct labelled work stress). The principal components were identified using the scree test (Cattell, 1966). Given considerable overlap among sets of measures, single constructs were derived by computing component scores for each participant using the Bartlett method (Harris, 1967; McDonald & Burr, 1967). Participants' component scores are a simple linear transformation of their scores on the factored variables and can be used as estimates of the scores they would have received on each construct had it been measured directly (Tabachnick & Fidell, 1989). These component scores were used in place of raw scores for all analyses involving modeling techniques.

Structural equation modeling techniques. Structural equation modeling techniques were used to test the proposed model presented in Figure 1. Structural equation modeling is a strategy that can facilitate the use of correlational data to assess and modify theoretical models, and as such offers great potential for furthering theory development (Anderson & Gerbing, 1988; Biddle & Marlin, 1987; Martin, 1987; Maruyama & McGarvey, 1980). However, use of this technique is not sufficient to determine causality. Instead, it tests the plausibility of theoretical models, with the hope of demonstrating the inadequacies of some theories. Thus, the strongest conclusion that can be made

when assessing a structural model is that the patterning of relations among the variables has been correctly predicted (Biddle & Marlin, 1987).

The primary advantage of structural equation modeling over ordinary least-squares techniques when manifest variables are used is that the fit of the model may be evaluated using the criterion of how well the empirical covariance matrix is reproduced (Steiger, 1989). The magnitude and direction of the path coefficients are assessed in a similar manner to regression techniques. The major drawback to models using only one measure of each construct is the assumption of perfect measurement of the variables (Francis, 1988). That is, manifest variable models have difficulty disentangling theoretical variables from the measures and, as a result, the variables and their indicators are typically assumed to be equivalent (Maruyama & McGarvey, 1980). Inclusion of multiple measures of constructs by generating some composite of these measures, as is being done in the present study, attempts to address the problem of measurement error and improves the reliability of the constructs.

Structural models are used to explicitly specify the theoretical relations among constructs. Constructs whose causes are assumed to be external to the model and not of present interest are referred to as exogenous or independent variables and are usually presented on the far

left of the model. It is assumed that the causes of the exogenous variables do not affect any other variables in the model (Francis, 1988). Constructs that have their causes specified within the model are called endogenous or dependent variables. Residuals or disturbances are a third type of variable and represent error and all unmeasured causes of the endogenous variables (Cohen & Cohen, 1983).

The validity of an hypothesized model is assessed by comparing it to an observed correlation or covariance matrix (Biddle & Marlin, 1987). That is, the model's validity or goodness-of-fit is evaluated by comparing a reproduced matrix consisting of standardized regression coefficients to the original or empirical correlation or covariance matrix. If the structure of the observed correlations or covariances corresponds to those predicted by the model, the model as a whole is said to have gained support by failing to be disconfirmed (Anderson & Gerbing, 1988).

The global fit of a model can be assessed in many ways and researchers are advised to examine multiple fit criteria as opposed to relying on a single statistic (Breckler, 1990). The null hypothesis is that the model fits the data, so that nonsignificant chi-square values indicate an adequate fit of the model to the data (Biddle & Marlin, 1987). Two other measures of overall fit, the goodness-of-fit index (GFI) and the adjusted goodness-of-

fit index (AGFI), are based on a comparison between the observed and predicted variances and covariances of the observed variables. The GFI and AGFI, the latter of which takes the degrees of freedom into account, measure the relative amount of variances and covariances jointly accounted for by the model such that high values in a range from zero to one indicate a better fit (Anderson, 1987). Although a given model has an acceptable goodness-of-fit, this does not imply that the data do not also fit other models. Equally plausible evidence in support of other, perhaps conflicting, models is possible (Bentler, 1980; Godwin, 1988).

Because a priori theoretical models frequently do not provide an adequate fit of the model to the data, the original model may be modified to improve its fit (Long, 1983). One method of locating the source(s) of misspecification in models is an examination of the patterning of residuals. Residual matrices show differences between the model's predicted and observed correlation or covariance matrices (Anderson & Gerbing, 1988). Values of normalized residuals which exceed 2.0 or values of standardized residuals which exceed values of .25 indicate specification error (Everitt, 1984). Kaplan (1988) recently reported that misspecification of the structural relations of a model biases maximum-likelihood path estimates and that the size of the bias seems to be

strongly related to the size of the path that has been incorrectly fixed to zero. Thus, it is important to evaluate residual matrices for indications of specification error. Decisions about respecification, however, should not be based on statistical considerations alone but rather in conjunction with theory and content information. Consideration of theory and content greatly reduces the number of alternate models to investigate and reduces the possibility of taking advantage of sampling error to attain goodness-of-fit (Anderson & Gerbing, 1988; Godwin, 1988).

Other goodness-of-fit indices indicate specific aspects of model fit. These indices also need to be considered given that it is possible for a model to fit quite well as a whole and yet poorly reproduce some important relationships among the constructs (Biddle & Marlin, 1987; Francis, 1988). In structural equation modeling, maximum likelihood estimates of the structural relations between constructs are generated from the information given in the data about each construct. Thus, the hypothesized paths between constructs can be evaluated individually based on the ratio between path estimates and their standard errors. Approximate t -values can be computed for each path to test the null hypothesis that the true path value is zero (Breckler, 1990). The path values, together with their standard errors and t -values provide evidence of the relative importance of the variables in

accounting for the variance of the dependent variables (Bynner & Romney, 1985).

Evaluation of the proposed model. The validity of the proposed model of the relations among women's work conditions, women's stress, and women's and men's marital adjustment (see Figure 1) was evaluated in three steps. First, the goodness-of-fit of the entire model was evaluated using the results of the chi-square test and the values of the GFI and the AGFI. Second, decisions about respecification of the model were made following an examination of the normalized residual matrix. Finally, when the global fit of the model was adequate, the magnitude and direction of the hypothesized paths linking the constructs were assessed.

CHAPTER IV

RESULTS

Description of the Variables

The means and standard deviations of the work conditions scales (e.g., role overload and depersonalization) are presented in Table 2. Women reported moderate levels of work schedule inflexibility, role overload, and inadequate rewards. They reported relatively low levels of noxious work environments and depersonalization. On average, they reported working 29.80 hours per week. The average socio-economic status (SES) was 48.71 for the women in this sample. Examples of occupations and their SES scores are nurse (38.2), secretary (52.5), and bank loans manager (68.2).

Table 3 presents the descriptive statistics for the stress scales. The means and standard deviations of the stress scales indicated that women, for the most part, experienced positive mood and relatively low levels of occupational stress, depression, and anxiety, although there was variability in these measures. Women did report, however, moderate levels of role strain, which is not surprising in a sample of employed women with employed spouses and school-age children.

Table 4 presents the means and standard deviations of the marital adjustment scales for the present sample. Women and their spouses reported high levels of marital

Table 2

Means and Standard Deviations of Work Conditions Scales

Scales	M	SD
<u>Work Conditions</u> ^a		
Work Schedule Inflexibility ^b	2.84	.92
Role Overload ^c	2.07	.55
Noxiousness of Work Environment ^c	1.81	.44
Inadequacy of Rewards ^c	2.36	.59
Depersonalization ^c	1.62	.45
Total Work Hours	29.80	10.31
Socio-Economic Status	48.71	11.04

Note. n = 86.

^aHigher scores on work conditions scales, except total work hours and socio-economic status, indicate more adverse work conditions. ^bPossible range: 1-5.

^cPossible range: 1-4.

Table 3

Means and Standard Deviations of Stress Scales

Scales	M	SD
<u>Work Stress</u>		
Occupational Stress ^a	1.82	.55
Role Strain ^b	2.53	.51
<u>Global Stress</u>		
Depression ^a	1.37	.38
Anxiety ^a	1.72	.45
Mood ^c	3.35	.51

Note. $n = 86$.

^aHigher scores indicate more stress. Possible range: 1-4.

^bHigher scores indicate more stress. Possible range: 1-5.

^cHigher scores indicate more positive mood. Possible range: 1-4.

Table 4

Means and Standard Deviations of Marital Adjustment
Scales

Scales	<u>Women</u>		<u>Men</u>	
	M	SD	M	SD
<u>Marital Adjustment</u> ^a				
Marital Cohesion ^b	3.96	.71	3.96	.83
Marital Consensus ^b	4.78	.48	4.67	.61
Marital Satisfaction ^c	4.87	.46	4.84	.63

Note. n = 86.

^aHigher scores on marital adjustment indicate higher marital adjustment. ^bPossible range: 1-6. ^cPossible range: 1-7.

satisfaction, marital consensus, and marital cohesion. There was variability also in these measures.

Intercorrelations among the work conditions scales, the stress scales, and the marital adjustment scales are presented in Table 5. With respect to the work conditions scales, these figures indicated that work schedule inflexibility was moderately correlated with role overload and total work hours, and mildly correlated with noxious work environment and depersonalization. Role overload was moderately correlated with depersonalization and total work hours, and mildly correlated with noxious work environment. Noxious work environment was mildly correlated with depersonalization, inadequate rewards was mildly correlated with depersonalization and total work hours, and socio-economic status was mildly correlated with noxious work environment and total work hours.

With respect to the stress scales, the work stress scales (occupational stress and role strain) and the global stress scales (depression, anxiety, and mood) were moderately intercorrelated. Occupational stress was correlated with depression and anxiety whereas role strain was correlated only with anxiety. Neither occupational stress nor role strain was correlated with mood. These results suggested that women who experienced more occupational stress and role strain were also more anxious and somewhat more depressed.

Table 5

Intercorrelations Among Work Conditions, Stress, and Marital Adjustment Scales

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. WSIN																	
2. RLOV	.37***																
3. NWKE	.18*	.24*															
4. INRW	-.02	-.09	.09														
5. DPRS	.24*	.41***	.20*	.20*													
6. TWKH	.34***	.43***	.15	-.26**	.10												
7. SECS	-.02	.17	-.26**	-.04	.07	.18*											
8. OCCS	.47***	.54***	.21*	.09	.57***	.24*	-.01										
9. RLSN	.64***	.44***	.14	-.00	.29**	.49***	-.12	.51***									
10. DEPR	.16	.07	.37***	.13	.24*	-.09	-.27**	.30**	.17								
11. ANXY	.46***	.23*	.31**	.04	.27**	.04	-.15	.53***	.29**	.59***							
12. MOOD	-.16	.08	-.13	-.14	-.21*	.02	.11	-.10	-.04	-.41***	-.43***						
13. WMCH	-.18*	.19*	.10	-.13	.07	.04	-.06	.07	-.02	.11	-.01	.21*					
14. WMCN	-.41***	-.13	-.04	.13	-.10	-.16	-.12	-.17	-.28**	-.08	-.24*	.25*	.39***				
15. WMST	-.22*	.02	-.07	-.09	-.08	.13	-.04	-.14	-.09	-.14	-.20*	.24*	.58***	.57***			
16. MMCH	-.05	.12	-.11	-.10	.16	-.09	-.17	.15	-.04	-.13	-.02	.05	.44***	.26**	.38***		
17. MMCN	-.15	.17	-.07	-.00	-.01	.02	-.14	.02	-.12	-.06	-.13	.14	.32***	.48***	.54***	.53***	
18. MMST	-.09	.18	-.20	-.07	.05	.08	-.03	.14	.00	-.12	-.22*	.28**	.32***	.28**	.55***	.65***	.68***

Note. WSIN = Work Schedule Inflexibility; RLOV = Role Overload; NWKE = Noxiousness of Work Environment; INRW = Inadequacy of Rewards; DPRS = Depersonalization; TWKH = Total Work Hours; SECS = Socio-Economic Status; OCCS = Occupational Stress; RLSN = Role Strain; DEPR = Depression; ANXY = Anxiety; MOOD = Mood; WMCH = Women's Marital Cohesion; WMCN = Women's Marital Consensus; WMST = Women's Marital Satisfaction; MMCH = Men's Marital Cohesion; MMCN = Men's Marital Consensus; MMST = Men's Marital Satisfaction.

* $p < .05$. ** $p < .01$. *** $p < .001$.

With respect to the marital adjustment scales, women's reports of marital cohesion, marital consensus, and marital satisfaction were mildly to moderately intercorrelated. Men's reports of these scales were also moderately intercorrelated. Each of the women's three marital adjustment scales were mildly to moderately correlated with each of their spouses' three marital adjustment scales. This last result was expected given that the women and men are reporting on the same relationship.

Principal Components Analyses

Work Conditions

The seven scales of women's work conditions were factor analyzed using the principal-components method. Three factors, accounting for 66.61% of the variance, were retained from the analysis and rotated to simple structure using a varimax rotation. Component 1 was labelled work overload and was defined by high loadings on work schedule inflexibility (.66), role overload (.82), and total work hours (.72). Component 2 was labelled low rewards and was defined by high loadings on inadequacy of rewards (.83) and depersonalization (.64). Component 3 was labelled work status and was defined by high loadings on noxiousness of work environment (-.69) and socio-economic status (.86). These three components were used as the work conditions constructs for all subsequent analyses.

Work Stress

A principal components analysis of occupational stress and role strain revealed one underlying dimension of work stress accounting for 75.72% of the variance. Component loadings were .87 for both occupational stress and role strain.

Global Stress

An overall measure of global stress was derived by performing a principal components analysis on the depression, anxiety, and mood measures. This analysis revealed one underlying dimension of global stress with component loadings of .84 for depression, .85 for anxiety, and -.74 for mood. This component accounted for 65.17% of the variance in the dependent measures.

Marital Adjustment

A principal components analysis of women's reports of marital cohesion, marital consensus, and marital satisfaction identified one underlying dimension of women's marital adjustment accounting for 67.62% of the variance. Component loadings were .79 for marital cohesion, .79 for marital consensus, and .88 for marital satisfaction. Similarly, one underlying dimension of men's marital adjustment was identified from a principal components analysis of men's reports of marital cohesion, marital consensus, and marital satisfaction. This component accounted for 74.50% of the variance and component loadings

were .84 for marital cohesion, .85 for marital consensus, and .90 for marital satisfaction.

Table 6 presents the intercorrelations among the composite measures of women's work conditions (work overload, low rewards, and work status), women's stress (work stress and global stress), and women's and men's marital adjustment. Inspection of this table shows that overall women's work conditions were associated with women's experiences of work stress and global stress. Work overload was highly correlated with work stress and mildly correlated with global stress; low rewards were mildly correlated with global stress; and work status was moderately correlated with global stress. None of the correlations between each of these three work conditions and women's and men's marital adjustment were significant. Work stress and global stress were moderately correlated. Work stress was not correlated with women's or men's marital adjustment and global stress was correlated only with women's marital adjustment. As expected, women's and men's marital adjustment were moderately correlated.

Evaluation of the Proposed Model

The first step in the analysis was to evaluate the hypothesized model, modified to include three types of work conditions. This was accomplished by assessing the goodness-of-fit of the entire model to the observed covariance matrix. Because the measure of goodness-of-fit

Table 6

Intercorrelations Among Composite Measures of Work
Conditions, Stress, and Marital Adjustment

Variables	1	2	3	4	5	6
1. Work Overload						
2. Low Rewards	.00					
3. Work Status	.00	.00				
4. Work Stress	.70***	.18	-.13			
5. Global Stress	.22*	.24*	-.35***	.35***		
6. Women's Marital Adjustment	-.10	-.06	-.02	-.14	-.21*	
7. Men's Marital Adjustment	.03	-.02	.03	.04	-.14	.56***

Note. $n = 86$.

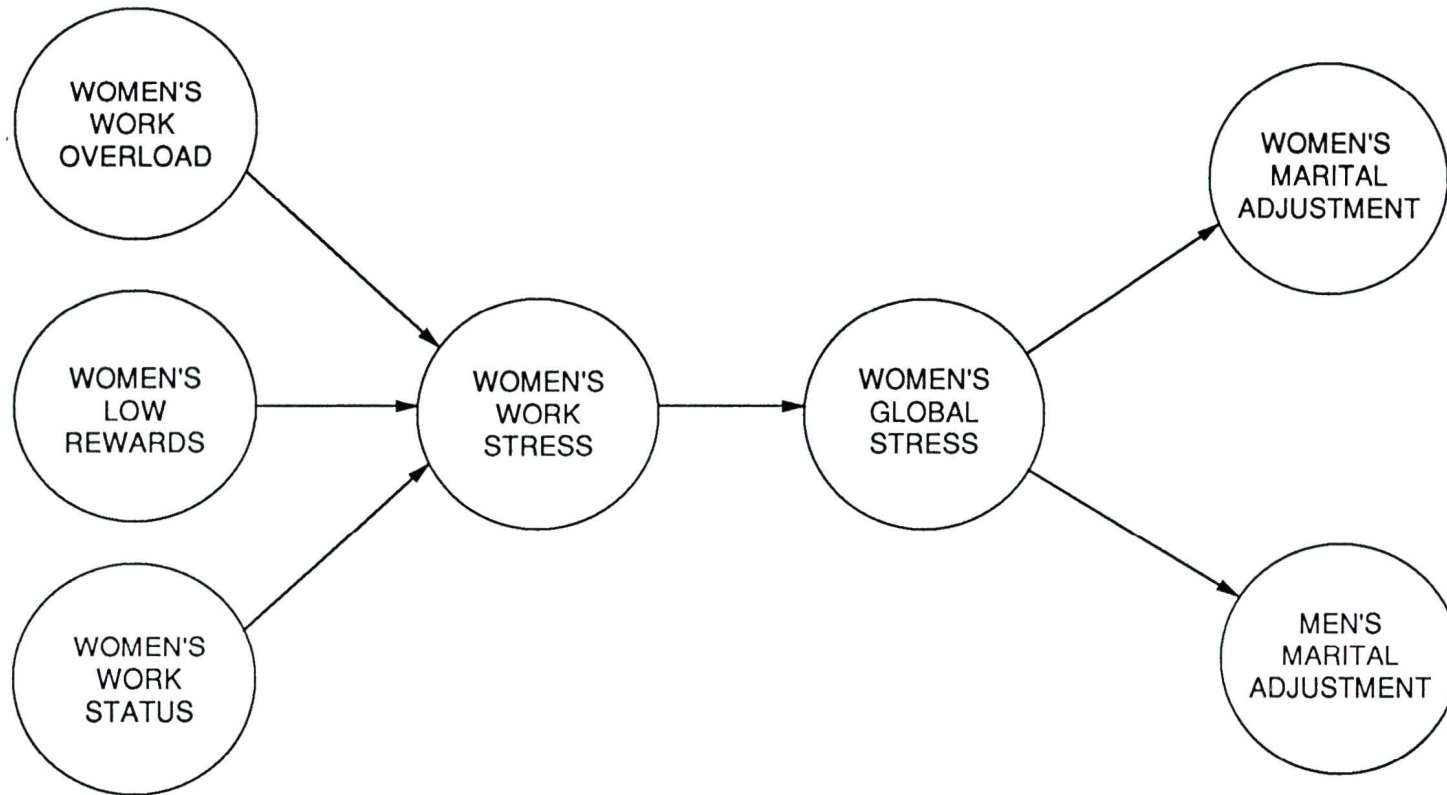
* $p < .05$. ** $p < .01$. *** $p < .001$.

is an overall indicator of the adequacy of the hypothesized model, the results of the chi-square goodness-of-fit test and the goodness-of-fit (GFI) and adjusted goodness-of-fit (AGFI) indices will be presented first for the model. When the chi-square is low and the GFI and AGFI are high, indicating a good fit, the magnitude of the hypothesized paths will then be reported and assessed.

The model is presented in Figure 2. Each endogenous variable was regressed on the variables antecedent to it as specified in this path diagram. That is, women's work stress was regressed on women's work overload, women's low rewards, and women's work status; women's global stress was regressed on women's work stress; and women's marital adjustment and men's marital adjustment were each regressed on women's global stress. This model, then, assesses whether women's and men's marital adjustment can be predicted by women's work conditions through their associations with work stress and, in turn, global stress.

The first step in the analysis was to assess the fit of the model to the observed covariance matrix. If the structure of the observed covariances corresponds to those predicted by the model, the model as a whole is said to have gained support by failing to be disconfirmed (Anderson & Gerbing). When the model was evaluated using this criterion, a moderate fit was found between the empirical and the reproduced covariance matrices: $\chi^2(12, N = 86) =$

Figure 2
Model: Hypotheses



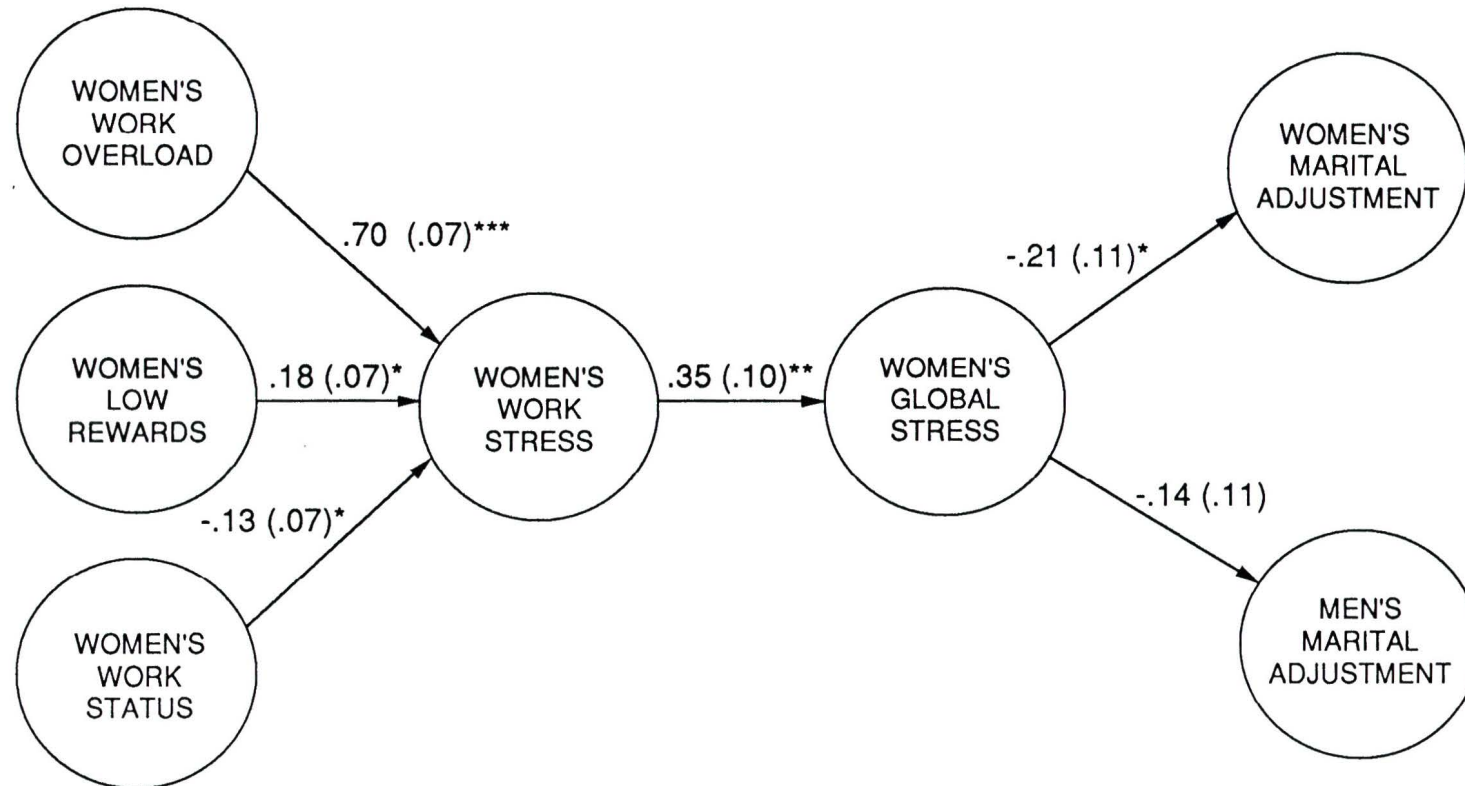
47.09, $p < .001$ (see Figure 3). An examination of the GFI and AGFI confirmed a moderate fit: $\text{GFI} = .88$, $\text{AGFI} = .73$.

The second step in the analysis was to locate the source(s) of misspecification in the model and make decisions about respecification. One method of pinpointing relationships among variables that have been misspecified by the model is to examine the matrix of normalized residuals (Everitt, 1984). The normalized residual matrix shows the differences between the model's predicted covariance matrix and the observed covariance matrix normalized by the square root of their asymptotic variances (Everitt, 1984). Large normalized residuals (e.g., > 2.00) indicate relationships among variables that are not adequately represented by the model. In this case, the largest residuals were observed between women's marital adjustment and men's marital adjustment, and between women's work status and women's global stress.

Using this information about the locations of model misspecification, the model was adapted and tested in ways consistent with the sequence of events proposed by the model in order to determine whether it was possible to improve the fit of this model to the empirical data. According to the sequence of events hypothesized by the model, work conditions were expected to predict stress which, in turn, was expected to predict marital adjustment. Furthermore, women's stress was expected to directly

Figure 3

Model: Standardized path coefficients and standard errors (in parentheses)



Goodness-of-fit: $\chi^2 (12, N = 86) = 47.09, p < .001$. GFI = .88. AGFI = .73.

* $p < .05$. ** $p < .01$. *** $p < .001$.

predict women's marital adjustment. This relationship was not expected to be mediated by men's marital adjustment. Thus, based on these hypotheses and the locations of model misspecification, two paths were added to the model: one path from work status to global stress, and a second path from women's marital adjustment to men's marital adjustment (see Figure 4). An evaluation of the goodness-of-fit of this modified model showed a good fit of the model to the data: $\chi^2(10, N = 86) = 7.49, p > .67$; GFI = .98; and AGFI = .93 (see Figure 5).

Figure 5 also shows the magnitude of the hypothesized paths. First, as hypothesized, the paths from women's work overload, women's low rewards, and women's work status to women's work stress were significant. Second, as hypothesized, the path from women's work stress to women's global stress was significant. The added path linking women's work status and women's global stress was also significant ($t = 2.76, p < .01$). Third, as hypothesized, the path from women's global stress to women's marital adjustment was significant. However, the hypothesized path from women's global stress to men's marital adjustment was not significant. The added path from women's marital adjustment to men's marital adjustment, however, was significant ($t = 4.14, p < .001$). Taken together, the pattern of these results is consistent with the hypothesized model which states that women's work

Figure 4
Modified Model

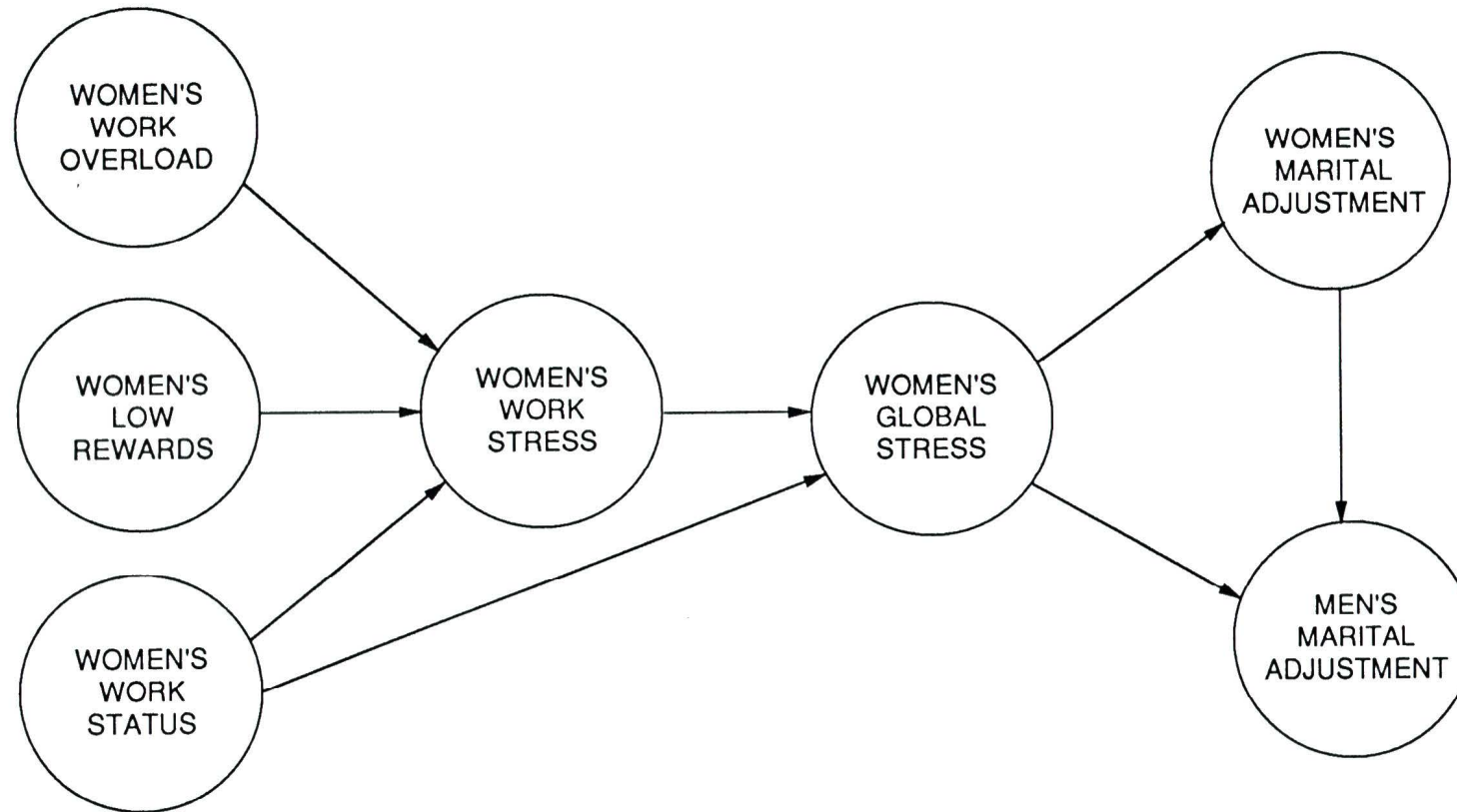
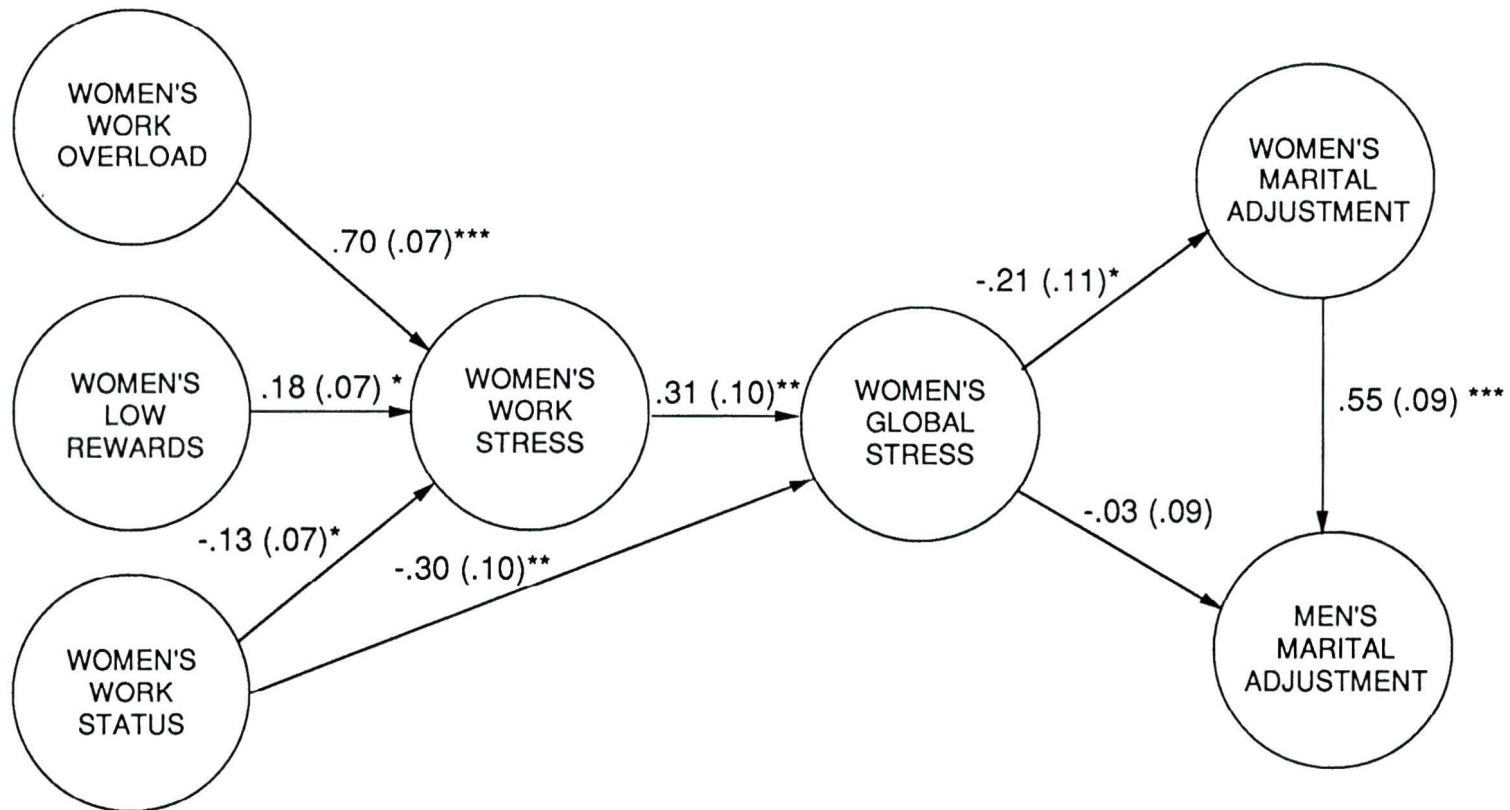


Figure 5

Modified model: Standardized path coefficients and standard errors (in parentheses)



Goodness-of-fit: $\chi^2 (10, N = 86) = 7.49, p > .67$. $GFI = .98$. $AGFI = .93$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

conditions are associated with women's stress and that women's stress mediates relations between women's work conditions and women's marital adjustment. It seems, however, that relations between women's work conditions and men's marital adjustment are mediated by women's marital adjustment as well as by women's stress.

Assessment of Assumptions

Appropriate use of path analysis requires that certain assumptions of this technique be met. This section presents a description of these assumptions and details how they were evaluated in the present study. First, in order to assure unbiased parameter estimates, path analysis assumes that all the exogenous and endogenous variables which were utilized as predictors in the model were measured without error (Godwin, 1988; Schumm, Southerly, & Figley, 1980). Although perfect measurement is rarely achieved in behavioural research, the present study attempted to address this concern by generating a composite measure of each construct using multiple related measures of that construct. The reliabilities of these multiple related measures were relatively high, ranging from .40 to .92 with a median of .86 (see Chapter III).

Second, path analysis assumes that all the exogenous and endogenous variables which were utilized as predictors in the model show discriminant validity; that is, they are not multicollinear (Schumm et al., 1980). If two or more

of the predictor variables are highly correlated, the path estimates may be biased because the correlated predictor variables are competing for the same variance in the endogenous variable (Schumm et al., 1980). The work overload, low rewards, and work status variables could not be multicollinear since they were created from participants' orthogonal component scores on these three constructs. To assure that all the predictor variables were not collinear, each of these variables (e.g., work overload, low rewards, work status, work stress, and global stress) was regressed on the remaining predictor variables to determine the multiple R^2 . None of the resulting R^2 's were expected to approach a value of one as this would indicate that the dependent variable was almost entirely predictable from the predictor variables and therefore collinear. The resulting R^2 's ranged from .16 to .54, with a median of .25. As none of these values approached a value of one, it was concluded that the predictor variables in this study were not multicollinear.

Third, path analysis assumes that all relationships within the model are linear and additive; that is, there are no nonlinear relations and no interaction effects (Godwin, 1988; Schumm et al., 1980). Path estimates may be severely biased if this assumption is not valid and nonlinear relations or interaction effects go undetected. The linearity aspect of this assumption was tested by

examining scatterplots which were created by regressing each variable on all the other variables. Little evidence of curvilinear or other nonlinear relationships was observed.

The presence of interaction effects among the variables was evaluated by adding interaction terms between the predictor variables to the regression equations for each endogenous variable and observing the change in the multiple R^2 following the introduction of these interaction terms. One significant change in the multiple R^2 (R^2 change = .04, $p < .05$) was observed when the work conditions interaction terms were added to the regression equation for work stress. More specifically, there was a significant interaction between low rewards and work status such that frequent low rewards and lower work status predicted higher work stress. However, given the number of analyses involved in testing this assumption, one interaction term was likely to be significant due to the increased risk of type I error.

In conclusion, the modified model provided a better fit to the data than did the hypothesized model. In the present sample, women's work conditions predicted women's stress which, in turn, predicted women's marital adjustment. Men's marital adjustment, however, was predicted by women's work conditions through women's marital adjustment and women's stress, and not solely

through women's stress. The implications of these results will be discussed in the next chapter.

CHAPTER V

DISCUSSION

The present study tested a model in which women's work conditions were associated with women's and men's marital adjustment through their relations with women's stress. In the preceding chapter, the goodness-of-fit of a modified model was evaluated in a sample of two-earner couples. The present chapter discusses the implications of the results, focusing on (1) relations between women's work conditions and women's stress; and (2) relations among women's work conditions and women's and men's marital adjustment. Limitations of the present research and suggested directions for future research are then presented. First, however, the results will be briefly summarized.

Summary of Results

The hypothesized model tested the hypothesis that women's work overload, women's low rewards, and women's work status were associated with women's and men's marital adjustment through their relations with women's work stress and women's global stress (see Figure 3). Evaluation of this model indicated a moderate fit of the model to the data. Examination of the normalized residuals revealed that the model failed to account for relations between women's work status and women's global stress, and relations between women's marital adjustment and men's marital adjustment. Given that the model views stress as a

consequence of exposure to specific work conditions, it is not unlikely that global stress could also result from work conditions. Thus, a path was added from women's work status to women's global stress. Similarly, a path was added from women's marital adjustment to men's marital adjustment because it seems more likely that women's marital adjustment would mediate the relationship between women's global stress and men's marital adjustment as opposed to men's marital adjustment mediating the relationship between women's global stress and women's marital adjustment (see Figure 4).

The fit of the modified model was good, indicating that the relations among women's work conditions, women's stress, and women's and men's marital adjustment were adequately described by this model. The pattern of results as represented by the individual paths suggested that (1) specific work conditions were associated with women's work stress; (2) women's work stress was associated with women's global stress; (3) women's stress (work stress and global stress) mediated the relationship between women's work conditions and their marital adjustment; and (4) women's marital adjustment as well as women's stress mediated the relationship between women's work conditions and men's marital adjustment. A discussion of the implications of these results for the relationship of women's work

conditions to women's stress, and to marital adjustment in two-earner couples is now presented.

Implications

Women's Work Conditions and Stress

Some research has been conducted evaluating the associations between women's employment and stress. Initial studies examined the relations between women's employment and women's stress based on women's employment status or their occupational category. These studies, however, failed to capture what it is about paid work that is important for women's psychological well-being. Other studies have identified specific work conditions (e.g., high job demands, low job control) that seem to be associated with women's well-being. However, an assessment of the importance of many other work conditions, such as financial rewards, co-worker relations, or occupational status, is currently required.

The present study contributed to the literature on women's employment and stress by examining specific features of women's jobs (e.g., low rewards and occupational status) that may be associated with stress. Furthermore, this research used a sample of women employed in a variety of occupations, thus avoiding the criticism put forth by Repetti et al. (1989) that differences in psychological well-being found in studies of women employed within specific occupations (e.g., nursing, teaching) may

reflect differences in job characteristics or differences in the personal characteristics of women who work in these jobs.

Following Pearlin et al.'s (1981) life strains model of stress, research conducted by Kandel et al. (1985) reported that work strains such as overload, inadequate rewards, and depersonalization were associated with depression in women but that the association was an indirect one. That is, work strains were not tied directly to depression but were related indirectly to depression through work stress. The present study replicated Kandel's findings that work overload and low rewards were related to global feelings of stress (e.g., depression) through their relations with work stress.

Although Pearlin and Schooler (1978) initially distinguished between global stress and situation-specific stress (e.g., work stress), they reported associations between work strains and global stress only. The present study found that one work condition, work status, was directly associated with work stress and with global stress. In light of Pearlin's and Kandel's research, it seems possible that certain work conditions (e.g., overload) are initially associated with work stress because they tend to be situationally-based; that is, work overload is a job condition that may fluctuate throughout one's work (e.g., when deadlines have to be met). Exposure to

persistent demands, however, may eventually result in global feelings of stress. Other work conditions, such as work status, may be associated with work stress and with global stress because, by nature, they are more trait-like or ongoing. In our society, work status is an important indicator of one's station in life and tends not to fluctuate once it has been established. Therefore, it is reasonable to suggest that low work status, defined in the present study by low socio-economic status and frequent exposure to noxious work environments, may directly result in feelings of global stress as well as feelings of work stress.

In sum, the present study found that women's work overload, women's low rewards, and women's work status were associated with women's work stress and with women's global stress. These results are consistent with Pearlin and Schooler's (1978) conceptualization of stress as well as with Kandel et al.'s (1985) conceptualization of the process by which work conditions, work stress, and global stress are related.

Women's Work Conditions and Marital Adjustment

Recent research on employed women has focused primarily on the interaction between work and family. This literature suggests general support for the notion that work and nonwork experiences are mutually interdependent. Although there seems to be links between women's work

experiences and their marital adjustment, the research is vague about which specific work conditions are associated with marital relations. Furthermore, few studies of employed women have also collected data from their spouses. Thus, information about the relations between women's work conditions and their spouses' marital adjustment is sparse.

There are at least two processes by which work experiences may be associated with family life: spillover and crossover (Bolger et al., 1989). In both these processes, the daily stresses and satisfactions on the job help shape employees' emotional states at the end of the work day. These psychological states are brought home where they have the potential to influence patterns of family activity and the quality of family relations (Piotrkowski, 1979; Repetti, 1989). Thus, individuals may be affected by events that occur in settings in which other family members participate (Billings & Moos, 1982). The notion of spillover suggests that there is a similarity on a daily basis between what occurs in the workplace and what occurs at home for the same individual. In a crossover process, stress experienced by one spouse at work or at home leads to stress for the other spouse in the opposite domain.

These notions of spillover and crossover have recently received empirical support. Current research (e.g., Bolger et al., 1989; Repetti, 1987, 1989) suggests that feelings

of stress may mediate a process in which employees' work experiences spill over into their marital relations or cross over into their spouses' marital relations. However, studies of husbands' and wives' work conditions and their marital relations have often failed to include measures of marital adjustment for both spouses. Even when these measures have been included, the processes of spillover and crossover have typically been studied separately, omitting a potentially important relationship between spouses' reports of marital adjustment. The present study addressed these issues by evaluating spillover from women's work conditions to women's marital adjustment and crossover from women's work conditions to men's marital adjustment in one model (see Figure 4).

The modified model indicated that women's marital adjustment, as expected, was indirectly associated with women's work conditions through their levels of stress. That is, women's work overload, women's low rewards, and women's work status were related to women's marital adjustment to the extent that women found their exposure to these work conditions stressful. Men's marital adjustment, however, was indirectly associated with women's work conditions through women's marital adjustment as well as women's stress. That is, women's work overload, women's low rewards, and women's work status were related to men's marital adjustment via a process in which women's work

conditions elicited feelings of stress, which, in turn, decreased their marital adjustment. When women's marital adjustment decreased, men's marital adjustment also decreased. No direct relation between women's stress and men's marital adjustment was observed.

In sum, the present study illustrated a process linking women's work conditions to marital adjustment in two-earner couples by evaluating spillover and crossover from work to family in one model. Although previous research (e.g., Repetti, 1987) has suggested that women's work experiences may be associated with men's marital adjustment, a process by which this relationship may occur has not been described. Moreover, the importance of women's marital adjustment as a mediator between women's stress and men's marital adjustment has not been identified.

These results suggest that investigations of the interaction between work and family need to assess both spouses' perceptions of marital relations and to combine studies of spillover and crossover processes in order to capture a more detailed picture of the mechanisms operating within these processes. Two recent studies (e.g., Bolger et al., 1989; Crouter et al., 1989) using such an approach have reported that husbands' feelings of stress and fatigue brought on by negative work experiences were related to low involvement in household tasks and their wives' reports of

negative marital interactions. Bolger et al. (1989) reported that wives increased their household involvement in response to their husbands' work stress and decreased household involvement. However, when wives decreased their household involvement on stressful work days, their work at home was more often deferred to another day rather than being completed by their husbands. Perhaps two-earner couples' division of household labour is yet another variable mediating spillover and crossover processes from work to marital relations.

In another study, Repetti (1989) found that the daily workload experienced by air traffic controllers (ATC) was related to their subsequent behaviour at home. On days when their wives were emotionally supportive, ATC's workload was associated with more social withdrawal (thought to be a short-term healthy response to work stress) and fewer expressions of anger. Perhaps wives' responses to their stressed husbands when the latter return home from work buffer or exacerbate effects of daily work stressors. In the present study, high global stress predicted low marital adjustment in women. It may be that women's feelings of stress, brought on by their work experiences, result in a negative mood. This negative mood is brought home from work and may be associated with less responsiveness to their husbands, perhaps because women's

negative mood generates an inward focus on their own needs to the immediate exclusion of their husbands' concerns.

Wives' reactions to their feelings of stress may determine subsequent interactions with their husbands and their feelings about marital relations. If stressed wives withdraw from interaction for a short period upon their return home from work, they may have time to relax and recharge which, in turn, may improve their mood and enhance interactions with their husbands. If, however, stressed wives choose to interact with their husbands without taking time out for themselves, misinterpretations of conversations may follow, resulting in wives' negative perceptions of marital relations.

Similarly, husbands' responses to their wives' arrival home from a stressful day at work may determine husbands' and wives' perceptions of marital relations. It may be that husbands who offer emotional support to their stressed wives or encourage them to relax once they are home curtail potential negative spillover from work to family. However, husbands may or may not perceive their wives' as stressed and may attempt to interact with them. Their stressed wives may withdraw from this interaction or respond to their husbands in anger, resulting in negative feelings of marital adjustment. Husbands, on the other hand, may feel that their wives' withdrawal or anger is not justified and

they, in turn, may feel angry, resulting in negative perceptions of marital relations.

It seems, then, that spillover and crossover from work to family may be complex processes. The research by Bolger et al. (1989), Crouter et al. (1989), and Repetti (1987), together with the present study, clearly highlight the importance of testing models which include both spouses' perceptions of their work and family experiences.

Social Policy

The present study may also have implications for social policy. First, employed women need to be educated about the specific features of their workplaces that have been associated with psychological well-being. After stressful work conditions have been identified, women can choose appropriate coping strategies (e.g., support groups, stress management) should they remain in their jobs, or they can be alerted to work conditions that need to be considered should they choose to change jobs. Information about work conditions and psychological well-being could also be made available to high school and post-secondary school students. Educating students about the impact of specific work conditions on employee health would enable them to make informed choices as they prepare to enter the workforce.

Second, employers need to be educated about how the work conditions within their organizations (e.g., work

overload, low rewards) are associated with the psychological well-being of their employees. The literature could be used to inform employers about organizational changes (e.g., reasonable deadlines) that would promote psychological well-being. If the work is stressful by nature (e.g., clerical or factory jobs), employers could offer their employees services (e.g., counselling or stress management) that may buffer the impact of ongoing exposure to stressful work conditions.

Third, as the processes of spillover and crossover receive empirical support, employers must be informed about organizational changes (e.g., work schedule flexibility, job sharing, paid maternity and paternity leaves, and employer-based child care) that would support employees' attempts to balance their work and family responsibilities, thereby making them a more attractive employer. However, only persuasive data will convince employers of the long-term feasibility (e.g., increased productivity, less use of health benefits, less absenteeism) of costly programs.

Limitations

The results of the present study should be evaluated in light of limitations of the data and of the design. With respect to the data, this study relied entirely on women's and men's self-reports. Although self-reports may be accurate measures of the constructs assessed in this research and the reliabilities of the scales were improved

by using multiple indicators of each construct, the accuracy and validity of the constructs would be enhanced by objective reports of subjects' work environments and behavioural indices of stress.

Characteristics of the sample also limit the generalizability of the results. As expected, 38% of the women in this study were employed in clerical positions. However, an additional 37% of women were employed in managerial, administrative and professional positions. Thus, the results may differ for a more representative sample of employed women; that is, a sample in which the distribution of women's jobs reflects their concentration in lower level positions. In addition, the participants in this study were spouses in two-income families. Women's experiences of work and stress may be very different when they are the principal source of income in a two-parent family or when they are single parents. While single parents do not usually have to negotiate with an employed spouse regarding schedules or priorities, neither do they have the income, assistance, or emotional support that a spouse may provide.

The non-longitudinal design of this study is also limiting. Although the present research has described a process in which women's work conditions spill over and cross over into women's and men's marital relations, it cannot be assumed that the actual process experienced by

two-earner couples corresponds to this pattern without longitudinal research. Cross-sectional models describe relations among variables at only one point in time, they do not specify how values of variables are related to prior values of variables, and they do not specify the length of the time lag being modelled (Gollab & Reichardt, 1987). Because causal effects take time to occur, it follows that no cross-sectional model can accurately depict a causal relationship.

Finally, the use of structural equation modeling techniques needs to be qualified. Although this mode of analysis has advanced the use of correlational data for theory testing, it is not sufficient to determine causality. Instead, modeling techniques test the plausibility of theoretical models, with the hope of demonstrating the inadequacies of some theories (Maruyama & McGarvey, 1980). Such techniques are not intended to accomplish the impossible task of deducing causal relations from the values of correlation coefficients and are limited by the nature of the data to which they are applied. Furthermore, an adequate fit of a model to the data does not imply that the data do not also fit other models equally well. Drawing well-supported conclusions from the results of one model does not mean that equally plausible conclusions could not be drawn from other, perhaps conflicting, models (Bentler, 1980; Godwin, 1988).

Suggestions for Future Research

Studies of the interaction between work and family still have a number of questions to address. Future research needs to follow the designs used by Bolger et al. (1989), Crouter et al. (1989), and Repetti (1987, 1989) which elicit frequent reports from both spouses' about their work and family experiences and measure individual activities and interactions rather than just global ratings of psychological well-being or adjustment. Perhaps most essential to this area of research is longitudinal studies which would permit better assessments of the sequence of events involved in the work-family interface.

An important question remains as to what extent the measures used to tap women's work conditions actually represent their experiences at work. Current measures of women's work conditions were developed in studies involving men only. Although it is likely that some of the work conditions experienced by women and men are similar and that any differences between women's and men's levels of work stress may be a function of women's overrepresentation in low level jobs, research needs to confirm the assumption that there are not other work conditions to which women are exposed that men are not.

Future studies of women's employment and psychological well-being also need to investigate a variety of work conditions (e.g., nonutilization of personal skills and

resources on the job) and how these work conditions may be differentially related to women's experiences of work stress and global stress. For instance, research by Burke and colleagues (Burke, 1982; Burke, Weir, & DuWors, 1980) and Bolger et al. (1989) has indicated that interpersonal conflicts with others at work may be particularly stressful. However, it is not known what it is about interpersonal conflicts that makes them stressful or whether interpersonal conflicts are associated with work stress and/or global stress.

The literature reviewed for this study has emphasized the potentially harmful effects of work rather than its benefits. Not all work conditions (e.g., job control), however, are stressful, and even for those that are, the financial and psychological benefits probably outweigh the costs for most employees. Many studies have documented the positive effects of employment for women (e.g., improved physical and psychological health, and increased self-esteem). Recent research has indicated a protective function of engagement in multiple roles (e.g., Baruch et al., 1987) and other studies (e.g., Kandel et al., 1985) have found that paid employment may buffer the psychological effects of other sources of stress (e.g., marital stress). A goal for future research would be to identify more work conditions that enhance employees' psychological well-being.

Most of the research on the interaction between work and family has emphasized work's impact on the family. Karasek et al. (1987) concluded that the direction of association among work stress, psychological well-being, and family stress was strongest from work stress to well-being and family stress. Pleck and Staines (1985) also proposed that the direction of association between psychological distress and work was strongest from work to distress. The present study investigated spillover and crossover from work to home and not from home to work. This was because work conditions were expected to be associated unidirectionally with marital and family relations. Employees' exposure to specific work conditions (e.g., low rewards) was not expected to fluctuate as a function of employees' marital and family relations.

However, that does not imply that marital and family relations do not exert an important influence on women in the workplace. Crouter (1984) reported that employed women with young children were especially likely to report high levels of negative spillover. In their investigation of spillover and crossover processes, Bolger et al. (1989) reported evidence of spillover and crossover from work to home and from home to work for men and women. They found that men were more likely than women to bring their stresses from home into the workplace and that there was less stress spillover from work to home than might be

expected. It seems then that experiences at home may be just as likely to spill over into experiences at work as work is to spill over into family life. Thus, future research needs to develop and test models addressing the reciprocal linkages between work and family in the lives of employed couples in order to develop more balanced picture of individuals' simultaneous involvement in the workplace and the family.

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Appendix A

Job-Family Management Scale

Please circle the number corresponding with the appropriate answer.

On days when you are working, how easy or difficult is it for you to arrange your time to do each of the following?

	Very Easy	Some- what Easy	Neither Easy Nor Difficult	Somewhat Difficult	Very Difficult	Does Not Apply
To avoid the rush hour	1	2	3	4	5	N/A
To go to work a little later than usual if you need to	1	2	3	4	5	N/A
To go to health care appointments	1	2	3	4	5	N/A
To go on errands (e.g., shoe repair, post office)	1	2	3	4	5	N/A
To go shopping (e.g., clothes, groceries)	1	2	3	4	5	N/A
To make telephone calls for appointments or services	1	2	3	4	5	N/A
To take care of your household chores	1	2	3	4	5	N/A

	<u>Very Easy</u>	<u>Some-what Easy</u>	<u>Neither Easy Nor Difficult</u>	<u>Somewhat Difficult</u>	<u>Very Difficult</u>	<u>Does Not Apply</u>
To help or visit neighbours or other friends	1	2	3	4	5	N/A
To participate in community activities	1	2	3	4	5	N/A
To adjust your work hours to the needs of other family members	1	2	3	4	5	N/A
To have your meals with your family	1	2	3	4	5	N/A
To spend fun or educational time with your family	1	2	3	4	5	N/A
To take your children to health care appointments	1	2	3	4	5	N/A
To take your children to or from a child-care setting or school	1	2	3	4	5	N/A
To go places with your children after school	1	2	3	4	5	N/A
To go to school events and appointments for your children	1	2	3	4	5	N/A

	<u>Very Easy</u>	<u>Some- what Easy</u>	<u>Neither Easy Nor Difficult</u>	<u>Somewhat Difficult</u>	<u>Very Difficult</u>	<u>Does Not Apply</u>
To make alternative child-care arrangements when necessary (e.g., school holidays)	1	2	3	4	5	N/A
To be home when your children get home from school	1	2	3	4	5	N/A
To stay home with a sick child	1	2	3	4	5	N/A
To make arrangements for children during summer vacations	1	2	3	4	5	N/A
To have relaxed, pleasant time with children	1	2	3	4	5	N/A

Appendix B

Role Overload Scale

Please circle the number corresponding with the appropriate answer.

How much of the time:	<u>Almost Always</u>	<u>Much of the Time</u>	<u>Once in a While</u>	<u>Never or Almost Never</u>
Do you have more work than you can handle?	1	2	3	4
Are you under pressure to keep up with new ways of doing things?	1	2	3	4
Do you work too many hours?	1	2	3	4
	<u>Never</u>	<u>Once in a While</u>	<u>Fairly Often</u>	<u>Very Often</u>
Do people come to you for your opinions about how the work should be done?	1	2	3	4
Do you have to do tasks at work that no one else wants to do?	1	2	3	4

Noxiousness of Work Environment Scale

Please circle the number corresponding with the appropriate answer.

How much of the time:	<u>Almost Always</u>	<u>Much of the Time</u>	<u>Once in a While</u>	<u>Never or Almost Never</u>
Do you have a lot of noise on the job?	1	2	3	4
Do you work in a lot of dirt or dust?	1	2	3	4
Are you in danger of illness or injury on the job?	1	2	3	4

Do you do the same thing over and over again?	1	2	3	4
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Inadequacy of Rewards Scale

	Strongly <u>Agree</u>	Somewhat <u>Agree</u>	Somewhat <u>Disagree</u>	Strongly <u>Disagree</u>
The income I earn is just about right for the job I have.	1	2	3	4
I can count on a steady income.	1	2	3	4
My chances for increased earnings in the next year or so are good.	1	2	3	4
The work I'm doing now is preparing me for a better work situation later.	1	2	3	4
My work has good fringe benefits such as sick pay and retirement.	1	2	3	4
There is always a chance I may be out of a job.	1	2	3	4

Depersonalization Scale

	<u>Never</u>	Once in a <u>While</u>	Fairly <u>Often</u>	Very <u>Often</u>
Do people at work act toward you as if you are a person without real feelings?	1	2	3	4
Do people at work treat you in an unfriendly way?	1	2	3	4
Are you told that you're doing a good job?	1	2	3	4
Are you treated unfairly by another person at work?	1	2	3	4

Appendix C

Occupational Stress Scale

Please circle the number corresponding with the appropriate answer.

When you think of your day-to-day job, to what extent do you feel:

	<u>Very</u>	<u>Somewhat</u>	<u>Only a Little</u>	<u>Not at All</u>
Bothered or upset?	1	2	3	4
Worried?	1	2	3	4
Relaxed?	1	2	3	4
Frustrated?	1	2	3	4
Unhappy?	1	2	3	4
Contented?	1	2	3	4
Tense?	1	2	3	4

Appendix D

Job-Family Role Strain Scale

Please circle the number corresponding with the appropriate answer. How often do you feel each of the following?

	<u>Always</u>	<u>Most of the Time</u>	<u>Some of the Time</u>	<u>Rarely</u>	<u>Never</u>	<u>Does Not Apply</u>
My job keeps me away from my family too much.	1	2	3	4	5	N/A
I feel I have more to do than I can handle comfortably.	1	2	3	4	5	N/A
I have a good balance between my job and my family time.	1	2	3	4	5	N/A
I wish I had more time to do things for the family.	1	2	3	4	5	N/A
I feel physically drained when I get home from work.	1	2	3	4	5	N/A
I feel emotionally drained when I get home from work.	1	2	3	4	5	N/A
I feel I have to rush to get everything done each day.	1	2	3	4	5	N/A
My time off from work does not match other family members' schedules well.	1	2	3	4	5	N/A
I feel I don't have enough time for myself.	1	2	3	4	5	N/A

	<u>Always</u>	<u>Most of the Time</u>	<u>Some of the Time</u>	<u>Rarely</u>	<u>Never</u>	<u>Does Not Apply</u>
I worry that other people at work think my family interferes with my job.	1	2	3	4	5	N/A
I worry whether I should work less and spend more time with my children.	1	2	3	4	5	N/A
I find enough time for the children.	1	2	3	4	5	N/A
I worry about how my kids are while I'm working.	1	2	3	4	5	N/A
I am comfortable with the arrangements for my children while I am working.	1	2	3	4	5	N/A
Making arrangements for my children while I work involves a lot of effort.	1	2	3	4	5	N/A
I worry that other people feel I should spend more time with my children.	1	2	3	4	5	N/A

Appendix E

Depression Scale

Below is a list of ways you might have felt or behaved. Following each statement please write down the letter corresponding with how often you have felt this way during the past week.

- A = Rarely or None of the Time (Less than 1 Day)
B = Some or a Little of the Time (1-2 Days)
C = Occasionally or a Moderate Amount of Time (3-4 Days)
D = Most or All of the Time (5-7 Days)

During the past week:

- I was bothered by things that usually don't bother me. _____
- I did not feel like eating; my appetite was poor. _____
- I felt that I could not shake off the blues even with help from my family or friends. _____
- I felt that I was just as good as other people. _____
- I had trouble keeping my mind on what I was doing. _____
- I felt depressed. _____
- I felt that everything I did was an effort. _____
- I felt hopeful about the future. _____
- I thought my life had been a failure. _____
- I felt fearful. _____
- My sleep was restless. _____
- I was happy. _____
- I talked less than usual. _____
- I felt lonely. _____
- People were unfriendly. _____
- I enjoyed life. _____
- I had crying spells. _____

- A = Rarely or None of the Time (Less than 1 Day)
B = Some or a Little of the Time (1-2 Days)
C = Occasionally or a Moderate Amount of Time (3-4 Days)
D = Most or All of the Time (5-7 Days)

I felt sad.

I felt that people dislike me.

I could not get "going".

Appendix F

State Anxiety Scale

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number beside each statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	<u>Not at</u> <u>All</u>	<u>Somewhat</u>	<u>Moderately</u> <u>So</u>	<u>Very Much</u> <u>So</u>
I feel calm	1	2	3	4
I feel secure	1	2	3	4
I am tense	1	2	3	4
I am regretful	1	2	3	4
I feel at ease	1	2	3	4
I feel upset	1	2	3	4
I am presently worrying over possible misfortunes	1	2	3	4
I feel rested	1	2	3	4
I feel anxious	1	2	3	4
I feel comfortable	1	2	3	4
I feel self-confident	1	2	3	4
I feel nervous	1	2	3	4
I am jittery	1	2	3	4
I feel "high strung"	1	2	3	4
I am relaxed	1	2	3	4
I feel content	1	2	3	4
I am worried	1	2	3	4

	<u>Not at</u> <u>All</u>	<u>Somewhat</u>	<u>Moderately</u> <u>So</u>	<u>Very Much</u> <u>So</u>
I feel over-excited and "rattled"	1	2	3	4
I feel joyful	1	2	3	4
I feel pleasant	1	2	3	4

Appendix G

Mood Scale

HOW TO ANSWER: Following are some statements about how people like you may behave. Some of the statements may be true of your own behaviour and others may not apply to you. For each statement we would like you to indicate if the statement is usually true of you, is more true than false of you, is more false than true of you, or is usually false of you. There are no "right" or "wrong" answers because all people behave in different ways. All you have to do is answer what is true for you.

On the line to the left of each statement write an A if the statement is usually false for you, write a B if the statement is more false than true for you, write a C if the statement is more true than false for you, or write a D if the statement is usually true for you.

A = usually FALSE

C = more TRUE than false

B = more FALSE than true

D = usually TRUE

-
- _____ I laugh and smile at a lot of things.
- _____ I do not laugh or smile at many things.
- _____ I smile often.
- _____ I do not find that I laugh often.
- _____ My mood is generally cheerful.
- _____ I laugh several times a day.
- _____ Generally I am happy.

Appendix H

Marital Cohesion Scale

Do you and your mate engage in outside interests together?
(check one)

- ☐ All of them
☐ Most of them
☐ Some of them
☐ Very few of them
☐ None of them

How often would you say the following events occur between you and your mate? (circle the appropriate answer)

	<u>Never</u>	<u>Less Than Once a Month</u>	<u>Once or Twice a Month</u>	<u>Once or Twice a Week</u>	<u>Once a Day</u>	<u>More Often</u>
Have a stimulating exchange of ideas	1	2	3	4	5	6
Laugh together	1	2	3	4	5	6
Calmly discuss something	1	2	3	4	5	6
Work together on a project	1	2	3	4	5	6

Marital Consensus Scale

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occasionally Disagree</u>	<u>Fre- quently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
Handling family finances	1	2	3	4	5	6

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occa- sionally Disagree</u>	<u>Fre- quently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
Matters of rec- reation	1	2	3	4	5	6
Religious matters	1	2	3	4	5	6
Friends	1	2	3	4	5	6
Conven- tionality (correct or proper behaviour)	1	2	3	4	5	6
Philosophy of life	1	2	3	4	5	6
Ways of dealing with parents or in-laws	1	2	3	4	5	6
Aims, goals, and things believed important	1	2	3	4	5	6
Amount of time spent together	1	2	3	4	5	6
Making major decisions	1	2	3	4	5	6
Household tasks	1	2	3	4	5	6
Leisure time interests and activ- ities	1	2	3	4	5	6

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occasionally Disagree</u>	<u> Frequently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
Career decisions	1	2	3	4	5	6

Marital Satisfaction Scale

	<u>All the Time</u>	<u>Most of the Time</u>	<u>More Often than Not</u>	<u>Occasionally</u>	<u>Rarely</u>	<u>Never</u>
In general, how often do you think that things between you and your partner are going well?	1	2	3	4	5	6
Do you confide in your mate?	1	2	3	4	5	6
How often do you discuss or have you considered divorce, separation, or terminating your relationship?	1	2	3	4	5	6
How often do you or your mate leave the house after a fight?	1	2	3	4	5	6
How often do you and your mate quarrel?	1	2	3	4	5	6
How often do you and your mate "get on each other's nerves"?	1	2	3	4	5	6

Do you kiss your mate? (check one)

- ☐ Every day
☐ Almost every day
☐ Occasionally
☐ Rarely
☐ Never

Which of the following statements best describe how you feel about the future of your relationship? (check one)

- ☐ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
☐ I want very much for my relationship to succeed, and will do all I can to see that it does.
☐ I want very much for my relationship to succeed, and will do my fair share to see that it does.
☐ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
☐ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
☐ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

The numbers on the following line represent different degrees of happiness in your relationship. The middle point, "happy" represents the degree of happiness of most relationships. Please circle the number which best describes the degree of happiness, all things considered, of your relationship.

1 2 3 4 5 6 7

Extremely	Fairly	A Little	Happy	Very	Extremely	Perfect
Unhappy	Unhappy	Unhappy		Happy	Happy	

VITA

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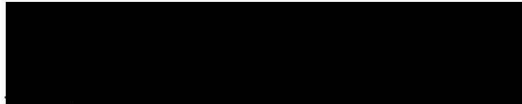
Dean's List Scholar Acadia University 1984

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Title of Thesis: A Process Model for Understanding Links
Between Women's Work Conditions and
Marital Adjustment in Two-Earner Couples

Author



Heather Ann Sears

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