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THE EFFECTS OF
OCCUPATIONAL STRESS ON THE FAMILY
IN FIVE OCCUPATIONS

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To
Heather

Abstract

An experimental study was conducted which investigated the effects of various sources of occupational stressors, life event stressors, and housework stressors on a number of criterion variables assessing the levels of family disruption, marital stress, marital communication, and psychological health. In addition, the moderating effects of both social support mechanisms and the personality construct of locus of control were investigated. An extension of the design included comparing the results of this investigation across five occupational groups, sampling the occupational categories of professional (represented by barristers and solicitors), intermediate non-manual (represented by primary school teachers and insurance salesmen), skilled non-manual (represented by ambulance officers), and semi-skilled non-manual (represented by prison officers). In addition, the levels of effects on the four criterion variables were assessed from two viewpoints, that of the husband's and that of the wife's. A number of reviews were made, covering theoretical issues concerning the type of model proposed, a discussion of various concepts of the term stress, an analysis of sources of occupational stress, a discussion of two moderators of the effects of stress, and a

comprehensive review of previous studies investigating the effects of stress on the family.

The first stage of the analysis of the results utilized analysis of variance and multiple regression to compare the occupational groups across the various measures, and to investigate the relationship between the occupational and life event stressors and the various criterion variables for each occupational group separately. The results obtained for the comparisons of occupational groups suggested that prison officers perceived their job as being more stressful than did the other occupational groups, on four of the dimensions, those of role conflict, role ambiguity, work underload, and co-worker conflict. In addition, the results indicated that prison officers were consistently high in their assessment of the impact of their occupation on the family. As well, a comparison of moderator variables across the occupational groups showed significant differences in three of the social support variables. These were support by supervisor, co-workers and friends. Support by co-workers and support by friends tended to be similar for all groups, suggesting that the job incumbents may see these two as basically the same. For the personality measure of locus of control, the results showed that prison officers tended towards external orientation and insurance salesmen tended towards internal orientation. For the investigation of the relationship between the stressors and the criterion variables, the overall pattern suggested that job qualities (work overload, work underload) and organizational role (role conflict, role ambiguity) were important stressors effecting marital relationships. For the

level of impact on the family, the stressor variable assessing the lack of free time as a result of work was most important. Within these broad statements of results however, many specific findings were indicated, showing clear differences in effects across the various occupational groups. For example, prison officers perceived a higher impact on the family from their job, in comparison with the other occupational groups studied.

The second stage of the analysis of results used multiple regression to investigate the interaction between all the variables in the design for all the occupational groups combined. Both the stressor and the moderator variables were considered as predictor variables in the regression analysis, with the criterion variables corresponding to the various effects of stress measures. Differences in the effects of various stressors and moderators were obtained, and clear indications of overlap between the husband's and wife's stressors were found. For example, the stressor category of the wife's stresses of housework was found to have significant adverse effects on the level of a number of the husband's criterion variables.

Finally, the results obtained clearly showed the importance of assessing stress from a number of areas, including both the husband's and wife's occupation and the wife's housework. In addition, the importance of moderator variables, especially in the area of social support, was clearly shown. The value of measuring a number of stress sources and moderators was demonstrated by the significant increases in the levels of explained variance over those usually obtained in research of this nature.

Preface

The research presented in the following pages developed as a result of a major study of the sources and effects of occupational stress in prison officers (Voges, Long, Roache and Shouksmith, 1982). It became clear to the researchers in this study that a major area of impact of occupational stress was on the family and children of the job incumbent. Surprisingly, research in this vitally important area was almost nonexistent.

In addition, the variability of the effects of stress on the individual suggested that some factor was present to moderate the effects of the various stressors. The literature has shown the importance of moderator variables in this area. In view of this, any current research into occupational stress must take into account the complexities of the situation and the effects of the relevant moderators. This was attempted in the present research.

The following pages present theoretical and empirical justifications for a three-factor model of stress. Despite its apparent simplicity, this model subsumes within it the possibility for complexity, taking into account the importance of interaction between the three major factors comprising the model. It is hoped that this

presentation of the research will show that methodological approaches already in existence have not been used to their full capability. When extended as outlined here, these approaches show considerable explanatory power in investigating the complex link between occupational stress and its effects.

My thanks are due to both Doctor Nigel Long and Professor George Shouksmith for their valuable assistance and critical comments. Between them, they have made the last three years of my academic life a rewarding and stimulating experience.

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SECTION 1

INTRODUCTION

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The investigation of stress within organizations over the last two decades has been a continual process of review and refinement of both methodology and models. Stress within organizations has been approached from various viewpoints, some of which include the effects of stress, such as psychological and physiological disorders (Cobb and Rose, 1973), coronary heart disease risk (Crump, Cooper and Maxwell, 1981), the effects on the family (Burke and Bradshaw, 1981), the development of coping responses (Burke and Belcourt, 1974), and the influence of social support (Abdel-Halim, 1982).

The types of models which have been developed have increased in complexity over this time, but virtually all recent approaches can be subsumed under a form of model referred to here as the three-factor model (See Section 1.1). This suggests that all the variables available for investigation in occupational stress research can generally be classified within three categories, or factors. Using the terminology of a regression model (See Sections 5 and 6), the three categories of variables under investigation can be considered as the predictor, moderator, and criterion variables. The predictor variables are contained in the "stressor" factor, which covers the range of occupational and life demands which impinge on the person. The criterion variables are contained in the "effects" factor, which examines the responses produced as a result of these demands. Finally, the moderator variables relate to the "person" factor, and cover the types of personal, demographic, and social variables that

are likely to moderate the relationship between the stressors and their effects. The basic structure of this type of model is considered in more detail in Section 1.1. Recently, this three-factor model has received some criticisms, and these are outlined and discussed in Section 1.2.

The main emphasis of the research to be presented here has been to consider the usefulness and implications of this three factor model in the specific area of the effects of occupational stress on the family. The proposition that, for the majority of job incumbents the family is very strongly effected by what occurs at work, has been slow in being accepted. However, a large amount of published material in this particular area is beginning to emerge. Recent literature, as well as previous studies, are discussed briefly in Section 1.3, and in more detail in Section 3.

A secondary area of interest which emerged as the design developed was the comparison of various occupational groups over the range of variables measured. Some previous research in this area is discussed in Section 1.4, and the results of the present comparison are presented in Section 5.

The remainder of the present section expands the points briefly discussed above. The following two sections then present a comprehensive literature review. Section 2 considers in more detail the various concepts of stress which have been developed, as well as a theoretical framework for conceptualising sources of stress within organizations. Section 3 reviews the areas of specific interest in this research, those covering the effects of occupational stress on the family, and the influence of a number of moderator variables.

Following these literature reviews, Section 4 outlines the design and method of the study, as well as summarising the results of the original study on which the present research was based. This original study was used to determine and confirm the choice of the criterion variables incorporated into the present research. The results of the present research are presented in Sections 5 and 6, with Section 5 concentrating on the various occupational groups studied, and Section 6 investigating the interaction between the variables measured. Finally, Section 7 outlines the conclusions reached.

The broad area of occupational stress research is an important one, and the more specific aspect of the effects of stress on the family has received more attention in the literature as its prevalence and importance has been recognized by current researchers. The research to be outlined in the following pages is designed to show that methods already developed can be extended and used to produce worthwhile results, which are of value to those involved in the area of stress research, and especially those concerned with the work/home interface.

1.1 Models of stress

A variety of models and definitions of stress have been developed over the past three decades, although most recent reviews (Cox, 1978; Laux and Vossel, 1982; Lazarus and Launier, 1978; Mason, 1975a, 1975b; McGrath, 1970a), suggest these models can be broadly identified under three main approaches. These three approaches are the response-based, stimulus-based, and interactional models.

The response-based model was developed mainly from the work of Selye (1956, 1976), who was one of the earliest researchers in the stress field. In his model, (stress is defined as a state manifested by a specific syndrome (the General Adaptation Syndrome), which consists of all the non-specifically induced changes within a biological system (Selye, 1976). This syndrome is a specific pattern of responses which is taken as evidence that the person is, or was, in a stressful situation. Stress is considered to occur within the person as a response to a certain situation.)

In contrast to this approach, the stimulus-based model described stress in terms of the stimulus characteristics of the environment, which were recognized as distressing in some way. This external stress then resulted in strain in the person. Most early work in the area of life stress was implicitly based on this particular model (Holmes and Rahe, 1967; Wolff, 1953).

Despite the obvious difference in emphasis between these two types of models, both share similar characteristics in that they could be conceptualised as two-factor models, investigating the "stressor" factor (the external event or situation) and the "effects" factor (the pattern of responses invoked by the stressor). Such early types of models tended to ignore the third factor developed in later interactive models, that of the "person" factor. This referred to the range of personal and social resources available to an individual which mitigate the effects of the stressor factor. Eventually, such two factor models were displaced by these three-factor interactive models, which were proposed to overcome the inadequacies of models conceptualising stress only in terms of stimulus or response parameters (McGrath, 1970a, 1976).

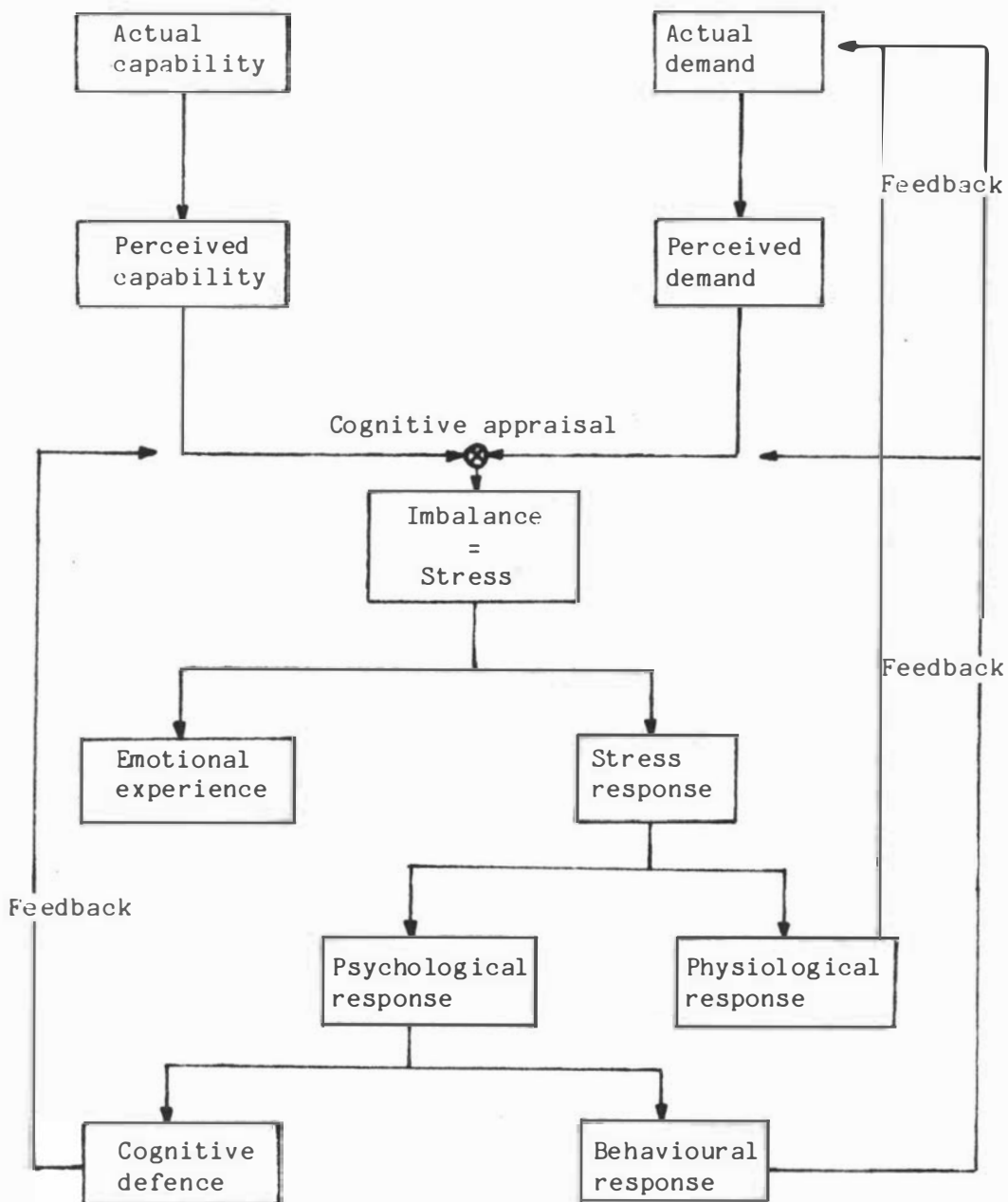


Figure 1.1 The transactional model of stress (from Cox, 1978, p.19).

A number of examples of such interactive models can be given, but all of them use in some way a person's cognitive appraisal of the external situation (Lazarus, 1966). Two examples of such models are the transactional models of Cox and Mackay (Cox, 1978; Mackay and

Cox, 1979), and the Person-Environment Fit model (Campbell, 1974; French and Kahn, 1962; French, Rodgers and Cobb, 1974; Harrison, 1978).

The transactional model (Cox, 1978; Mackay and Cox, 1979) describes stress as part of a complex dynamic system of transaction between the person and the environment. The system moves through five recognizable stages, as outlined in Figure 1.1. Initially, there is an actual demand relating to the person in the environment. This demand can be either in the external environment, or within the person, such as psychological or physiological needs. In the second stage, the person has a perception of this demand and of their ability to cope with it. When there is an imbalance between the perceived demand and the perceived capability, stress arises. The response to this stress then follows, and can result in changes in the external environment, as well as to the person's psychological and physiological state. The consequences of the responses to this stress follow, with both the perceived and actual consequences being important. Cox (1978) considered the fifth stage to be the presence of feedback, which could occur at any stage in the system. For example, feedback from the behavioural response may lead to a change in the actual demand in the system.

The second transactional model to be considered here is the Person-Environment Fit model (Harrison, 1978), which is described as the interaction between a person and his environment in terms of their "fit" or "congruence" with each other. Two basic distinctions are made: the person versus their environment, and actual objects and events versus the person's perception of them. These distinctions lead to four concepts, the objective and subjective environment, and

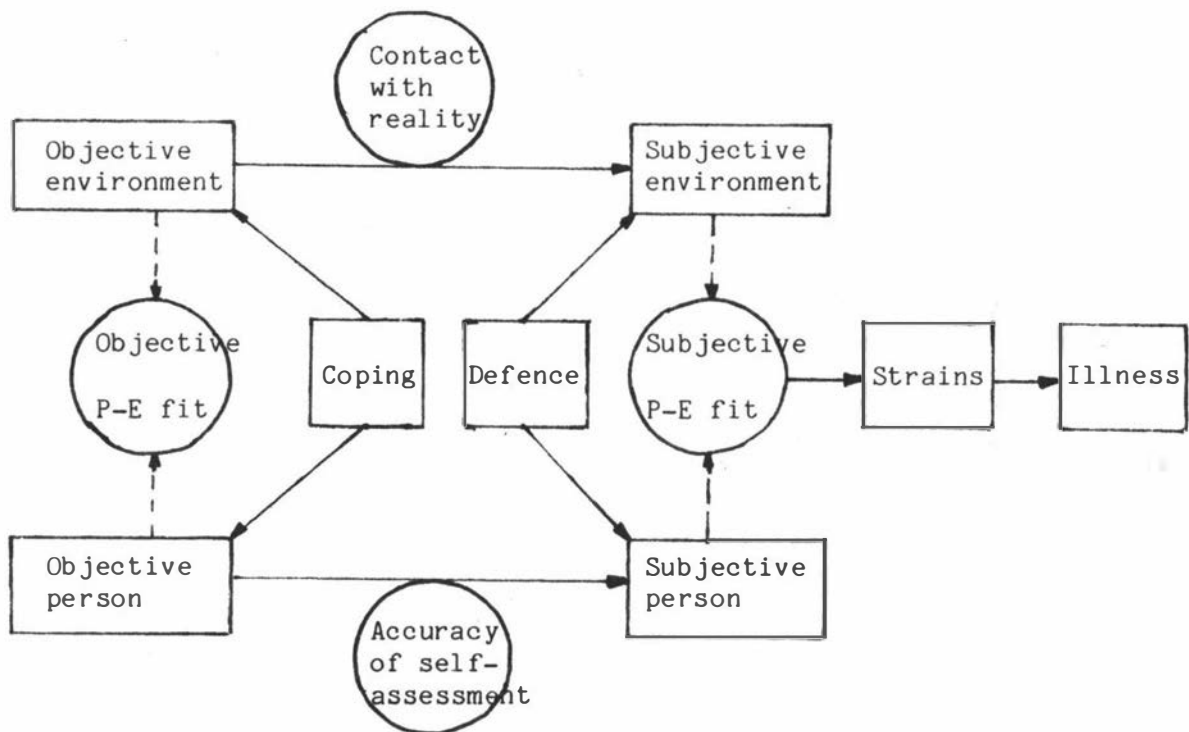


Figure 1.2 The person-environment fit model (from Harrison, 1978, p.176).

the objective and subjective person. The objective environment is the physical and social world as it exists independently of the person's perception of it. The subjective environment is the person's perception of this objective world, their psychological construction. The objective person is the person "as they really are", while the subjective person is the individual's perception of themselves (i.e. their self-concept).

From these concepts four additional ones are defined. These are: the person's contact with reality, which is the discrepancy between the objective environment and the person's perception of it; the accuracy of self-assessment, which is the discrepancy between the objective person and their subjective perception of themselves; the objective person-environment fit (P-E fit), which is the fit between the objective person and the objective environment, independent of

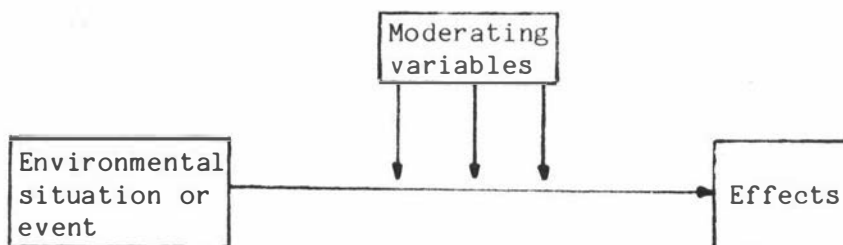


Figure 1.3 A simplified three-factor model.

their perceptions; and the subjective P-E fit, the fit between the subjective person and their subjective environment. The subjective P-E fit leads to the stress response. The relationship between these eight concepts is presented in Figure 1.2.

The main distinction between these interactive models and the earlier two-factor models is the consideration of an extra factor, that of the person's appraisal of the situation (Jick and Payne, 1980). This leads to a three-factor model, as outlined in simplified form in Figure 1.3. The present research has adopted the terminology of referring to the third "person" factor as relating to those variables which moderate stress. This term covers a wide range of personal and social resources available to an individual to enable them to in some way alter and/or reduce the response pattern ("effects" factor) that is produced by the presence of environmental and within-person demands (the "stressor" factor).

1.2 Problems with the stress model

This three-factor model has recently been criticised by Payne, Jick and Burke (1982), who concluded that studies based on this general model were inadequate. This inadequacy occurred because of the

low levels of correlations obtained between the stressor factor and the effects factor. They state:

The better designed correlational studies ... indicate rather low correlations between self-reports of environmental stressors and self-reports of psychological states such as anxiety, depression the life-events literature ... has elicited correlations which are too small (around 0.3) to be of sufficient accuracy to indicate which individuals in a particular group will become ill/strained. This literature is better for predicting which groups are more likely to be suffering some psychological impairment. (Payne, Jick and Burke, 1982, p.133)

In support of this criticism, Kagan and Levi (1974) have observed that none of the literature to date has given clear examples of causal links between the stressor factor and the effects factor. Kasl (1978) is another critic of this approach, and has argued for the more extensive use of longitudinal studies.

Such criticisms are to some extent valid, as causal analysis of the situation under study may be better served by utilising experimental and quasi-experimental designs, preferably within a longitudinal setting. Unfortunately, in applied research, constraints of time and finance, and problems with the continual accessibility of subjects, make such designs difficult, if not impossible, to implement. Therefore such criticisms as are outlined above cannot necessarily be acted upon. However, an argument can be made in support of the point that the capability of the three-factor model to

assist in the understanding of occupational stress has not been fully investigated.

The criticisms made by Payne, Jick and Burke (1982) may also be considered as criticisms of the measuring instruments used to assess both the stressors and their effects. As will be seen later in this paper, more careful selection of particular measuring instruments overcomes many of the problems resulting in low levels of explained variance.

In fact, the simplest way to make more efficient use of the three-factor model is to use more measures. Indeed, this point has been made by Payne, Jick and Burke (1982, p.133) themselves, who state:

Since there are very few studies in the literature where more than 20 percent of the variance in the dependent stress measure is accounted for, we have to ask the question: what happens to the other 80 percent? It is unlikely that it is all measurement error. It is more likely that we have not measured all the relevant variables.

The approach being suggested in this paper is to carefully select a large range of measures, more than is usual in research of this nature. A major argument to be developed in this paper, and supported by empirical evidence, is that such an approach, when applied, is very effective in increasing the level of explained variance within the dependent measure.

Another criticism of the type of approach adopted in the majority of stress investigations is the use of subjective measures. Kasl (1978) made the point that some formulations of the dependent and

independent variables are so close operationally that they could appropriately be described as two measures of the same concept. As an example, Lyons (1971) reported a high correlation between a measure of role clarity and the Job Tension Index (Kahn, Wolfe, Quinn, Snoek and Rosenthal, 1964). Unfortunately, a large component of the Job Tension Index is related to the lack of role clarity, so correlations between the two scales are not of much theoretical or practical value. In addition, there seems to be a prevailing belief that physiological measures (e.g. heart rate and blood pressure), electrophysiological measures (e.g. G.S.R., E.C.G.) and biochemical analysis (e.g. blood, urine, and saliva analysis) are more accurate than subjective responses in measuring the effects of environmental stress. The results from several studies suggested, however, that physiological, electrophysiological and biochemical measures can also be misleading as the intercorrelations between them are often unreliable (Cox, 1978; House, McMichael, Wells, Kaplan and Landerman, 1979).

In contrast to these critical studies, a number of others have indicated clearly that subjective measures can be used successfully to isolate various aspects of occupational stress (Fletcher and Payne, 1980b; Goerres, 1977; House et al., 1979). For example, a research study carried out by the German Air Force Institute of Aviation Medicine (Goerres, 1977) showed that the assessment of stress in pilots could be effectively and validly carried out by subjective questionnaire. This success may be due to the fact that reaction to environmental stress is related to the manner in which an individual interprets the stress situation.

The present research utilises a large number of carefully selected predictor variables, covering both sources and moderators of stress, and investigates their effects on a number of criterion variables. The criterion variables were concerned with the effects on the family, the effects on marital relationships, and the effects on psychological health. In line with the earlier argument concerning the use of an increased number of relevant measures, a large number of predictor variables assessing a range of areas were utilised. All of the measures used in this research were subjective.

1.3 Occupational stress and the family

In the last few years, a number of articles have presented research which has looked specifically at the effects of occupational stress on the family (Billings and Moos, 1982; Burke, Weir and DuWors, 1980a; Jackson and Maslach, 1982). However, prior to this, a large amount of anecdotal material was available, mainly based on studies of police officers (See Section 3.1.1). This material indicated problems of marital and family disruption all directly attributable to the occupation.

In addition, considerable work has been undertaken into the effects of the specific stressor of job transfer, with such adverse effects as poor mental and physical health of the spouse and children, and poor social development of the children (Brett, 1980). Shiftwork and irregular hours are other specific stressors which have been found to have adverse effects on the family (Voges, Long, Roache and Shouksmith, 1982). These aspects of the effects of an occupation on the family are discussed in more detail in Section 3.1.

1.4 Comparisons between occupations

The stressfulness of particular occupations has been debated for some time, with findings that certain occupations, such as air-traffic controllers, physicians, assembly-line workers, and policemen, are supposed to work in particularly stressful circumstances. A study conducted by Smith, Colligan, Horning and Hurrell (1978, in McLean, 1979), attempted to answer the question of the relative stressfulness of various occupations by examining the specific occupations of patients admitted to mental hospitals. The results indicated that general and construction labourers, secretaries, inspectors, clinical laboratory technicians, office managers, managers/administrators, foreman, waitresses/waiters, mine operatives, farm workers, and painters all showed a significantly higher than expected level of incidence of diseases which were considered stress-related. They also found that occupational status level had no relationship to the incidence of disease, as both white and blue-collar employees showed high and low incidences of stress-related disease. In contrast, Fletcher and Payne (1980a) presented a comparison of standardized mortality ratios broken down by occupationally defined social class. Their results showed that blue-collar workers tended to die younger than white-collar workers. This trend was similar for all causes of death, and not just the usual stress-related ones such as heart disease and ulcers. The same trend was evident in figures considering the average number of days lost per year due to sickness absence. This pattern was confirmed in a study by Finlay-Jones and Burvill (1977), who compared the prevalence of minor psychiatric morbidity across occupational groups. Using the 60-item version of the GHQ (Goldberg, 1972), they found more problems among blue-collar workers

than among white-collar workers.

Given that such differences have been shown in a number of studies, the question remains as to what factors account for these observed differences? Blue-collar workers are exposed to more physical/chemical stressors in their work environment than white-collar workers, and expend more physical energy (Poulton, 1978). It would also appear that the lower the social class, the more likely the worker is to engage in behaviours damaging to health. For example, Caplan, Cobb, French, Harrison and Pinneau (1975) found that over sixty percent of all assembly workers smoked, compared to just over thirty-five percent of professional workers.

The main work stressors which appear to differentiate between these broad occupational categories relate to the boring and monotonous nature of machine-minding, highly routine jobs, and those requiring little skill and initiative. Specifically, it may be that lower status workers suffer psychological strain because their job does not allow them the opportunity to satisfy any higher order needs for autonomy and self-actualization (Herzberg, 1966; Maslow, 1954). Demanding but not necessarily stressful jobs tend to be those requiring higher-order intellectual functions and manual skills, creativity, problem solving and sustained effort. These factors are also associated with increased personal satisfaction and may transform demanding jobs into stimulating and satisfying ones.

The specific hypotheses to be tested in this research are outlined in Section 4. However, the major aims of the research could be summarized as follows: (a) to test an implementation of the three factor model and determine its efficiency, (b) to investigate the relationship between various measures of occupational and life stress,

and variables assessing their impact on the family and marital relationships, and (c) to investigate the effects of a number of moderating variables.

The research outlined in the following sections was wide-ranging and exploratory to some extent, in that it was designed to consider in a preliminary, but rigorous, manner a large number of possible interactions between variables. All of the areas considered in this research have been outlined in this section, and a number of specific areas will be discussed in more detail in the following two sections. The reported research will confirm the often made observation that stress research is a study of the complex interaction between many variables. It is hoped that this complex interaction will become a little clearer as a result of the present work.

SECTION 2

LITERATURE REVIEW I: CONCEPTS AND SOURCES OF STRESS

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The field of occupational stress research and its effects on the job incumbent has received substantial attention in recent years. The term "stress" has been used widely in the literature, leading a number of authors to comment on the imprecision of use of the term (Appley and Trumbull, 1967; Cofer and Appley, 1964; Kahn, 1970; McGrath, 1970b, 1976; Sells, 1970; Weitz, 1970). In the majority of published articles relating to stress, the emphasis has been on what McGrath (1970b, 1976) terms "social-psychological" stress. In this type of approach, physiological evidence is not usually obtained. Rather, overall physical health is considered as evidence of specific social-psychological states. Previous research has shown that the level of subjectively experienced social-psychological stress is strongly associated with the respondent's physical health (Cooper and Marshall, 1976; Cooper and Payne, 1978; French and Caplan, 1972; Kornhauser, 1956; Russek and Zohman, 1958). This section considers in general terms both concepts and sources of stress, with Section 2.1 expanding the earlier discussion of Section 1.1, looking in more detail at the stress concept itself. Section 2.2 follows with a review of sources of stress within occupations, looking specifically at the model proposed by McGrath (1976).

2.1 Concepts of stress

In recent comprehensive reviews of the literature, three main usages of the concept of stress have been identified and compared: stimulus-based, response-based, and interactional definitions (Cox, 1978; Lazarus and Launier, 1978; Mason, 1975a, 1975b; McGrath, 1970a). Each of these categories encompasses quite different approaches (see Section 1.1).

Stimulus-based approaches may be subdivided into those that explicitly acknowledge the importance of an individual appraisal of events, and those that ignore such mediating cognitive processes. In Spielberger's State-Trait Anxiety Theory (Spielberger, 1972), for example, he assumes that stressful conditions must be appraised as threatening in order to evoke an anxiety reaction. Following this conception of stress, objectively nonstressful situations may be appraised as threatening if a person perceives them to be harmful. On the other hand, objectively stressful situations may be regarded as non-threatening by certain persons. The actual appraisal of a situation as physically or psychologically dangerous is determined by individual differences in personality, aptitudes, and personal experiences with similar situations in the past. For Spielberger, there is a conceptual distinction between stress as an objective condition and threat as the consequence of the appraisal process. Other writers do not make such a distinction, and prefer to include the subjective appraisal of a situation in the definition of stress. For example, Chan (1977) views stress as stimuli or situations that severely tap coping resources, and argues that an event becomes stressful only when it is perceived as such. It can be argued however, that such conceptualisations are now no longer simple

stimulus-based models, as they invoke the third "person" factor of cognitive appraisal.

A rather influential group of writers proposed stimulus-based models that fail to allow for differences in individual appraisal of events. An example from the life stress literature is Holmes and Rahe's (1967) original work on stressful life events, which ignores mediating cognitive processes. The basic assumption behind their life stress approach is that the amount of adjustment required to cope with a particular life event is the same for all people who experience the event. Furthermore, their approach ignores the possible desirability of the event. Death of a loved one may be for certain people in certain circumstances, a desirable event if, for example, it releases that person from the pain of a long illness. In addition, the work of Holmes and Rahe (1967) is based on the vague concept of readjustment required to cope with an event, as opposed to the stressfulness of the event. Serious doubts have been raised about equating life changes or readjustment with stress (Hurst, Jenkins and Rose, 1978; Lazarus and Cohen, 1978; Lazarus and Launier, 1978; Lundberg and Theorell, 1976; Paykel, 1976; Redfield and Stone, 1979; Vossel and Froehlich, 1979). Assigning pre-determined levels of adjustment for various life events ignores differences in the way people are influenced by various events. The salient role played by the individual's own appraisal of life changes has convincingly been demonstrated by Lundberg, Theorell and Lind (1975). They showed that the difference in the psychological amount of life change between a group of myocardial infarction patients and a control group increased with the weight accorded to the individual's own perception of his life changes.

The most popular response-based definition of stress has been developed by Selye. He defined stress as the state manifested by a specific syndrome, which consisted of all the nonspecifically induced changes within a biological system (Selye, 1976). The validity of this concept of nonspecificity has been questioned by Mason (1971, 1975a, 1975b), who argues that the nonspecific physiological responses in Selye's General Adaptation Syndrome may largely be a reflection of the general nature of emotional arousal. He contends that the conventional physical stressors Selye used (e.g. heat, cold, exercise, fasting) very often elicit psychological reactions related to pain, discomfort, or emotion. Such a specificity view of stress once again emphasises the importance of cognitive processes in determining the evocation of different physiological reactions in different situations. In line with Mason's approach is Lazarus's notion that:

Selye has paid attention to the bodily defence processes after they have been aroused neuro-humorally, and not to the physiological and psychological signalling system that "recognizes" the noxious effects or possibilities and distinguishes them from benign events. (Lazarus, 1974, p.324)

In reply to Mason, Selye points out that in Mason's experimental work, the specific actions of the stressors might have inhibited their nonspecific effects (Selye, 1975; Tache and Selye, 1978). Though Selye in many respects still disagrees with Mason's conception of stress, he tends to consider problems of individual perception and interpretation of stimuli in his more recent writings (Tache and

Selye, 1978).

In the third general approach, stress is conceived of as the interaction between individual and situation. For example, Cox (1978) concludes that stress arises from the existence of a particular relationship between the person and the environment (See Section 1.1). Interactional approaches to stress have been proposed to overcome the inadequacies of models that define stress solely in terms of stimulus or response parameters (Cox, 1978; Mason, 1975b; McGrath, 1970a, 1976).

Those stimulus-related and response-related models of stress that refer to some appraising, perceiving, or interpreting processes are also examples of an interactional perspective. According to Spielberger, who adheres to a situation-based definition of stress, persons high in trait anxiety (A-Trait) have a tendency to perceive situations that involve failure or threats to self-esteem as more threatening than persons who are low in A-Trait, and thus they are expected to respond to such situations with state anxiety (A-State) elevations of greater intensity. The interactional nature of this approach has been emphasised by Shedletsky and Endler (1974). Also, response models of stress (as, for example, the threshold model of Cofer and Appley, 1964) emphasise the importance of threat perception and situation-organism interaction in order to understand why stress arises in some exposed individuals and not in others (Appley and Trumbull, 1967; Sells, 1970).

Interactional definitions of stress typically emphasise that 'stress occurs when there is a substantial imbalance between environmental demand and the response capability of the focal organism' (McGrath, 1970a, p.17). In this view stress exists as the

imbalance between perceived demand and perceived response capability (Cox, 1978). Another example of such an imbalance conception may be found in Sarason's theoretical framework for stress research: 'Stress follows a call for action when one's capabilities are perceived as falling short of the needed personal resources' (Sarason, 1979, p.74). In Sarason's model a call for action is issued when either the environment or personal resources identify the need to do something. For Lazarus, psychological stress also refers to the demands that tax or exceed available resources as appraised by the person involved (Lazarus and Launier, 1978).

2.2 Sources of occupational stress

Work-related stresses arise from a variety of sources, and need a method of classification to assist in their discussion and assessment. Such a method has been provided by McGrath (1976), who considered behaviour in organizations as the intersection between three independent systems, the physical environment, the social environment, and the person. The intersection of two of these systems in turn results in three further areas; the task as intersection between the physical environment and the person, the role as intersection between the social environment and the person, and the behaviour setting as intersection between the physical and social environments (see Figure 2.1).

These three primary and three secondary systems result in sources of stress. The value of such a distinction arises from the possibility that the:

'effects of the stress differ depending on the source. It is also likely that effective behaviours for coping with

stress and especially organizational "design" procedures for preventing its occurrence may differ for stresses arising from these six different sources' (McGrath, 1976, p.1369-1370).

In this section a number of studies will be reviewed in terms of these six sources of stress.

While McGrath (1976) is elegant and appears theoretically sound, some aspects do not appear to be accurate in practical research (Voges et al., 1982). The model does not fully cover the complexity of the stress situation under investigation. Nevertheless, as a method of categorizing sources of stress, it remains useful.

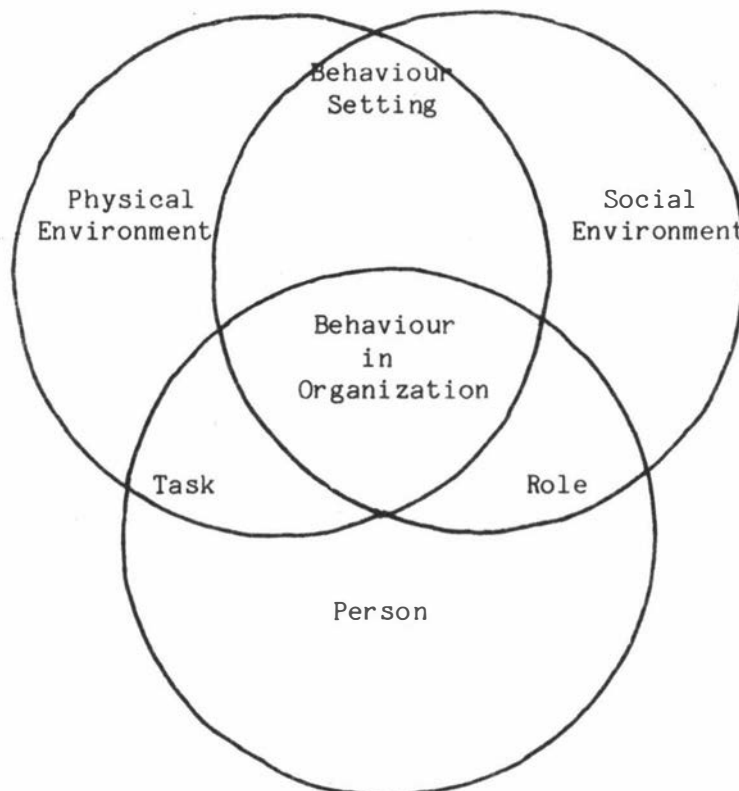


Figure 2.1 Six sources of work-related stress in organizations (from McGrath, 1976, p.1368).

2.2.1 Physical environment stressors

The effects of the physical environment on the job incumbent has been extensively studied in the ergonomic literature. Some potential sources of stress from the physical environment include insufficient light, glare, light flicker, noise, vibration, temperature, wind, pollution, and radiation (Poulton, 1978). From the point of view of work-related stress, it is the perceived stressfulness of these physical stimuli that are of most importance. Previous experience and habituation may alter a person's perception of stressfulness in either direction. Kornhauser (1965) found that poor mental health was directly related to unpleasant working conditions.

An aspect related to the physical environment is that of equipment, with both American and Australian studies of police officers (Davidson, 1979; Eisenberg, 1975; Margolis, 1973) reporting stresses arising from poor equipment and continual equipment failure. In addition, numerous studies have found that shift work is a common stressor, affecting neurophysiological rhythms within man such as blood temperature, metabolic rate, blood sugar levels, mental efficiency, and work motivation, ultimately resulting in stress-related disease (Cobb and Rose, 1973; Colquhoun, 1970; Hurrell and Kroes, 1975; Selye, 1976). Cobb and Rose (1973), for example, isolated shift work as a major stressor resulting in four times the prevalence of hypertension, mild diabetes and peptic ulcers among air traffic controllers as opposed to a control group.

2.2.2 Social environment stressors

A number of authors (Argyris, 1964; Cooper, 1973) have suggested that good relationships between members of a work group are a central factor in individual and organizational health. Nevertheless, very little research has been done to either support or disprove the hypothesis. Caplan et al. (1975) found that high social support from peers relieved job strain, while Kroes, Margolis and Hurrell (1974) suggested that a police officer is better able to cope with the stress he faces if he feels that his superiors show understanding and support. Both Kahn et al. (1964) and French and Caplan (1972) concluded that mistrust of workmates was positively related to role ambiguity, which lead to both inadequate communication and psychological strain. The influence of the social environment can also be considered in terms of the positive effects of social support mechanisms. Literature relating to this concept is outlined in Section 3.2.2.

2.2.3 Person stressors

Studies investigating the "person" as a source of stress have tried to isolate individual personality types more predisposed to stress (Jenkins, 1971a, 1971b; Schalling, 1975; Welford, 1974). Welford (1974) maintains that individual differences in the degree of anxiety reactions as a result of stress are related to personal dimensions, due to variations between extremes of stability and instability, as outlined in Eysenck's (1958) concept of neuroticism. By linking personality scores and autonomic indicators of arousal, Welford (1974) concluded that introverts represent greater chronic arousal than do extroverts. Therefore, introverts tend to perform

better under monotonous conditions and tend to be less affected by loss of sleep and by narcotic drugs than extroverts. Extroverts tend to seek stimulation in order to sustain optimal arousal and also tend to remain stable under pressure and perform well under such conditions. These assumptions have recently been verified by Schalling's (1975) anxiety studies. Kahn et al. (1964) investigated the personality variables in managers as related to role stress and found that extroverts were more highly reality-oriented and adaptable than introverts. Other personality types linked with stress outcomes are neuroticism (Eysenck and Eysenck, 1964) and locus of control (Joe, 1971; Kobasa, 1979) (see also Section 3.2).

2.2.4 Task stressors

Task-based stress can result from both overload and underload. The effects of overload were documented as early as 1958, when Russek and Zohman (1958) found that twenty-five percent of young coronary patients had been working at two jobs, while an additional 45% had worked at jobs requiring more than 60 hours per week.

Breslow and Buell (1960) found that employees under 45 years of age who worked more than 48 hours a week were exposed to twice the risk of death from coronary heart disease as compared with employees who worked less than 40 hours per week. Task overload is also potentially present in intensive-care unit nurses, with incessant repetitive routine, interrupted by "crisis" situations (Marshall, 1980). The results of these and other studies (Margolis, Kroes and Quinn, 1974; Porter and Lawler, 1965; Quinn, Seashore and Mangione, 1971) are relatively consistent and indicate that this is a source of work-related stress with adverse effects on both health and job

satisfaction.

Task underload associated with repetitive, routine and boring and under-stimulating work environments has also been associated with ill health (Cooper and Marshall, 1976; 1978a; Cox, 1980). Problems with underload have been reported in studies of blue-collar workers (Walker and Guest, 1952) and police (Eisenberg, 1975; Rubinstein, 1973). Much depends on the attitude of the job incumbent, however, with Harrison (1978) suggesting that police see routine activities and task underload (while being prepared for emergency situations), as an integral part of their job, and that such an attitude leads to less negative effects from underload.

2.2.5 Role stressors

A major area of research has developed based on the concepts of role ambiguity and role conflict (Kahn et al., 1964). Role ambiguity results from inadequate information about the work role and the objectives associated with that role. French and Caplan (1972) found that role ambiguity was significantly related to low job satisfaction, and lowered mental and physical well-being. Margolis, Kroes and Quinn (1974) also found significant relationships between indicators of mental and physical ill health and role ambiguity.

Role conflict results from conflicting job demands, either from within the individual, or from the expectations of external groups. For example, police officers have high levels of conflict resulting from negative community attitudes (Kroes, 1976). Stress resulting from role conflict leads to both isolation and to low morale, possibly resulting in overly aggressive police work (Davidson and Veno, 1980), especially when the police regard the public as their enemy (Clark,

1965). Teachers also experience contradictory roles, such as supervisory/executive versus supportive/counselling (Edgerton, 1977), which can lead to conflict. Douglas (1977) has examined the negative effect of role conflict on teacher absenteeism. Such effects support the suggestion of Kahn and French (1970) that the most frequent behavioural response to role conflict is withdrawal or avoidance of those who are seen as creating the conflict.

2.2.6 Behaviour setting stressors

Stress associated with the behaviour setting is a poorly defined aspect of McGrath's model. McGrath (1976) specifies three parameters. These are difficulty, ambiguity, and load. A difficult behaviour setting places performance demands on the job incumbent which exceed his or her performance resources. An ambiguous setting may not contain enough "cues" to enable the person to correctly comprehend the situation, while load may result from "undermanning" (Barker, 1968; Barker and Wright, 1955). No studies have looked specifically at this concept as a source of work stress, although studies investigating task overload (Section 2.2.4) may be relevant to the "undermanning" concept.

The above review has outlined six possible sources of occupational stress, as classified by McGrath (1976). These correspond to the "stressor" factor of the three-factor model outlined in Section 1.1. The remaining two factors, the "effects" factor and the "person" factor, are outlined in detail in the following section.

SECTION 3

LITERATURE REVIEW II: EFFECTS AND MODERATORS OF STRESS

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3.1 Effects of occupational stress on the family

In addition to the problems of methodology and the development of models outlined in Section 1, considerable attention in recent literature has been focussed on the direction that stress research needs to take (Payne, Jick and Burke, 1982). As one general direction, a number of recent reviews and articles have highlighted the effects of stress on the family (Billings and Moos, 1982; Burke and Bradshaw, 1982; Burke, Weir and DuWors, 1980a, 1980b; Jackson and Maslach, 1982). These reviews have emphasised the importance of the effects of occupational stress factors on the job incumbent as well as the accompanying consequences of this stress on the family.

While the effects of work-related stress on the psychological and physiological well-being of the job incumbent have been well researched and reviewed (Beehr and Newman, 1978; Cherry, 1978; Cooper and Marshall, 1976; French and Caplan, 1972; Grout, 1980; House, 1974; Kyriacou and Sutcliffe, 1978), little attention has been given to the effect these stresses may have on the incumbent's family. Empirical studies of this problem are scarce and their findings largely inconclusive. An attempt at integrating the problems of work and the family was made by Renshaw (1975), in her study of the effects of transfer, travel, and job changes on managers and their families. In this study, the family and the organization were described as interacting systems, and her discussion indicated the complexity of the interdependence between both of these systems. For example, the

husband lives in both systems but tends to blame one system for problems that occur in the other. Possible examples are blaming work for marital problems, or blaming poor work performance on problems at home. Renshaw believed that:

Stresses in one system are not caused by events in the other system, but are a function of the interactive nature of the relationship. The common tendency to blame one system for events in the other system neither correlates with reality nor is useful in coping with the stresses. (Renshaw, 1975, p.164)

Despite the recent increase in the number of studies dealing with the effects of occupational stress on the family, there is still a continuing need for research into the interaction between the work environment and the family.

A theoretical formulation of four of the dimensions of an occupation which have been shown to directly effect marital and parental functioning have been reported (Aldous, 1969; Rapoport and Rapoport, 1965). These are the relative involvement in the occupation, the synchronization of occupational and family responsibilities, the overlap of family and occupational settings, and the similarities of behaviour patternings between the occupation and the family.

The relative involvement in the job in comparison with the family (e.g. an intrinsically interesting occupation that engages the incumbent's attention at the expense of the family, possibly leading to an accompanying withdrawal from family life), may result in the spouse having to assume virtual sole responsibility for the family.

In addition, in certain occupational groups, such as managers, professionals, and government employees, the family may be co-opted into the husband's occupation and be used as a means of career achievement (Whyte, 1951). Furthermore, an individual and spouse may develop differently because of one person's job interest, thus leading to possible incompatibility between them. This incompatibility gives rise to further marital discord as it represents a potential threat to the stability of a marriage (Foote, 1963).

The second dimension, the synchronization of occupational and familial responsibilities, involved such aspects as the length of the working week, the periods of separation from the spouse (both number and duration), and the stage of the family life cycle (Duvall, 1967; Hill and Rodgers, 1964; Rodgers, 1964). For example, Lang (1932, in Aldous, 1969) reported that wives of travelling salesmen and musicians were the most unhappy in their marriages, compared with a number of other occupations. It was suggested that this unhappiness was due to a limitation in the number of opportunities that the job incumbents have to become involved with family decisions and tasks. In support of this suggestion, Mott, Mann, McLoughlin and Warwick (1965) showed that afternoon and night shift workers had particular difficulties with their parental and marital roles as a result of working in different time blocks to their wives and families. These problems also occur on a longer time scale, with the peak years for child-bearing and child-rearing responsibilities tending to fall in the same age range as increased occupational demands (Marshall and Cooper, 1976).

The third occupational dimension effecting the family discussed by Aldous (1969) referred to the degree of overlap between the family and the occupational settings. This degree of overlap was considerably higher in pre-industrial society, where the home was often the workplace and family members also members of the workforce. This situation, where the place of occupation is located in the home, is rare in modern society. Possible exceptions include family farms, small grocery stores, home "cottage industries", and some professional offices. The effects of a high degree of overlap may be positive, such as in the case where a couple may be able to work together in a business or small industry. However, negative effects could also result from the difficulty of escaping the work environment, as is often the case in small corner stores.

The fourth dimension discussed by Aldous (1969) was that of the similarity of behaviour patterning between the occupation and the family (Rapoport and Rapoport, 1965). For example, the husband who has a high level of authority and a high decision-making role at work may simply transfer this work-role pattern to the family, whether or not it is appropriate. A theoretical understanding of this dimension is not well developed because of the problem of the complex moderating variables involved. For example, problems at work may lead either to an increase in domesticity or to marital discord. These differences may be due to variation in response patterns between different individuals (McGrath, 1982), or to variations within a particular individual. These differences in response patterns, leading one recipient of stress to respond completely differently to another, could be due to a large number of possible factors. As will be shown later, such factors may be either within the individual (Such as the

personality construct locus of control), or within the social environment, related to the presence and effectiveness of social support mechanisms.

As well as these four dimensions outlined, a number of other theoretical formulations could be considered in terms of the interaction between work and family life. For example, the present stage of the family life cycle may be a complicating factor in the relationship between work-related stress and its effects on the family. Rollins (Rollins and Cannon, 1974; Rollins and Feldman, 1970) has noted that marital satisfaction follows a U-shaped curve, declining over the early years of marriage, followed by an increase over the later years. Rollins and Feldman (1970) also found substantial differences between the husband's and the wife's level of satisfaction over the different stages of the marriage. The wives were satisfied in the early stages, with a gradual decline until the children became teenagers. This was followed by a substantial increase in the final years. The authors also noted that the wife's marital satisfaction seemed to be more related to child bearing and child rearing, while the husband's was more related to occupational experiences. This suggested that the actual effect of the occupation on the family could depend to a large extent on which stage of this cycle the family was experiencing.

A further method of considering the relationship between work and family is provided in a review by Burke and Bradshaw (1981) of the effects of occupational and life stresses on the family. They argue that the family can be considered in three different ways simultaneously. It can be considered as a source of stress, either within the family or at work, as a recipient of work stress, or as a

support system capable of moderating the stressful effects of the occupation. An analysis by Kanter (1977) is presented in Burke and Bradshaw (1981), and outlined three possible sources of problems at work as a result of the family. These sources were membership in certain cultural groups, membership of families of the organisational "aristocracy", and the effects of a family business, such as those discussed earlier. Kanter's assessment does not evaluate a number of other ways in which the family may cause stress at work. Some of these include a couple's marital relationship, which may effect the husband's attitude to his work (Pahl and Pahl, 1971), and the presence of young children, which may effect the job incumbent's ability or desire to travel (Brett, 1980). In addition, the success of dual-career couples may depend on the type of marriage the couple have developed (Hall and Hall, 1980; Jones and Jones, 1980). The other ways of viewing the relationship between the family and work are discussed below with the family as a recipient of stress being discussed in the following sections, and the moderating effect of the family as a support system being discussed in Section 3.2.2.

3.1.1 Effects on the family in a number of occupations

The most comprehensively studied occupation has been that of the police officer (Banton, 1964; Burgin, 1978; Cain, 1973; Clark, 1965; Danto, 1978; Davidson, 1979; Davidson and Veno, 1980; Dooley, 1974; Hageman, 1977, 1978; Hurrell, 1977; Jackson and Maslach, 1982; James and Nelson, 1975; Kroes, 1976; Kroes, Margolis and Hurrell, 1974; Megerson, 1973, 1976; Niederhoffer and Niederhoffer, 1978; Nordlicht, 1979; Paulson, 1974; Preiss and Ehrlich, 1966; Rafky, 1974; Reiser, 1974, 1978; Rios, Parisher and

Reilley, 1978; Skolnick, 1973; Sterling, 1968; Stratton, 1975, 1976, 1978a, 1978b; Sultan, 1979).

An important finding in many of these studies has been the effects of occupational stress on the level of marital disruption within the police force. One of the most visible signs which appears to reflect this marital disruption among police officers is the divorce rate, which appears to be considerably higher than the national average, both within the U.S. (Hurrell, 1977; Kelling and Pate, 1975; Paulson, 1974; Stratton, 1976), and within Australia (Davidson, 1979). A recent study however, has disputed this assertion (Niederhoffer and Niederhoffer, 1978). Other important effects of occupational stress on the marriage are a lower level of marital satisfaction (Davidson, 1979), and a higher risk of marital disruption (Paulson, 1974; Rafky, 1974; Reiser, 1978; Stratton, 1976) during the earlier stages of marriage (i.e. the first five years) when compared with other marriages. Levels of communication between the officer and his wife also suffer, with both Stratton (1975) and Nordlicht (1979) pointing out the poor quality of interaction between the police officer and his wife. The type of interaction is often of short duration and sporadic. This marital disruption has also been associated with police suicide. Danto (1978) stated that 50% of the police officers who had committed suicide, and whose histories he surveyed, had experienced marital problems.

This marital disruption in turn appears to lead to poor performance in the occupation, with Paulson (1974) and Stratton (1976) reporting correlations between poor marital relationships and a poor level of job performance. Sultan (1979) found that both job performance and home life stability were important predictor variables

able to discriminate between a "stress-disabled" group and a "currently active" (non-disabled) group. Another effect related to marital disruption is the spouse's reported level of dissatisfaction with the police officer's choice of career. Rafky's (1974) study of wives of police officers showed that 20 to 25% were dissatisfied with their husband's choice of career. This percentage increased in those families where the husband entered his occupation after marriage.

Other specific adverse effects of the occupation on the family, reported in various studies of the police include: a retardation of non-police friendships (Cain, 1973; Davidson, 1979; Hageman, 1978; Hurrell, 1977; Kroes et al., 1974), a lessening of the ability to plan social events due to changing working hours (Cain, 1973; Hageman, 1978; James and Nelson, 1975; Kroes et al., 1974; Niederhoffer and Niederhoffer, 1978; Nordlicht, 1979), the pressures of the job taken home (Cain, 1973; Jackson and Maslach, 1982; Kroes et al., 1974), work-related arguments in the home (Rafky, 1974), an inability to give attention and love to their children (Nordlicht, 1979), the effects of a negative public image on the family, including children (Banton, 1964; Clark, 1965; Kroes et al., 1974; Niederhoffer and Niederhoffer, 1978; Nordlicht, 1979; Skolnick, 1973), and the wives' concern over their husband's safety (Davidson, 1979; Hurrell, 1977; James and Nelson, 1975; Kroes et al., 1974).

A number of these adverse effects can be considered in terms of the dimensions outlined by Aldous (1969). The synchronization dimension is reflected in the effects on social events, including non-police friendships, while the similarity of behaviour patterning is reflected in an inability to give attention to the children and possibly, the pressures of the job taken home. The remaining two

adverse effects, work-related arguments and the wives' concern over safety, do not fit easily into the dimensions outlined by Aldous (1969). This would suggest that the framework that Aldous has provided is inadequate in practice, in some occupations at least.

Another occupational group that has been extensively studied from the point of view of adverse effects on the family is that of military personnel (Hunter and Nice, 1978; McCubbin, Dahl and Hunter, 1976). It would appear for selected military personnel, as well as with police officers as discussed earlier, that irregular working hours lead to higher levels of marital disruption. For example, Corwin (1980) found higher levels of marital and life style disruption among missile launch officers working irregular hours than among the officers working more regular hours. The main stressor appeared to be the irregular pattern of the shifts worked. An additional stressor was the carryover from work into the initial interactions with the family, of disrupted sleep patterns, boredom, and the prolonged end of shift travel. Significant adverse effects were found in the wives' personal adjustment (as assessed by a depression scale), marital adjustment, and the negative attitudes of both partners towards the job.

Another common situation with military personnel is the temporary separation of the husband from the family. Beckman, Marsella and Finney (1979) evaluated levels of depression among the wives of nuclear submarine personnel, when the husband was present, and when he was absent on a tour of duty. The level of depression was significantly higher when the husband was absent. This level became particularly acute during periods of military conflict (McCubbin, Hunter and Dahl, 1976; McCubbin and Dahl, 1976).

Besides police officers and military personnel, other occupations have been studied, including managers (Cooper and Marshall, 1978b; Marshall and Cooper, 1976, 1979), doctors (Elliot, 1978), accountants (Burke and Weir, 1977a, 1977b), prison administrators (Burke, Weir and DuWors, 1980b), fisherman (Lynn and Sawrey, 1959), and ships' pilots (Shipley and Cook, 1979, 1980). Specific adverse effects on the family that have been found in these, and other studies include marital dissatisfaction (Burke and Weir, 1977a, 1980), and child abuse and deprivation (Elliot, 1978; Justice and Duncan, 1977; Lynn and Sawrey, 1959). All of these studies have reported some level of negative interference in the family life as a result of stresses and problems at work.

3.1.2 Effects on the family through a number of specific stressors

Two major occupational stressors have now received considerable attention in terms of their adverse effects on the family. These two stressors, examined below, are job transfer and shiftwork.

A specific occupational stressor that has direct effects on the family is that of job transfer. Although most published articles have tended to be anecdotal, sufficient empirically based studies do give broad indications of these effects. Brett's (1980) review and model of the effects of job transfer, presented a range of studies that indicated negative effects on the spouse and children. These adverse effects included poor mental and physical health of both the spouse and children, and poor social relationships developed by the children. The anecdotal material (Culbert and Renshaw, 1972; Maccoby, 1976; Renshaw, 1975; Seidenberg, 1973) has also supported these negative effects, while the research of Birch and Macmillan (1970) gives some

indication of the extent of the transfers. Up until 1970 the average number of regional moves per middle-level manager more than doubled, from 0.7 in 1940 to 1.6 in 1970. Also in 1970, 15% of the managers had moved four or more times in their career, with university qualified managers moving more frequently than average.

An early paper by Fried (1964) suggests that moving requires internal adjustment of the wife's role behaviour, as the new social situation requires modified or new behaviour. If the wife is unwilling to give up this former role behaviour, she is unlikely to find role fulfilment in the new situation and may experience depression. In a further study, Weisman and Paykel (1972) concluded that there is a relationship between depression and poor adaptation to the problems associated with moving. Other evidence for the adverse effects of transfer on role disruption has been shown by Marshall and Cooper (1976) and by Seidenberg (1973). In a study of mobile managers and their wives, Marshall and Cooper (1976) found that the stresses on the managers and their families, both during and after a transfer, were greater and more complex than anticipated. They concluded that much of the stress, and the managers' ability to cope, were dependent on the stage of the family life cycle that they were experiencing. They also concluded that many managers moved at a time which was most inappropriate for the family, that is, when the manager has young, school-age children, and a "captive" (housebound) wife. Seidenberg (1973), in his series of case studies on the wives of job transferees, attributed the wife's problems to the fact that her identity was not easily transferable to a new community.

Further indirect evidence for the negative effects of job transfers also comes from research on military wives who had experienced a term of separation from their spouses as a result of transfer (Bey and Lange, 1974; Hall and Simmons, 1973; Isay, 1968; Lieberman, 1971; Wallen, 1969). Marsh (1976) found the major problems concerned with transfer were financial aspects, housing problems, and separation. He also found families with most hardships tried to make the most use of available community resources, although McKain (1973) found exactly the opposite.

Studies assessing the effects of job transfers on the children indicate that in general children have negative attitudes towards moving (Khelif, 1970; Olive, Kelsey, Visser and Daly, 1976). Older children and teenagers appear to find the move more difficult to cope with than younger children (Barrett and Noble, 1973; Connelly, 1978). A common adverse effect of transfer among adolescents appears to be less developed peer relationships (Barrett and Noble, 1973; Douvan and Adelson, 1966). Negative attitudes have also been noted in young children, especially when the transfer involves father absence (Kantor, 1963; Marshall and Cooper, 1976). However, no studies have yet shown evidence of negative effects on the child's mental health, relationship with parents, or academic achievement. In fact, some studies have reported positive effects, such as increased independence (Douvan and Adelson, 1966) and higher academic achievement (Inbar, 1976; Kenny, 1967). It is possible that such contradictory results may be due to some aspect of the situation being neglected in the research. For example, the moderating effects of social support systems, discussed in Section 3.2.2, could make a considerable difference by reducing the apparent adverse reactions.

There is already some evidence that the effects of certain moderating conditions may serve to reduce the adverse effects of stressful occupational situations, such as job transfer. A major variable is the individual's perception of the move itself. For example, an early paper by Sorokin (1959) on geographical mobility noted both positive and negative reactions. Sorokin drew a definite relationship between pathology, alienation, and geographical mobility, but these effects were moderated by the individual's attitude. Further evidence came from a study by Pedersen and Sullivan (1964) who compared histories of mobility in normal and emotionally disturbed children of military families. The major variable was the variation in parental attitude towards mobility. Specifically, the parents of the non-disturbed children were more likely to be accepting of mobility. Of related importance is the degree of parental integration into the new community. Gabower (1959) showed that parents of problem children were less active than parents of control cases in such areas as identifying with the community through participation in community activities.

As well as job transfer, another specific stressor which has been examined is that of shiftwork. While literature is available on the physiological and sociological implications of shiftwork (Brown, 1975; Rutenfranz and Colquhoun, 1978), there are only a handful of studies looking at the effect of shiftwork on the spouse and family. An early study by Banks (1956) found that a major source of concern to wives was the disruption of weekend social life, while Brown (1959, in Sergeant, 1971) isolated the negative effects of shiftwork as centering around the husband being at home 'at the wrong times'. Taylor (1969) reported that 76% of refinery workers stated that

shiftwork adversely affected their social life, but only 59% stated that it affected their family life. Such effects are not necessarily all negative. Mott et al., (1965) argued that marital happiness was more tied to personality factors than to environmental influences such as shiftwork, while more recently Walker (1978) has outlined some of the positive effects of shiftwork on a relationship, which may help to alleviate many of the negative effects documented. Some of the advantages he outlined included having the husband at home to help with the house and children, and having more leisure time together.

As well as separation due to job transfer and shiftwork as outlined above, occupationally caused parental absence can still occur even without the extreme situation of prolonged separation. For example, some occupations require considerable time, leading to the withdrawal of the job incumbent from the normal family activities. The adverse effects of prolonged travel due to the occupation have also been considered (Brett, 1980). Parental absence leading to deprivation appears to have unfavourable consequences in children's development, and is well documented (Kalish, 1978). There is also evidence available suggesting that parental absence in the earlier years of life has more detrimental consequences than when it occurs later (Anderson, 1968; Hetherington, 1966; Pedersen and Sullivan, 1964; Seplin, 1952). Furthermore among younger children, there is evidence that boys experience more detrimental effects as a result of father absence (Lynn and Sawrey, 1959; Tiller, 1961). However, as the child gets older, detrimental effects appear more common among girls (Hetherington, 1972). A relationship between length of absence and higher levels of emotional maladjustment has also been suggested (Gabower, 1959; Trunnell, 1968).

3.2 Moderators of occupational stress

Many of the studies reviewed in the previous section have found relationships between stress and various detrimental effects on marital and familial functioning, but the correlations between these have usually been small. This suggests that stress measures account for a small proportion of the variance in the criterion variables, and that such measures are not likely to be of value for predictive purposes (Johnson and Sarason, 1979; Payne, Jick and Burke, 1982).

Part of the problem associated with the low explained variance arises because of the lack of attention given to those variables which may moderate the effects of stress. A number of authors have indicated the possible confounding role of moderator variables, such as sociological, psychological, and physiological factors, in determining the precise relationship between stressors and their effects (Dohrenwend and Dohrenwend, 1974; Rabkin and Struening, 1976; Rahe, 1978). The two following sections examine two classes of moderator variables which research suggests are effective in moderating stress reactions. These classes are internal moderators, such as personality (specifically locus of control), and external moderators such as social support.

3.2.1 Locus of control

As the relationships between occupational stressors and their resulting effects are more closely investigated, the influence of moderator variables is being more accurately evaluated. The most active area of research into 'internal' moderators is in the area of personality.

For example, one aspect of personality receiving considerable attention is the Type A versus Type B behaviour differentiation. The relationship between Type A behaviour and coronary heart disease was reported some years ago (Rosenman, Friedman, Straus, Wurm, Kositchek, Harn, and Werthessen, 1964), with Type A regarded as a behavioural style characterized by 'extremes of competitiveness, striving for achievement, aggressiveness, haste, impatience, restlessness, hyper-alertness, explosiveness of speech, tension of facial musculature and feelings of being under pressure of time and under the challenge of responsibility' (Cooper and Marshall, 1978, p.98). Type B refers to a behavioural style that is distinctly different from the Type A profile. It appears that individuals exhibiting a Type A profile are more likely to perceive and exaggerate stressful conditions (McMichael, 1978). Over the past twenty years, considerable empirical evidence has accrued in support of these dichotomous behavioural patterns, with several reviews being available (Cooper and Marshall, 1976; House, 1974; Jenkins, 1971a, 1971b, 1976; Kahn and Quinn, 1970; Price, 1982; Rosenman and Friedman, 1974). A number of other personality variables have also been investigated in relation to their moderating effects on stress, such as neuroticism (Davidson and Veno, 1980; Eysenck and Eysenck, 1964; Pratt, 1978, 1979), and introversion/extroversion (Kahn et al., 1964). Higher levels of neuroticism have been associated with increased mortality rates among coronary heart disease patients (Cooper and Marshall, 1976). In addition, studies have indicated that introverts tend to perform better under monotonous conditions than do extroverts, apparently because of a greater chronic arousal among introverts (Welford, 1974). However, extroverts tend to remain stable under

pressure and maintain performance levels under such conditions (Davidson and Veno, 1980).

Another important personality dimension which has received considerable attention with respect to its moderating effects on stress is the concept of perceived behavioural control over events in the person's social environment (Joe, 1971; Lazarus, 1966; Lefcourt, 1976; Rotter, 1966). Lazarus (1966) argued that a person's general belief about their control over the social environment influenced their perception of threat. This perception of threat was increased if a person believed that they lacked this control. The concept of general feelings of helplessness and lack of control over the environment was formalised by the development of a questionnaire instrument measuring locus of control (Rotter, 1966). This 29-item Internal-External scale is a measure of the extent to which an individual believes that reinforcements in his life are under his control and contingent on his behaviour (internal locus of control), as opposed to believing that reinforcements are not under his control or contingent upon his behaviour (external locus of control).

The majority of studies have found that those people with an internal locus of control have shown a lessening of negative effects from environmental stressors. Anderson and his associates (Anderson, 1977; Anderson, Hellriegel and Slocum, 1977), studied small business managers involved in a flood, and reported that internals perceived the flood as less stressful than externals. Kobasa (1979) reported that externally orientated managers who had recently experienced highly stressful events were more likely to succumb to illness than internals exposed to the same level of stress. Johnson and Sarason (1978) found significant correlations between negative life changes

and depression only with externally orientated subjects. Kilpatrick, Dubin and Marcotte (1974) showed that, for medical students under the stress of education, those with an internal locus of control exhibited less mood disturbance than those who were externally oriented. In addition, Shipley and Cook (1979) found that an internal locus of control was inversely related with both self-ratings of depression and higher systolic blood pressure.

There have been indications that the relationship between stress and locus of control is itself moderated by a number of intervening variables. A number of models have placed emphasis on the appraisal of the environmental threat as the central mechanism mediating the perception of stress (Kyriacou and Sutcliffe, 1978; Lazarus, 1966; Lefcourt, 1976; Weyer, 1982; Weyer and Hodapp, 1975, 1979). In a study based on these assumptions, Kyriacou and Sutcliffe (1979) found support for the argument that individuals with an external locus are more likely to appraise a situation as threatening and hence may experience greater stress. Related to this, Chan (1977) has argued that the degree to which a person experiences stress is related to the degree to which he perceives himself as lacking control over a potentially threatening situation.

Brousseau and Mallinger (1981) suggest that the effect of locus of control may operate through improved coping strategies by internals, who because they believe they are capable of influencing their circumstances, actively search for methods of dealing with environmental stressors. Some support for this suggestion is obtained from the finding that internal locus of control is associated with a greater tendency to use relevant task information to gain mastery over the environment (Davis and Phares, 1967; Phares, 1968; Pines, 1973).

Other possible mechanisms include a lowered stress threshold for externals (Crandall and Lehman, 1977); and the perception of less role ambiguity for internals (Organ and Greene, 1974). However, Keenan and McBain's (1979) study did not support this, finding that both internals and externals perceived similar levels of role ambiguity. They did however find a significant correlation between role ambiguity and work tension only for externals, indicating that role ambiguity is less aversive for internals. The position is further complicated by the expectation that a significant amount of situational experience negates the predictive importance of the locus of control variable (Phares, 1976; Rotter, 1975). Despite this, Phares (1976) has concluded that this ability on the part of the internal individual to master the environment has remained as one of the more consistent behavioural correlates of locus of control to emerge from the large body of research published over the previous ten years.

3.2.2 Social support

The second major class of moderator variables are the "external" moderators. These variables include concepts such as support systems (Caplan, 1974; Caplan and Killilea, 1976) or social support (Cobb, 1976; Payne, 1980). It is argued that people who believe they belong to a social network of communication and mutual obligation experience social support (Henderson, 1980; Sarason, 1981).

Cobb (1976), after he reviewed evidence that supportive interactions among people are protective against the health consequences of life stress, concluded that social support can protect people in crises from a wide variety of pathological states.

Relationships have been found between social support and lack of pregnancy complications, despite high life change scores preceding birth (Nuckolls, Cassel and Kaplan, 1972). Other studies have shown social support positively effecting the high birth weight of children (Morris, Urdy and Chase, 1973), the lack of post-hospital psychological reactions of children after tonsillectomy (Jessner, Bloam and Waldfogel, 1952), recovery from illness (Bakeland and Lundwall, 1975; Chambers and Reiser, 1953; Chen and Cobb, 1960; deAraujo, vanArsdel, Holmes and Dudley, 1973; Egbert, Battit, Welch and Bartlett, 1964), and reactions to bereavement (Burch, 1972; Gerber, Wiener, Battin and Arkin, 1975; Parkes, 1972).

The conclusion that supportive interaction among people is important is hardly new. What is new is the assembling of hard evidence that adequate social support can protect people in crisis from a wide variety of pathological states. However, most studies have concentrated on acute stress, such as occurs as a result of a sudden identifiable crisis. It is still not clear whether social support can moderate the effects of chronic stress, such as is often found in organizations. It is also very likely that effective social support mechanisms may change over a person's life, with different support systems gaining importance at different periods. To date, no studies have isolated the mechanisms that social support utilizes in reducing stress. However, its effectiveness is most likely due to three mechanisms, stress-reduction, stress-protection, and stress-buffering.

French (1974) summarised some of a National Aeronautical and Space Administration (NASA) study which tended to show that the association between job stresses, such as work load and role

ambiguity, and physiological outcomes (e.g. blood pressure) was positive among men with poor interpersonal relations, and absent or negative among men with good interpersonal relations. Recent Australian and American surveys of the police (Davidson, 1979; Hurrell, 1977) have indicated that absence of social support may be an important stressor inherent in police careers. Both studies found that the majority of police respondents reported not being able to seek social support from either their supervisor or from persons other than their spouse. Kroes, Margolis and Hurrell (1974) suggested that a police officer is better able to cope with job stress if he feels that his superiors understand and know his problems and will support him.

A number of occupational epidemiological studies have given support to the hypothesis that supportive social relations can protect a worker from the detrimental effects of occupational stressors. Cassel and Tyroler (1961) studied a factory town setting where two distinct groups of workers were found. The first group were those who were the first of their family to leave behind a traditional life for a new life in the town. The second group were those whose fathers had moved some years previously and had worked at the factory before them (second generation), and who presumably had extensive family support. The results showed that the better health of the "second generation" workers was evident for all ages of subjects, and was taken to indicate that the better social support of the second generation workers acted as a buffer mechanism, which lessened the direct effects of the otherwise unsettling and stressful experience of the major move required to take up employment. Caplan (1971) in a study of NASA personnel found good work relations served as a buffer between a

variety of environmental stressors and the resultant physiological stress, while Hite (1975, in McMichael, 1978) found that lack of challenge was most closely associated with low self-esteem and depressed mood where workers reported receiving inadequate support from their supervisors and co-workers.

Wells (1982) has examined the conditioned effect of perceived social support on the relationship between perceived work stress and health outcomes. Social support from supervisor, spouse, co-workers, and friends and relatives was considered. She reported that the social support of wives and supervisors was much more effective in mitigating the effects of perceived stress on health than was the support of co-workers and friends and relatives. This study highlighted the importance of considering the source of social support. The much greater importance of support from supervisor than from co-worker suggests that organisational and hierarchical factors may be critical in this context.

However, Pinneau (1975) analysed social support among men selected from 23 occupations, and concluded that the evidence that social support acted as a buffer against stress was quite weak. Furthermore the studies concerning social support, reviewed above, consider only relationships between indicators of support and perceived stress, as assessed by questionnaire (La Rocco, House and French, 1980; Payne, 1980). They do not establish that support mitigates the relationship between objective job conditions and perceived stress. However, this criticism may turn out not to be relevant, as considerable justification can be found for using perceived stress measures (see Section 1.2). In the long term, locating an all-purpose social support buffer may prove just as

elusive as identifying the stress resistant individual. What is more likely to emerge from future research is a more detailed specification of the circumstances under which social support does or does not ameliorate the perceptions and effects of stress at work.

Finally, an important aspect of social support that is being investigated concerns the concept of the family as a support system (Burke and Bradshaw, 1981; Caplan, 1976; Payne, 1980). Caplan (1976) has outlined seven support system functions of the family: (1) as a collector and disseminator of information about the world, for example information passing between generations, (2) as a feedback guidance system, helping an individual to interpret their experiences in line with the family's values, (3) as a source of ideology, belief systems, value systems, and codes of behaviour, (4) as a guide and mediator in problem solving, (5) as a source of practical service and concrete aid, (6) as a haven for rest and recuperation, and (7) as a reference and control group, providing reasonable guides for living.

These last three sections have considered a review of articles relevant to the questions being considered in this research. In the following section, the design and method of the research is outlined. Related to this is a more formal specification of the hypotheses being tested. These hypotheses are directly derived from the research questions raised in the studies discussed above.

SECTION 4

DESIGN AND METHOD

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4.1 Design

The research paradigm utilized in this study was based on the three factor model as outlined in Section 1. From this model, the variables were divided into three major groups, covering sources of stress, moderators, and effects of stress. Within each factor, a number of variables were assessed. The basic three factor design was further modified by the addition of stressors from the wife's occupation.

Table 4.1 outlines the groupings of variables used in the study and indicates their relationship to each factor and to each other. For the sources of stress factor, five major categories were isolated, covering the husband's occupational stressors, the husband's life event stressors, the wife's occupational stressors (if engaged in employment apart from housework), the wife's life event stressors, and the wife's housework stressors. For the husband's and wife's categories of occupational stressors, the actual stressors assessed were the same. These covered the areas of role conflict, role ambiguity, work overload, work underload, lack of free time, co-worker conflict, and job pressure (see Section 4.5.1 for a detailed description of these stressors). The two life event stress categories covered both the number of positive events and the number of negative events. The additional stressor category for the wife, that of housework stressors, covered the areas of boredom, physical effort, lack of free time, and work overload.

Table 4.1

Grouping of the variables used in the present study

SOURCES OF STRESS	MODERATORS	EFFECTS
<u>Husband</u>		
<u>Occupational stressors</u>	Social support from	Husband's
Role conflict	- wife	perception of
Role ambiguity	- friends	job impact on
Work overload	- neighbours	the family
Work underload	- relatives	
Lack of free time	- supervisor	Wife's
Co-worker conflict	- co-workers	perception of
Job pressure		husband's
	Tangible assistance	job impact
<u>Life stressors</u>		
Number positive	Willingness to	Marital stress
Number negative	accept support	
	Global feelings	Marital
	of support	communication
		GHQ12
	Locus of control	
<u>Wife</u>		
<u>Occupational stressors*</u>	Social support from	Wife's
Role conflict*	- husband	perception of
Role ambiguity*	- friends	job impact on
Work overload*	- neighbours	the family*
Work underload*	- relatives	
Lack of free time*	- supervisor*	Husband's
Co-worker conflict*	- co-workers*	perception of
Job pressure*		wife's
	Tangible assistance	job impact*
<u>Life stressors</u>		
Number positive	Willingness to	Marital stress
Number negative	accept support	
	Global feelings	Marital
	of support	communication
		GHQ12
	Locus of control	
<u>Housework stressors</u>		
Boredom	Global feelings	
Physical effort	of support	
Lack of free time		
Task overload	Locus of control	

* These variables were assessed only for those wives engaged in employment outside the home.

The second major factor considered was the moderators of stress factor, and the areas assessed were the same for both the husband and wife, covering social support and personality. The levels of social

support was determined in nine areas covering support from spouse, friends, neighbours, relatives, supervisor, and co-workers, the level of tangible assistance, the willingness to accept support, and the global feelings of support. The area of personality was assessed by the locus of control measure (see Section 4.5.3 for a detailed description of these moderators).

The main type of analysis undertaken in this research was based on a multiple regression model, and both the stressor variables and the moderator variables were entered into the regression equation as predictor variables. The criterion variables in the analysis were those variables contained in the third factor, the effects of stress factor. These variables assessed five main areas from two viewpoints each, making a total of ten criterion variables in all. The two viewpoints were from the husband's perception and from the wife's perception. The five areas assessed covered the impact of the husband's job on the family, the impact of the wife's job on the family, the level of marital stress, the level of marital communication, and the level of psychological health. These are described in detail in Section 4.5.2.

4.2 A Pilot Study: Occupational Stress in Prison Officers

As all of the instruments utilized in the present research had been used in previous research studies (see Section 4.5), pilot studies of the instruments themselves were not necessary. However, the basic experimental design of this research was piloted in a major study undertaken to investigate the sources and effects of occupational stress in prison officers. A report outlining in detail the development and results of this research project has been

published (Voges et al., 1982). The following section constitutes a brief summary of the salient features of the study.

The questionnaire developed for the prison officer research consisted of three major sections, which covered the specific sources of stress within the prison environment, as well as levels of life event stress outside the workplace, the moderator variables of personality and organizational structure, and the effects measures, covering physical and psychological health. To assess the sources of stress, a number of individuals and groups were consulted and a large pool of potential topics collected. In order to isolate the salient aspects of the prison officer's job from this extremely broad base of topics, the questions were ordered into the six areas of potential stress as defined by McGrath (1976) (refer to Section 2 for an outline of McGrath's model). This organization of the questionnaire prepared a theoretical framework on which the subsequent data analysis could be based. The two remaining sections were based on standard measures derived from previous research (Scheier and Cattell, 1961; Zaleznik, Kets de Vries and Howard, 1977).

In addition, a wives' questionnaire was generated and analysed in a manner similar to that used for the officers. The major differences were the exclusion of some of the areas of occupational stress, as well as a number of moderator variables. The sample investigated in this study consisted of 575 prison officers and 301 wives. As well, a control group of army personnel (n = 83) was also studied, to provide a baseline for comparison with the major rank groups of the prison officer sample. These rank groups consisted of basic grade prison officers, ranking prison officers, and instructors.

For the measures of life events and physical and psychological health, the analysis of scores obtained from the prison sample showed that the prison groups had a higher level of stress-related physical and psychological symptoms than did either the army control group or available normative samples (Banks, Clegg, Jackson, Kemp, Stafford and Wall, 1980). Instructors showed the lowest scores of all the prison groups on most of the measures considered. For the life stress measure, both prison officers and ranking prison officers showed a significantly higher level of reported life stresses than either the instructors or the army control group. In general, the evidence from the health survey indicated that prison institutions create an extremely stressful environment for those that work in them.

For the sources of occupational stress, the findings indicated that the major areas of overall concern appeared to be with organizational factors, both formal and informal. These factors covered such aspects as organizational development, staff training, inconsistent supervision, and the lack of concern or interest from senior staff. These organizational problems appeared to be instrumental in disrupting family life, especially where the family lived in a prison village. A frequent complaint linked stress to the situational pressures resulting in an officer being unable to leave the job behind and to "switch off" when he came home. This applied to all officers, but was most severe for those who worked and lived with the same people. The general lack of public information about the prison officer's role and the stereotyped and negative social image attributed to the occupation were a source of concern to a majority of the officers participating in the survey. This factor, in addition to the institution-related problems outlined above, served to further

constrict the "life space" of the prison staff and to isolate them from the wider community.

The results obtained from the wives' survey indicated that although half the wives participating in the research expressed positive general attitudes to their husband's occupation, it was clear that prison officers' wives have to cope with severe occupationally-related stress. The results of the survey strongly indicated that the families of prison officers were a group at risk to both physical and mental health problems.

This important finding that the 'families of Prison Officers are an occupational group at risk' (Voges et al., 1982, p.111) lead directly to the use in the present study of an "effects on the family" scale. The level of effect on the family was assessed from four dimensions, as described in detail in Section 4.5.2. These dimensions were the husband's perception of the impact of his job on the family, the wife's perception of the impact of her husband's job on the family, the wife's perception of the impact of her job on the family, and the husband's perception of the impact of his wife's job on the family. The final two dimensions were only appropriate for those situations where the wife worked at employment outside the home.

In addition, as the type of marital relationship is an important component of the family, two scales were included to assess the quality of this relationship. These scales assessed the level of marital communication and the level of marital stress.

The other major criterion variable used in the present research was a scale assessing the level of psychological health, the General Health Questionnaire (GHQ). This value of this scale was shown in the prison officer study. The GHQ was very effective in comparing the

Table 4.2

Means, standard deviations, and significant score differences for the prison officer and control groups on the GHQ (adapted from Voges et al., 1982, p.47 and p.48).

Group	n	Mean	s.d	t-tests			
				vs army control		vs normative sample	
				t	p	t	p
Prison officers	332	12.46	5.47	3.41	<.001	11.42	<.001
Ranking prison officers	108	12.77	5.27	3.44	<.001	8.88	<.001
Instructors	122	12.01	4.88	2.59	<.001	7.66	<.001
Army control	83	10.22	4.81				
UK Normative sample	552	8.80	4.02				

levels of psychological health among the prison officer rank groups, and both the army control group and the United Kingdom normative sample of engineering plant workers. The results obtained are shown in Table 4.2, and show the low level of psychological health among the prison officers, compared to the control and normative groups.

The prison officer research study was a useful pilot study for the present research, and indicated the importance of variables assessing occupational impact on the family and the marriage, as well as showing the discriminating ability of the GHQ in identifying potentially stressed groups. As well as these results, the study demonstrated the value of a correlational approach to applied research, and helped in the development of the particular types of analysis undertaken in the present research. These analyses are discussed in detail in Sections 5 and 6.

4.3 Hypotheses

The previous three chapters outlined the issues that are being considered in the present research. The points raised in these reviews were operationalized into the following hypotheses.

1. The use of a set of wide-ranging measures in the design will lead to an increase in the level of explained variance for all criterion variables (see Sections 1.1 and 1.2).
2. In New Zealand, occupations which are more related to "blue collar" positions will exhibit different levels of occupational stress to "white collar" workers (see Section 1.4).
3. Different occupations will exhibit different levels of occupational stress from different sources (see Section 2.2).
4. Higher levels of occupational stress will be related to: (a) Higher levels of adverse impact on the family; (b) Higher levels of marital stress; (c) Lower levels of marital communication; and (d) Lower levels of psychological health (see Section 3.1).
5. Higher scores on the locus of control measure (external orientation) will lead to: (a) Higher levels of adverse effects on the family; (b) Higher levels of marital stress; (c) Lower levels of marital communication; and (d) Lower levels of psychological health (see Section 3.2.1).
6. Higher levels of social support will lead to: (a) Lower levels of adverse effects on the family; (b) Lower levels of marital stress; (c) Higher levels of marital communication; and (d) Higher levels of psychological health (see Section 3.2.2).

Table 4.3
The sample structure

Occupational group	Number in sample	Occupational category
Barristers and solicitors	43	Professional
Primary school teachers	107	Intermediate non-manual
Insurance salesmen	41	Intermediate non-manual
Ambulance officers	34	Skilled non-manual
Prison officers	62	Semi-skilled non-manual

4.4 Subjects

A sample of occupational groups was obtained from four of the seven categories of occupations discussed by Cherry (1978). The occupational categories were determined using census codes and cover seven separate categories. These are professional, intermediate non-manual, skilled non-manual, semi-skilled non-manual, skilled manual, semi-skilled manual, and unskilled manual. The categories sampled in the present research covered professional, intermediate non-manual, skilled non-manual, and semi-skilled non-manual. The specific occupational groups sampled from these categories were barristers and solicitors (n=43), primary school teachers (n=107), insurance salesmen (n=41), ambulance officers (n=34), and prison officers (n=62). This information is summarised in Table 4.3.

Ages of husbands and wives ranged from 19 years 4 months to 56 years 0 months, length of marriage ranged from three months to 31 years 7 months, number of children living at home ranged from none to

five, with their ages ranging from one month to 24 years. The sample was predominantly Caucasian (93.3%), with 4.8% Maori and 1.4% from other ethnic groups. This can be compared to the overall New Zealand population, where 8.7% of the population are Maori (New Zealand Official Yearbook, 1981).

Of the wives, 61.7% were engaged in employment outside the home with 58.8% of those working more than 20 hours per week. The wives occupations were split into six broad categories. These covered professional (n=19), teaching (n=62), nursing (n=18), secretarial (n=51), process worker (n=27), and housewife (n=110).

4.5 Measures

The measures utilized in the present study were incorporated to evaluate the three major areas which have been shown to be important in any investigation of stress (Jick and Payne, 1980). The particular justification for the inclusion of some of the measures used came from their use in the earlier study of occupational stress in prison officers, discussed in Section 4.2. The areas evaluated cover the perceived stress, the perceived effects of these stressors, and the perceived moderators which are able to modify the stress source and their effects. Within this theoretical framework a number of measures were chosen. Some of the criteria adopted for the choice of measures in each of the areas include: (1) their use in previous research, (2) their appropriateness to the present study, (3) reliability, (4) validity, and (5) ease of administration.

Variables were measured in each of the three major areas, for both the husband and wife. The husband's sources of stress included occupational (seven variables) and life events (two variables), while

the wife's sources included the occupational where appropriate (seven variables), life events (two variables), and housework (four variables). Moderators of stress for the husband included social support (nine variables) and locus of control (one variable), while moderators for the wife included social support (nine variables reduced to seven if not engaged in employment) and locus of control (one variable). Finally, effects of stress for the husband investigated impact on the family (twelve variables), the marriage (two variables), and psychological health (one variable), while effects of stress for the wife investigated impact on the family (twelve variables reduced to none if not engaged in employment), effects on the marriage (two variables), and psychological health (one variable). All of these variables were outlined in Table 4.1, with detailed descriptions discussing their source and composition in the following three sections.

4.5.1 Measures of perceived stress

A series of measures were used to assess levels of perceived stress for a number of dimensions. These dimensions include the husband's occupation (seven variables), the wife's occupation (seven variables), husband's life events (two variables), wife's life events (two variables), and the wife's housework (four variables).

A number of methods for classifying occupational stressors have been proposed. For example McGrath (1976) has proposed a model of three intersecting systems, the physical environment, the social environment, and the person. The intersection of these systems gives rise to the three subsystems of task, role, and behaviour setting. See Section 2.2 for a detailed account of sources of stress in terms

of McGrath's model. A facet analysis of job stress by Beehr and Newman (1978) resulted in four subcategories of the environmental facet dealing with stress sources. The purpose of a facet analysis is to 'delimit and make explicit the phenomena one wishes to investigate It is important in the facet design to specify all the facets one considers relevant to the domain, regardless of whether all the properties involved are to be dealt with in the immediate empirical phase of the research' (Beehr and Newman, 1978, p.670). Foa (1968) considers a facet as a conceptual dimension underlying a set of variables. These four subcategories obtained by the facet analysis covered job demands and task characteristics, role demands or expectations, organizational characteristics and conditions, and the organization's external demands and conditions.

These methods of classifying stressors can be related to three major areas of occupational stressors identified in the research literature, that is, job qualities, organizational roles, and relationships at work (Schuler, 1982). Job qualities refer to aspects of the job such as work overload and work underload. Work overload results from having too many job demands and/or insufficient time to complete tasks (French, Rodgers and Cobb, 1974), while work underload results from a lack of challenge and/or a desire to have more work-orientated needs satisfied (Schuler, 1982; Selye, 1956). Organizational roles relate to either role conflict or role ambiguity (VanSell, Brief and Schuler, 1981). Role conflict results from conflicting information about what is required from a person on the job, either from incompatible demands from others, or from differences between the person's own standards and their required behaviour (Keenan and McBain, 1979). Role ambiguity exists when a person has

insufficient information to carry out his job in an adequate manner (Fineman and Payne, 1981). A major stressful aspect of relationships at work is the presence of conflict with co-workers, including supervisors (Schuler, 1982).

To assess levels of perceived stress in these three major areas, through the five aspects discussed above, a number of multi-item questionnaire scales derived from previous research were utilized. Both the role conflict and role ambiguity measures were derived from Rogers and Molnar (1976), in their study of factors associated with role stresses in administrators from government agencies. The role conflict items (Appendix A.1.1) reflected intersender, inter-role, intrasender and person-role conflicts, while the role ambiguity items (Appendix A.1.2) reflected an inability to predict the responses of others and a lack of clear role expectations (Rizzo, House and Lirtzman, 1970; Rogers and Molnar, 1976). The work overload (Appendix A.1.3) and work underload (Appendix A.1.4) measures were derived from House and Harkins (1975), who used them in their study of the relationship between perceived occupational stress and status inconsistency. The measure of co-worker conflict (Appendix A.1.5) was derived from Weyer and Hodapp (1975) who developed a series of scales to measure perceived threat (Lazarus, 1966) in day-to-day situations.

In addition to these five measures, two further measures of perceived stress were included. In order to assess the relationship between availability of leisure time and impact on the family, some indication of interference with leisure activities was considered necessary. This was assessed using the lack of free time scale from Weyer and Hodapp's (1975) series of scales measuring perceived threat (Appendix A.1.6). Finally, a level of overall job tension was

obtained using the Frequency of Perceived Job Pressure (Buck, 1972), which assesses the effects of the job on the person's psychological state, as related to tension and frustration (Buck, 1972; Weyer, 1982) (Appendix A.1.7).

The items comprising these seven occupational stressor scales were combined for presentation into one section. All items were modified slightly from their original formats to obtain a five-point Likert scale ranging from "Strongly agree" to "Strongly disagree" (Voges et al., 1982). Scores were obtained on these seven occupational stressor variables from the husbands surveyed and from those wives who were engaged in some form of occupation apart from housework. Detailed descriptions of the items comprising each scale are presented in Appendix A.1, as indicated above.

The level of life event stress experienced was measured by the Life Experiences Survey (LES) (Johnson and Sarason, 1979; Sarason, Johnson and Siegel, 1978). The LES differs from earlier life stress measures such as the Schedule of Recent Experiences (Holmes and Rahe, 1967) in that subjects are asked to indicate whether they perceived an event that occurred as being positive or negative, and also to indicate the level of impact that the event had on their lives. A number of recent studies (Lundberg, Theorell and Lind, 1975; Vossell and Froehlich, 1979) have produced evidence that life scores based on self ratings are better predictors than scores derived from mean adjustment ratings. For the present research a shortened (32-item) version of the original 57-item instrument was administered. Items omitted were those dealing with study and occupation related events. Four measures are obtainable, the number of positive events, the impact of positive events, the number of negative events, and the impact of negative

events. Correlations between the number of events and the perceived impact were high (0.82 for positive events and 0.88 for negative events), and in view of the finding of Ross and Mirowsky (1979) that the most predictive life stress index consisted of simply adding up the events, it was decided to consider only two measures of life event stress, that is, the number of positive events, and the number of negative events. The LES was administered to both husband and wife, resulting in two life event stress variables for both (see Appendix A.2).

In addition the wives questionnaire included four scales assessing various aspects of housework stress (Weyer and Hodapp, 1975). Their original scale did not contain any subscales, so a factor analysis was carried out on the data obtained for the variables, and four factors were obtained. These covered the areas of boredom, physical effort, lack of free time, and task overload (See Appendix A.3 for a presentation of the results of the factor analysis).

4.5.2 Measures of perceived effects

As indicated in Section 3.1, an important area of stress research concerns the effects of the occupation on the family and marital relationships. Recent reviews (Burke and Bradshaw, 1981; Cooper and Marshall, 1978a; Payne, Jick and Burke, 1982) have suggested that this remains a neglected area. For the present study, measures utilised to examine aspects of the impact of an occupation on the family covered the husband's perception of his job's impact, the wife's perception of her husband's job impact, the wife's perception of her job's impact, and the husband's perception of his wife's job

impact. Other effects examined included the husband's perceived marital stress, the wife's perceived marital stress, the husband's perceived marital communication, the wife's perceived marital communication, the husband's psychological health, and the wife's psychological health.

The first four scales, assessing occupational impact on the family, were based on a measure developed by Burke, Weir and DuWors (1980b). The original measure was used to assess the wife's perception of the effects of her husband's occupation in a study of prison administrators. The scale used in the present study included two additional items dealing with relationships with children, as it was felt that the original scale neglected some aspects of this area. This scale, with appropriate rewording not related to the actual content, led to the development of the three further scales assessing the differing perceptions as outlined above. The rewording simply consisted of changing the sentences so that they applied either to the subject's perception of his or her own job impact on the family, or to the subject's perception of the impact of his or her spouse's job on the family. The scales were also reworded dependent on the sex of the subject. An analysis of the factor structure within the present research, led to five subscales, assessing the level of disruption, relationships with children, relationships with spouse, requirements to relocate, and public behaviour (see Appendix A.4.1).

Marital adjustment within the husband and wife pair was assessed by two measures, those of marital stress (Weyer and Hodapp, 1975), and marital communication (Schumm, Figley and Jurich, 1979). The marital stress scale was part of a battery of scales constructed by Weyer and Hodapp (1975) to measure perceived threat in day-to-day situations at

work or in the family. A number of these scales have been previously discussed above (Section 4.5.1). The Marital Communication Inventory (Bienvenu, 1970, 1978) is a popular measure of marital communication (Cromwell, Olsen and Fournier, 1976). The items used in the present study were taken from a study which analysed the dimensionality of the most differentiating items in the original Inventory and obtained a smaller subset of items (Schumm, Figley and Jurich, 1979). As both the husband and wife completed both of the marital adjustment scales, four variables were obtained overall. Both the impact on the family scales and the marital adjustment scales were modified slightly from their original formats, to a five-point Likert scale ranging from "Strongly agree" to "Strongly disagree" (see Appendix A.4.2). This modification was done to retain the five-point Likert scales used with all other measures in the study.

The measure of psychological health utilized for both the husband and wife was the GHQ12, which has been derived from the original 60-item General Health Questionnaire (Goldberg, 1972, 1978), and designed as a self-administered screening test for detecting minor psychiatric disorders. The GHQ has been widely used in occupational studies (Fineman, 1978; Fletcher and Payne, 1980; Hepworth, 1980; Liff, 1981; Payne and Arroba, 1980; Pratt, 1978, 1979; Stafford, Jackson and Banks, 1980; Warr, Cook and Wall, 1979). Recently, some normative data for the GHQ12, on a limited number of British occupational groups has been published (Banks et al., 1980). Analysis of the factor structure supports the interpretation of the GHQ12 as a unidimensional measure of minor psychiatric disorders (Banks et al., 1980; Worsley and Gribbin, 1979), with higher scores indicating some psychiatric impairment (see Appendix A.4.3).

4.5.3 Measures of perceived moderators

Previous research investigating the relationship between occupational stressors and their effects has often found significant correlations, but those correlations have usually been small. This suggests that stress measures account for a small proportion of the variance in the criterion variables, and that by themselves such measures are not likely to be of value for predictive purposes (Johnson and Sarason, 1979; Payne, Jick and Burke, 1982). Part of this problem arises because of the relative lack of attention given to the variables which may moderate the effects of stress. A number of authors have pointed out the possible role of moderator variables, such as sociological, psychological, and physiological factors, in determining the precise relationship between stressors and their effects (Dohrenwend and Dohrenwend, 1974; Rabkin and Struening, 1976; Rahe, 1978). As previously discussed in Section 3.2, two major moderating variables felt to have an effect on the stressor --> effect link are social support (Caplan, 1974; Caplan and Killilea, 1976; Cobb, 1976; Payne, 1980), and locus of control (Joe, 1971; Kobasa, 1979; Phares, 1976).

A number of measures of social support have been developed covering differing aspects of the concept. The measure utilized in the present research was derived from Burke, Weir and DuWors (1980b), in their study of the relationship between occupational demands and the wife's well-being among prison administrators. Their original measure assessed the availability of support in the individual's social network in the three areas of spouse, friends, and neighbours. For a more complete assessment of levels of social support in the present study, three further sources were included, covering

supervisor, co-worker, and relatives (Wells, 1977, 1982). The original measure (Burke, Weir and DuWors, 1980b) also examined three further aspects, the availability of concrete or tangible assistance from others, general feelings of social support, and the willingness of the individual to accept or ask for support. Retaining these measures resulted in nine variables assessing social support for the husband, nine variables assessing social support for the wife engaged in employment, and seven variables for the wife not engaged in employment (see Appendix A.5.1).

The most widely used instrument measuring locus of control is that developed by Rotter (1966), and was utilized in this study. It has been used in a variety of stress studies, investigating the effects of a flood on small business managers (Anderson, 1977; Anderson, Hellriegel and Slocum, 1977), the effects of educational stresses on medical students (Kilpatrick, Dubin and Marcotte, 1974), and the relationship between stressful life events and the likelihood of succumbing to illness (Kobasa, 1979) (see Appendix A.5.2).

4.6 Procedure

Samples from the various occupations were obtained in a number of ways. The prison officer sample was obtained as a follow-up to a major study of the sources of occupational stress in prison officers (Voges et al., 1982). Subjects from the original study were approached by letter to take part in the present research, and were sampled from all areas of the country. The teacher sample was obtained from a list supplied by a large urban Education Board, the insurance salesmen were sampled from all areas of the country from information provided by their head office, the barristers and

solicitors' sample was obtained from a metropolitan area and a large provincial city, through contact with their professional association, and the ambulance officers were sampled from a metropolitan area. Complete confidentiality was assured at the beginning of the study.

Two similar booklets were prepared, one for completion by the husband, and one by his wife. The husband's booklet consisted of: a personal details section; a life events measure; locus of control scale; a number of separate scales measuring the husband's perceived sources of occupational stress; his perception of the effects of his job on his wife and family; the GHQ12; marital communication and marital stress scales; and finally a section, to be completed if his wife worked, covering his perceptions of the effects of her job on the family. The wife's questionnaire contained personal details; a life events measure; locus of control scale; her perceptions of the effects of her husband's job on the family; the GHQ12; marital communication and marital stress scales; a number of scales assessing the stresses of housework; and a final section containing the same sources of occupational stress scales as the husband, including her perceptions of the effects of her job on the family. This final section was to be completed by all the wives who engaged in some form of employment apart from housework. A detailed description of the scales can be found in the previous section. Copies of both questionnaires are included in Appendix B.

Subjects participated in the study by completing the questionnaires in their own time at home. This took approximately an hour. Both the husband and wife were asked to complete the questionnaires independently, place them in separate sealed envelopes, and return them by mail. The data was collected over a period of

several months, and was subjected to a number of types of analysis using the SPSS package (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975). The results of these analyses are outlined in detail in the following two sections.

SECTION 5

RESULTS I: OCCUPATIONAL AND FAMILY STRESS IN FIVE OCCUPATIONS

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5.1 Differences among occupations

To evaluate differences among the five occupational groups involved in the study, 37 of the variables utilized (see Section 4.5 for a detailed description) were divided into three groups. The groups were sources of occupational stress, effects of stress, and moderator variables.

Group 1 contained those measures which were concerned with the sources of occupational stress (seven variables) and life event stress (two variables). Group 2 contained measures of the effects of stress, covering adverse effects on the family (12 variables), marital relationships (4 variables), and psychological health (two variables). The final group contained those variables which could serve as possible moderators of stress and included measures of social support (nine variables) and personality (one variable).

5.1.1 Results for sources of stress

To evaluate differences among the various occupational groups, the scores for each subject on the nine sources of occupational stress variables were calculated by summing responses to individual questions, and were subjected to an analysis of variance. These analyses revealed that role conflict ($F(4,269)=14.07, p<.01$), role ambiguity ($F(4,264)=9.65, p<.01$), work overload ($F(4,281)=15.59, p<.01$), work underload ($F(4,277)=38.11, p<.01$), and co-worker conflict ($F(4,281)=15.40, p<.01$) varied significantly as a function of

Table 5.1

Means and standard deviations for measures of occupational and life event stress for five occupational groups.

	Prison Officers (n=62)	Insurance Salesmen (n=41)	Barristers Solicitors (n=43)	Ambulance Officers (n=34)	Primary Teachers (n=107)
<u>Occupational Stressors:</u>					
Role conflict	35.65 (6.47)	27.37 (6.89)	29.81 (6.02)	30.64 (6.49)	34.55 (6.95)
Role ambiguity	31.73 (6.94)	25.35 (4.77)	25.16 (5.03)	27.29 (5.46)	28.30 (6.36)
Work overload	12.61 (3.31)	12.85 (4.01)	15.40 (3.50)	12.57 (2.89)	16.12 (3.60)
Work underload	19.06 (4.87)	11.48 (2.80)	11.07 (3.38)	12.78 (4.34)	12.97 (3.76)
Lack of free time	16.08 (3.88)	14.32 (3.59)	14.33 (3.83)	15.54 (3.97)	14.89 (4.08)
Co-worker conflict	14.27 (2.50)	11.39 (3.50)	10.21 (2.53)	11.80 (2.22)	11.54 (3.01)
Job pressure	20.95 (5.83)	18.10 (5.35)	20.53 (5.11)	20.12 (5.73)	21.13 (6.00)
<u>Life Events:</u>					
Number positive	3.73 (4.32)	4.34 (4.20)	3.30 (2.57)	4.62 (4.03)	3.22 (2.53)
Number negative	3.63 (4.07)	2.12 (1.89)	1.88 (1.72)	4.56 (3.93)	2.68 (2.69)

occupational group. The remaining two measures, frequency of perceived job pressure ($F(4,279)=2.16, p>.05$), and lack of free time ($F(4,281)=1.98, p>.05$), failed to show significant differences.

Levels of life event stress for each of the occupational groups were also calculated by evaluating the scores on the Life Experiences Survey and were subject to analysis. This analysis showed significant differences among groups for the number of negative life events

($F(4,282)=5.54, p<.01$), while the number of positive life events failed to show a significant difference ($F(4,282)=1.63, p>.05$).

The mean stress scores and their standard deviations for the nine sources of stress were calculated for the five occupational groups and are presented in Table 5.1. A series of a posteriori multiple comparisons utilizing Scheffe's technique (Scheffe, 1959) were performed to isolate significant differences for the above means. Mean scores for those occupational stressors which showed significant differences among the occupational groups were standardized and plotted in Figure 5.1. For work underload, prison officers were significantly higher than all other groups, and for the co-worker conflict measure, prison officers were also significantly higher than the other four groups. Prison officers were also significantly higher than all other groups on the role ambiguity measure. A comparison of means for the role conflict measure showed that prison officers were significantly higher than all other groups except teachers, while teachers were significantly higher than both salesmen and barristers and solicitors. On the work overload measure, barristers and solicitors and teachers were significantly higher than the other three groups. Finally, for the life events measure, ambulance officers scored significantly higher than all the groups except prison officers on the number of negative life events.

5.1.2 Results for effects of stress

The variables in Group 2 evaluated the effects of stress, and were further subdivided into impact on the family, effects on marital relationships, and psychological health. These variables were measured from both the husband's perception and the wife's perception.

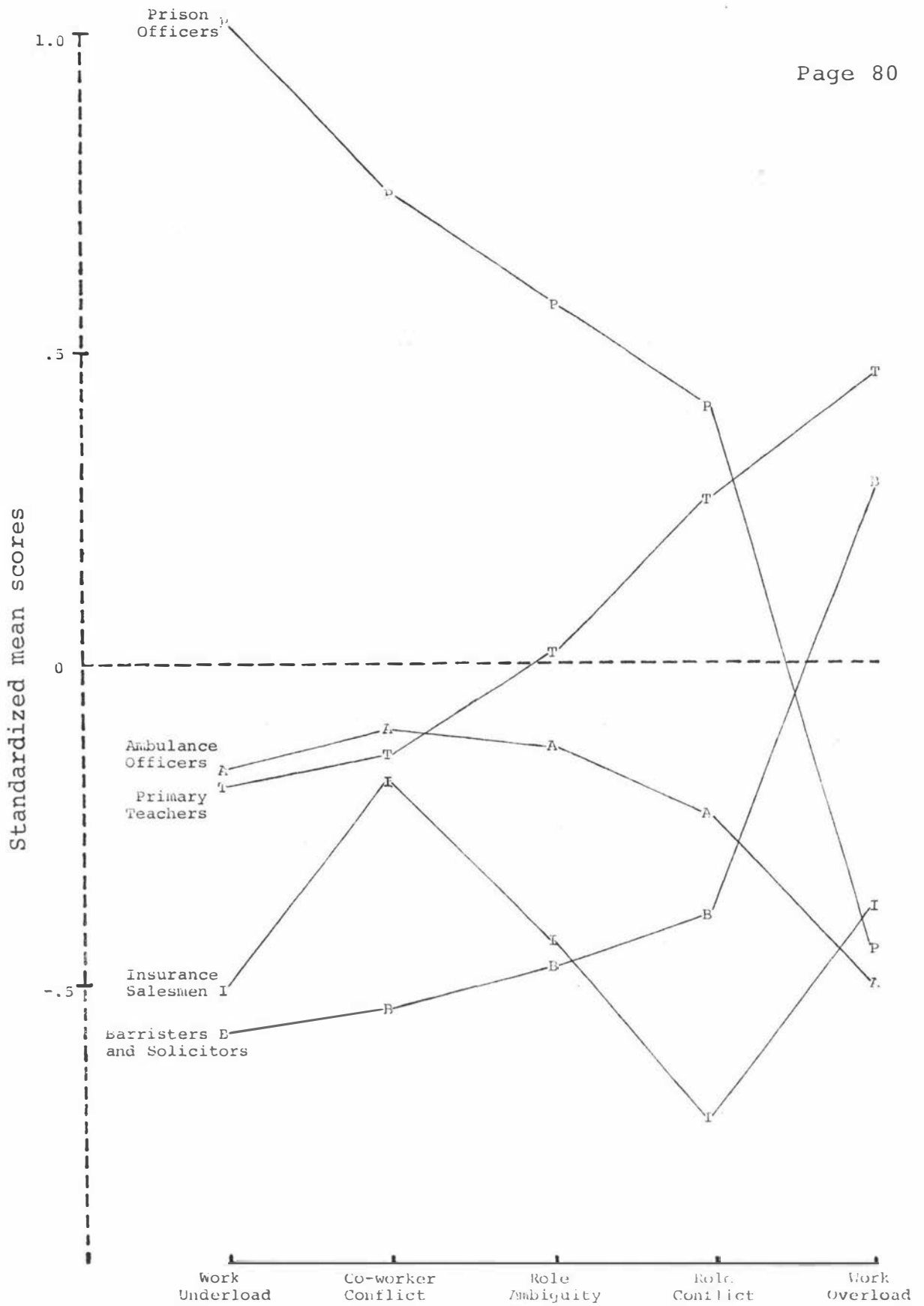


Figure 5.1
 standardized mean scores for those stressors
 differing significantly across occupational groups.

The impact on the family was measured by a total impact measure, and by five subscales derived from factor analytic techniques (Weyer and Hodapp, 1975). These five subscales measured levels of disruption, effects on the children, relationships with spouse, requirements to relocate, and public behaviour. Effects on marital health were measured by two variables, and effects on psychological health by one variable. This resulted in eighteen measures, nine assessing the husband's perception and nine the wife's.

Analyses of variance for the nine measures assessing the husband's perception revealed that six of the measures varied significantly as a function of occupational group. The job incumbent's assessment revealed significant differences in the total impact ($F(4,254)=11.26, p<.01$), the level of disruption ($F(4,270)=19.55, p<.01$), effects on the children ($F(4,262)=10.44, p<.01$), relationships with spouse ($F(4,272)=4.29, p<.01$), requirements to relocate ($F(4,271)=11.17, p<.01$), and public behaviour ($F(4,264)=12.35, p<.01$). The effects on marital relationships were assessed by two measures but no significant differences among occupations were found. The two measures were marital stress ($F(4,276)=1.18, p>.05$) and marital communication ($F(4,273)=1.17, p>.05$). In addition, no differences in psychological health, as measured by the GHQ12, were found ($F(4,276)<1.0$).

The mean scores and their standard deviations for these nine measures of stress effects were calculated for the five occupational groups, and are presented in Table 5.2. To isolate significant differences between these means, a posteriori multiple comparisons (Scheffe, 1959) were again undertaken. Figure 5.2 shows the relationship between the occupational groups for each of the

Table 5.2

Means and standard deviations for measures of husbands' perceptions of the effects of stress for five occupational groups

	Prison Officers (n=62)	Insurance Salesmen (n=41)	Barristers Solicitors (n=43)	Ambulance Officers (n=34)	Primary Teachers (n=107)
<u>Effects on the family:</u>					
Total impact	154.14 (34.43)	114.05 (27.61)	123.59 (32.26)	130.31 (25.81)	129.63 (31.35)
Level of disruption	57.19 (14.87)	38.95 (10.82)	40.43 (12.51)	46.80 (15.48)	40.59 (12.46)
Effects on children	32.68 (8.80)	23.45 (6.39)	27.24 (8.34)	26.88 (6.71)	25.65 (7.68)
Relationship spouse	33.50 (8.09)	26.60 (8.38)	31.76 (8.93)	31.00 (8.59)	31.04 (8.09)
Required to move	9.42 (3.35)	7.18 (2.48)	6.30 (2.60)	6.87 (2.93)	9.50 (3.92)
Public behaviour	13.79 (3.57)	10.73 (3.26)	11.05 (3.03)	11.89 (2.64)	14.56 (4.40)
<u>Marital adjustment:</u>					
Marital stress	34.37 (7.28)	32.18 (6.30)	31.69 (7.00)	33.41 (6.85)	32.38 (7.88)
Marital communication	48.34 (8.45)	50.97 (7.71)	51.26 (6.90)	49.03 (6.22)	49.41 (8.78)
<u>Psychological health:</u>					
GHQ12 (Husband)	11.71 (5.38)	11.03 (6.29)	10.79 (4.11)	11.75 (6.18)	12.42 (5.76)

significant measures, presented in standardized mean scores. For the total impact on the family measure, prison officers were significantly higher than all other groups. On the public behaviour measure, teachers were significantly higher than every group except prison officers, while prison officers were significantly higher than barristers and solicitors and salesmen. For requirements to relocate, prison officers were significantly higher than every other group

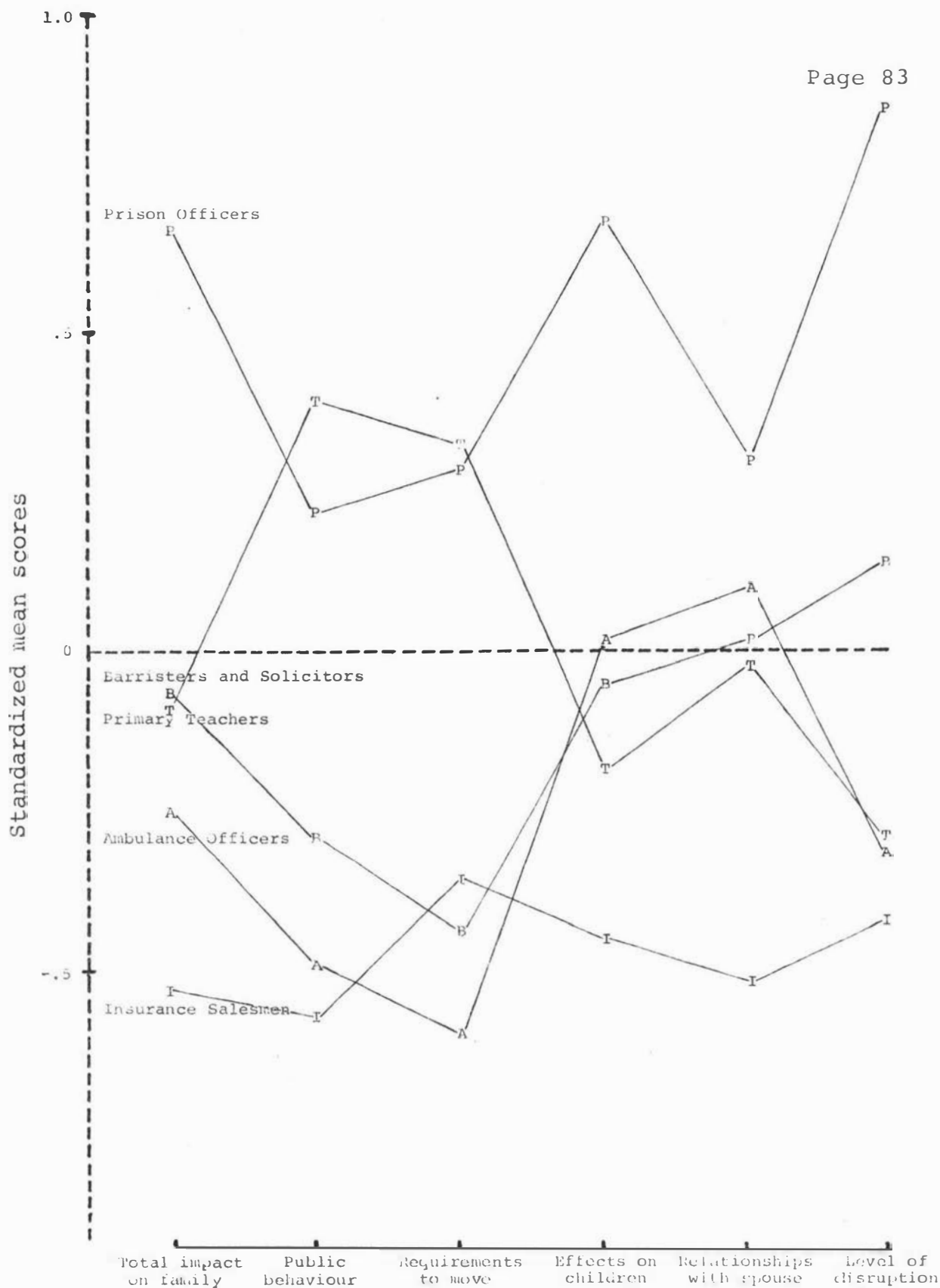


Figure 5.2
 Standardized mean scores for the husband's perception of impact on the family scales differing significantly across occupational groups.

except teachers, while teachers were also significantly higher than every other group except prison officers. Prison officers were significantly higher than the other four groups on the effects on the children measure, and significantly higher than salesmen on the relationships with spouse measure. For the level of disruption measure, prison officers were significantly higher than all other groups.

For the nine measures assessing the wife's perception, four of the variables varied significantly as a function of occupational group. The assessment by the job incumbent's spouse revealed significant differences in the level of disruption ($F(4,276)=11.52$, $p<.01$), requirements to relocate ($F(4,273)=5.85$, $p<.01$), and public behaviour ($F(4,264)=7.93$, $p<.01$). Analysis of the effects on psychological health found significant occupational differences in the wife's score ($F(4,283)=3.23$, $p<.05$). The remaining measures, total impact ($F(4,257)=2.29$, $p>.05$), effects on the children ($F(4,262)<1.0$), and relationship with spouse ($F(4,275)=2.18$, $p>.05$) failed to show significant differences. The effects on marital relationships were assessed by two measures but no significant differences among occupational groups were found. The two measures were marital stress ($F(4,279)<1.0$) and marital communication ($F(4,282)<1.0$).

The mean scores and their standard deviations for these nine measures of stress effects from the wife's perception are presented in Table 5.3. To isolate significant differences among the means, a posteriori multiple comparisons were undertaken. Figure 5.3 shows the mean scores in standardized form for the three significant impact on the family measures, and the psychological health measure. For the level of disruption measure prison officers were significantly higher

Table 5.3

Means and standard deviations for measures of wives' perceptions of the effects of stress for five occupational groups

	Prison Officers (n=62)	Insurance Salesmen (n=41)	Barristers Solicitors (n=43)	Ambulance Officers (n=34)	Primary Teachers (n=107)
<u>Effects on the family:</u>					
Total impact	133.63 (39.63)	113.95 (42.52)	126.10 (30.63)	129.36 (30.17)	118.94 (38.31)
Level of disruption	49.45 (15.96)	38.70 (16.75)	41.83 (13.58)	48.00 (14.41)	35.27 (12.91)
Effects on children	26.23 (11.81)	24.21 (10.93)	27.54 (8.69)	25.12 (7.75)	24.16 (10.13)
Relationship spouse	30.81 (9.86)	27.28 (11.26)	32.36 (9.31)	32.30 (9.53)	28.66 (10.50)
Required to move	7.95 (3.28)	7.08 (3.10)	5.85 (2.41)	7.33 (3.39)	8.73 (3.91)
Public behaviour	11.19 (3.47)	10.41 (3.73)	10.43 (2.65)	10.59 (2.93)	13.47 (4.84)
<u>Marital adjustment:</u>					
Marital stress	34.69 (7.52)	33.97 (7.82)	34.33 (6.35)	34.94 (7.05)	32.99 (7.99)
Marital communication	51.44 (9.87)	51.34 (10.41)	52.07 (9.04)	51.40 (9.41)	53.14 (8.06)
<u>Psychological health:</u>					
GHQ12 (Wife)	11.52 (5.99)	13.27 (7.45)	11.74 (5.65)	15.00 (6.65)	11.02 (5.93)

than both teachers and salesmen, while ambulance officers were significantly higher than teachers. For requirements to relocate, teachers were significantly higher than barristers and solicitors, while for public behaviour, teachers were significantly higher than all the other groups. For the GHQ12, the wives of ambulance officers were significantly higher than the wives of teachers.

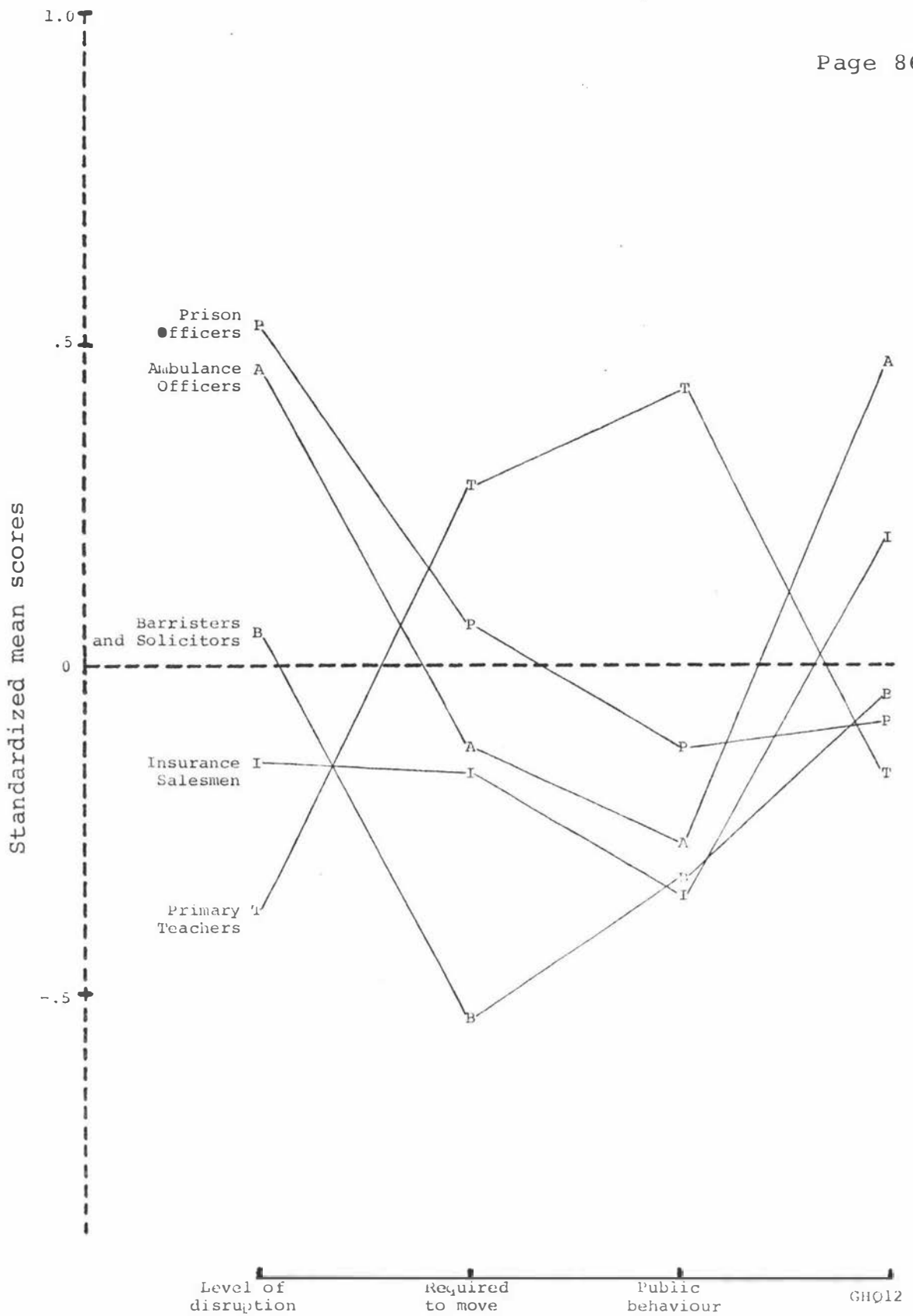


Figure 5.3
 Standardized mean scores for the stress effects
 measures for wives differing significantly
 across occupational groups.

5.1.3 Results for moderator variables

A method of analysis similar to that undertaken in the previous sections was continued for the remaining major variable group, the moderators of stress. Levels of social support across the occupational groups were assessed using the nine variables outlined in Section 4.5.3. The scores on these variables were analysed and three of the variables showed significant differences. The significant variables were social support by friends ($F(4,278)=4.75, p<.01$), social support by supervisor ($F(4,255)=5.90, p<.01$), and social support by co-workers ($F(4,274)=5.81, p<.01$). The six variables which showed no significant differences were social support by wife ($F(4,274)<1.0$), social support by neighbours ($F(4,277)=2.57, p>.05$), social support by relations ($F(4,280)=3.22, p>.05$), tangible social assistance ($F(4,273)=1.06, p>.05$), willingness to seek social support ($F(4,276)=1.21, p>.05$), and global feelings of social support ($F(4,275)<1.0$). Significant differences were found for the personality variable of locus of control ($F(4,277)=4.01, p<.01$).

The mean scores and standard deviations for these variables were calculated and are presented in Table 5.4. Scheffe comparisons were performed to isolate significant differences for these means. Figure 5.4 shows the mean scores in standardized form for the three social support measures and the one personality measure that showed significant differences among the occupational groups. For social support by supervisor, salesmen and teachers were significantly higher than prison officers. Teachers and barristers and solicitors were significantly higher than prison officers in social support by workmates, while on the social support by friends measure, teachers were significantly higher than prison officers. For locus of control,

Table 5.4

Means and standard deviations for measures of moderator variables for five occupational groups.

	Prison Officers (n=62)	Insurance Salesmen (n=41)	Barristers Solicitors (n=43)	Ambulance Officers (n=34)	Primary Teachers (n=107)
<u>Social support:</u>					
Wife	49.48 (6.45)	49.78 (5.41)	49.60 (6.33)	49.85 (4.34)	49.64 (6.29)
Friends	36.24 (7.52)	36.78 (8.95)	40.07 (6.58)	39.15 (9.48)	41.13 (7.66)
Neighbours	29.21 (8.90)	26.18 (7.67)	27.29 (7.36)	27.97 (10.19)	30.77 (9.15)
Relations	36.92 (10.52)	36.56 (8.69)	39.26 (8.03)	40.09 (9.14)	41.11 (8.07)
Supervisor	30.68 (8.45)	39.79 (9.37)	34.92 (9.69)	36.29 (10.00)	35.47 (9.41)
Co-workers	30.82 (7.54)	34.30 (9.21)	36.47 (7.39)	35.31 (7.62)	36.59 (7.74)
Tangible assistance	7.33 (2.09)	8.02 (1.90)	7.93 (1.75)	7.56 (1.76)	7.85 (1.87)
Willingness to seek	5.05 (2.47)	5.34 (2.25)	5.14 (2.52)	5.31 (2.22)	5.76 (2.29)
Global feelings	20.34 (4.40)	21.44 (3.78)	21.63 (4.49)	21.47 (4.70)	21.10 (5.41)
<u>Personality:</u>					
Locus of control	10.97 (4.22)	8.22 (3.13)	8.69 (4.33)	10.47 (3.31)	9.85 (4.11)

prison officers were significantly higher (more externally orientated) than salesmen.

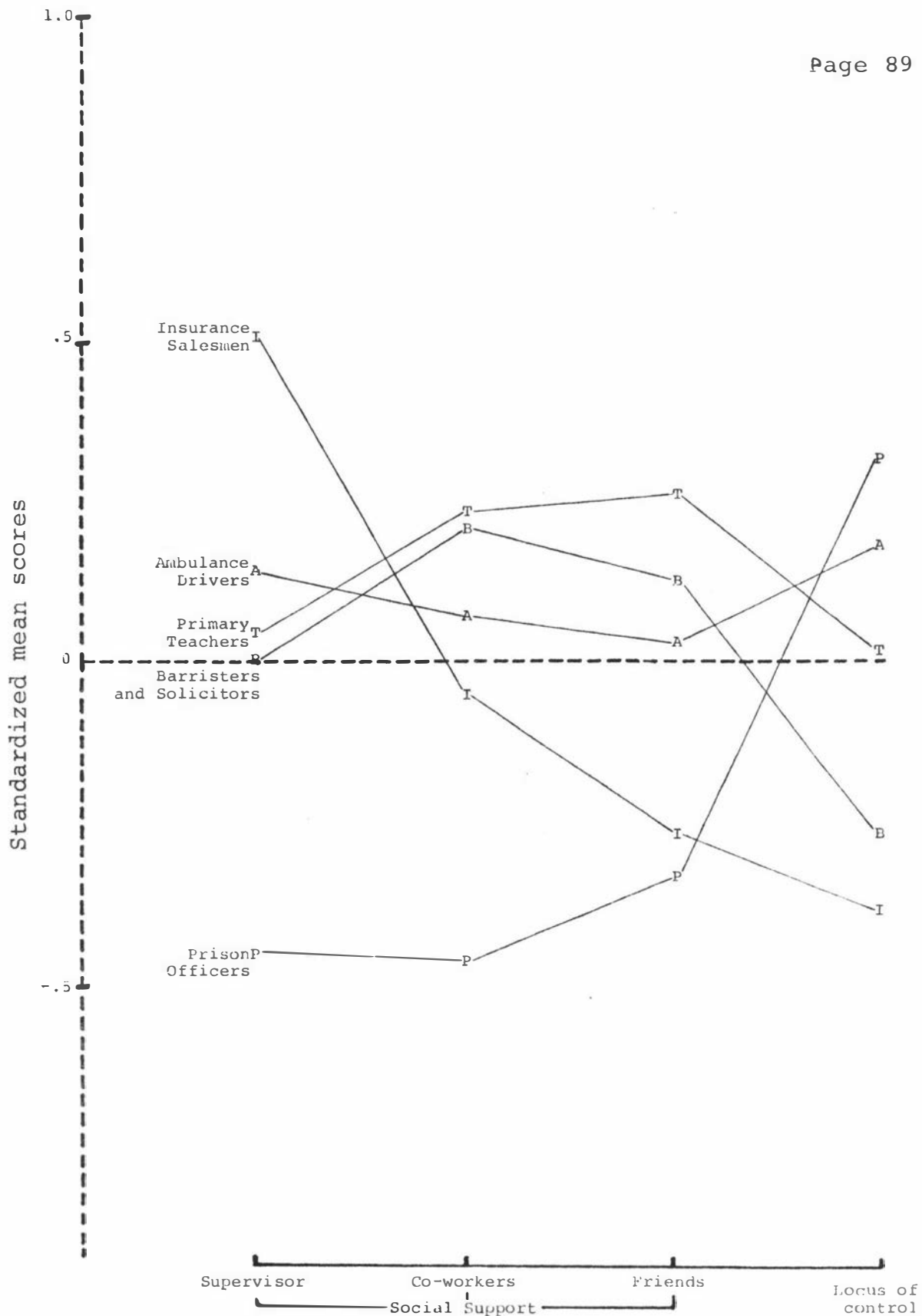


Figure 5.4
 Standardized mean scores for moderator variables differing significantly across occupational groups.

5.1.4 Summary

The results obtained in the above comparisons of occupational groups for levels of occupational and life stress suggested that prison officers perceived their job as being more stressful than the other occupations on four of the dimensions, those of role conflict, role ambiguity, work underload and co-worker conflict. Teachers also perceived their job as more stressful than other occupations for the two stressors of role conflict and work overload. In addition, barristers and solicitors perceived their occupation as more stressful in the area of work overload. Both ambulance officers and insurance salesmen were relatively low across all areas of occupational stress. A comparison of levels of life event stress showed ambulance officers scoring the highest in this area.

In comparing the effects of these stressors across the occupational groups, only the husbands' perceptions of impact on the family showed significant differences. The results indicated that prison officers were consistently high in their assessment of the impact of their occupation on the family, while insurance salesmen were consistently low. Both ambulance officers and barristers and solicitors tended to obtain similar patterns, with ambulance officers being generally higher. Primary school teachers showed more variability in their results, being high in some areas such as public behaviour and requirements to move, and low in other areas such as level of disruption and effects on the children.

For the comparison of the wives' perception of the impact on the family across the occupational groups, only three scales differed significantly. There were high levels of variation between the scales, with teachers' wives scoring high on public behaviour and

requirements to move, and low on the overall level of disruption. Prison officers' and ambulance officers' wives had similar patterns, being high for overall disruption and low for requirements to move and public behaviour. Both insurance salesmen's and barristers and solicitors' wives tended to be low over all the measures. As well, a significant difference on the wives' GHQ scores emerged, with ambulance officers' wives scoring higher than the other four groups.

Finally, a comparison of moderator variables across the occupational groups showed significant differences in three of the social support variables. These were support by supervisor, co-workers and friends. Support by co-workers and support by friends tended to be at similar levels for all groups, suggesting that the job incumbents may see these two as basically the same. Prison officers were the lowest group for both these categories, as well as the lowest for support by supervisor. Insurance salesmen rated the perceived level of social support from their supervisor as very high, but the level of support from friends was low. For locus of control, the results showed that prison officers tended towards external orientation and insurance salesmen tended towards internal orientation.

5.2 Effects of stress for five occupational groups

The relationships between the occupational and life stressors of the husband and both the husband's and wife's perceptions of impact on the family, marital adjustment, and psychological health were analysed by correlational and multiple regression techniques (Billings and Moos, 1982; Burke, Weir and DuWors, 1980a) for each of the occupational groups. Initially, simple correlations between the nine

stressors and the eight variables measuring impact on the family, marital adjustment, and psychological health were calculated. The eight criterion variables were obtained from the impact on the family scale, measures of marital stress and marital communication, and the GHQ12, from both the husband's and wife's perception (See Section 4.5.2 for a detailed description). Following this, a true stepwise multiple regression analysis was carried out, regressing each of the eight criterion variables, in turn, onto the occupational and life stressors of the husband (Hull and Nie, 1981). This approach was followed for each of the five occupational groups.

5.2.1 Results for prison officers

Table 5.5 shows the correlations between the husband's occupational and life stressors and the variables measuring impact on the family, marital adjustment, and psychological health, for the prison officer occupational group.

Three of the stressors were significantly correlated with the husband's perception of total impact on the family. A stepwise multiple regression analysis (Hull and Nie, 1981) indicated that two of these were significant predictors ($F(2,59)=23.97, p<.01, R^2=.45$), job pressure ($B=.47$) and lack of free time ($B=.39$). Both of these stressors were significantly correlated with the wife's perception of the total impact on the family, and were also significant predictors in a regression analysis. The stressors were job pressure ($B=.30$) and lack of free time ($B=.27$) ($F(2,59)=7.39, p<.01, R^2=.20$).

For the marital stress variable, five of the stressors were significantly correlated with the husband's perception, and one with the wife's perception. A stepwise multiple regression analysis (Hull

Table 5.5

Correlations between occupational and life stressors and impact on the family, marital adjustment and psychological health scales for prison officers.

	Impact on family		Marital stress		Marital communication		GHQ12	
	Husb	Wife	Husb	Wife	Husb	Wife	Husb	Wife
<u>Occupational Stressors:</u>								
Role conflict	.33	.19	.40*	.21	-.35*	-.15	.32	-.08
Role ambiguity	.31	.31	.40*	.26	-.33*	-.30	.35*	-.01
Work overload	.28	.00	.27	.11	-.22	-.05	.22	-.14
Work underload	.17	.25	.16	.15	-.20	-.12	.23	.08
Lack of free time	.52*	.33*	.44*	.50*	-.47*	-.32	.40*	.24
Co-worker conflict	.18	.31	.19	.06	-.03	-.12	.40*	-.01
Job pressure	.57*	.36*	.40*	.16	-.43*	-.20	.46*	-.02
<u>Life Events:</u>								
Number positive	-.04	-.12	.00	.03	-.06	.02	-.21	-.24
Number negative	.36*	.12	.45*	.31	-.51*	-.27	.46*	.03

* $p < .01$, two-tailed test

and Nie, 1981) for the husband's perception of marital stress indicated that two of the stressors were significant predictors, number of negative life events ($B = .39$) and role conflict ($B = .33$) ($F(2,59) = 13.19$, $p < .01$, $R^2 = .31$). For the wife's perception, one stressor was significant, lack of free time ($B = .50$, $F(1,60) = 19.87$, $p < .01$, $R^2 = .25$).

Five stressors were also significantly correlated with the husband's perception of marital communication, and three of these were significant predictors as revealed by a stepwise multiple regression analysis ($F(3,58) = 13.26$, $p < .01$, $R^2 = .41$). The stressors were number of negative life events ($B = -.29$), lack of free time ($B = -.30$), and job pressure ($B = -.27$). While none of the stressors were significant (at the .01 level, two-tailed test) for the wife's perception of marital

communication, a stepwise multiple regression analysis revealed one significant predictor, lack of free time ($B = -.32$, $F(1,60) = 6.69$, $p < .05$, $R^2 = .10$).

Five stressors were significantly correlated with the husband's GHQ score, and four stressors were significant predictors as indicated by a stepwise multiple regression analysis. The significant stressors were number of negative life events ($B = .36$), co-worker conflict ($B = .25$), job pressure ($B = .30$), and number of positive life events ($B = -.24$) ($F(4,57) = 11.76$, $p < .01$, $R^2 = .45$). None of the husband's occupational and life stressors were correlated with the wife's GHQ score, and a multiple regression analysis yielded no significant predictors.

5.2.2 Results for insurance salesmen

Table 5.6 shows the correlations between the husband's occupational and life stressors and the variables measuring impact on the family, marital adjustment, and psychological health, for the insurance salesmen group.

All seven occupational stressors were significantly correlated with the husband's perception of total impact on the family. A stepwise multiple regression analysis indicated two of these were significant predictors ($F(2,38) = 21.55$, $p < .01$, $R^2 = .53$). The stressors were role conflict ($B = .44$) and co-worker conflict ($B = .38$). Two stressors correlated significantly with the wife's perception of total impact, one of which was significant in the regression analysis. This was role conflict ($B = .44$, $F(1,39) = 9.49$, $p < .01$, $R^2 = .20$).

Table 5.6

Correlations between occupational and life stressors and impact on the family, marital adjustment and psychological health scales for insurance salesmen.

	Impact on family		Marital stress		Marital communication		GHQ12	
	Husb	Wife	Husb	Wife	Husb	Wife	Husb	Wife
<u>Occupational Stressors:</u>								
Role conflict	.66*	.48*	.26	.35	-.13	-.33	.45*	.21
Role ambiguity	.61*	.18	.40	.41	-.36	-.40	.38	.22
Work overload	.54*	.42*	.14	.23	.01	-.20	.50*	.19
Work underload	.44*	.17	.42*	.34	-.19	-.37	.31	.28
Lack of free time	.44*	.34	.22	.30	-.14	-.22	.38	.27
Co-worker conflict	.63*	.26	.41*	.40	-.11	-.42*	.65*	.15
Job pressure	.65*	.34	.42*	.43*	-.22	-.39	.56*	.13
<u>Life Events:</u>								
Number positive	-.18	-.03	-.37	-.18	.23	.11	-.37	-.14
Number negative	-.11	-.05	-.18	-.11	-.02	-.01	-.09	.02

* $p < .01$, two-tailed test

For the marital stress variables, three stressors were significantly correlated with the husband's perception, and one with the wife's perception. Stepwise multiple regression analysis for the husband's perception of marital stress indicated one significant predictor, that of job pressure ($B = .42$, $F(1,39) = 8.58$, $p < .01$, $R^2 = .18$). Regression analysis for the wife's perception also indicated one significant predictor, job pressure ($B = .43$, $F(1,39) = 8.65$, $p < .01$, $R^2 = .18$).

No stressors were significantly correlated (at the .01 level, two-tailed test) for the husband's perception of marital communication, although multiple regression analysis revealed one significant predictor, role ambiguity ($B = -.36$, $F(1,39) = 5.78$, $p < .01$, $R^2 = .13$). For the wife's perception of marital communication, one

stressor was significant, and was also the only significant predictor in a multiple regression analysis. This was co-worker conflict ($B = -.42$, $F(1,39) = 8.46$, $p < .01$, $R^2 = .18$).

For the husband's GHQ score, four stressors were significantly correlated, and two of these were significant predictors as revealed by a stepwise multiple regression analysis ($F(2,38) = 17.97$, $p < .01$, $R^2 = .49$). The stressors were co-worker conflict ($B = .53$) and work overload ($B = .30$). However, both correlational analysis and multiple regression analysis yielded no significant correlates with the wife's GHQ score.

5.2.3 Results for barristers and solicitors

Table 5.7 shows the correlations between the husband's occupational and life stressors and the variables measuring impact on the family, marital adjustment, and psychological health, for the barristers and solicitors occupational group.

For the husband's perception of total impact on the family, six stressors were significantly correlated, with two of these being significant in a multiple regression analysis ($F(2,40) = 31.68$, $p < .01$, $R^2 = .61$). These were lack of free time ($B = .57$) and job pressure ($B = .35$). Two stressors were significantly correlated with the wife's perception of total impact on the family, and one of these was significant in a regression analysis. This was job pressure ($B = .40$, $F(1,41) = 8.02$, $p < .01$, $R^2 = .16$).

For the marital stress variable, four of the stressors were significantly correlated with the husband's perception, and none with the wife's perception. Multiple regression analysis for the husband's perception of marital stress revealed one significant correlate, work

Table 5.7

Correlations between occupational and life stressors and impact on the family, marital adjustment and psychological health scales for barristers and solicitors.

	Impact on family		Marital stress		Marital communication		GHQ12	
	Husb	Wife	Husb	Wife	Husb	Wife	Husb	Wife
<u>Occupational Stressors:</u>								
Role conflict	.60*	.25	.45*	.10	-.22	-.25	.36	-.25
Role ambiguity	.35	.35	.45	.16	-.22	-.27	-.06	.18
Work overload	.52*	.40*	.29	.04	-.11	-.25	.19	-.14
Work underload	.58*	.19	.51*	.14	-.25	-.39	.33	.14
Lack of free time	.72*	.35	.46*	.25	-.25	-.29	.32	-.01
Co-worker conflict	.49*	.07	.42*	-.05	-.12	-.09	.33	-.15
Job pressure	.60*	.41*	.37	.03	-.15	-.24	.40*	-.27
<u>Life Events:</u>								
Number positive	-.02	.16	-.13	.01	-.10	.00	-.16	.21
Number negative	.14	.08	.20	.33	-.40*	-.18	.07	.13

* $p < .01$, two-tailed test

underload ($B = .51$, $F(1,41) = 14.14$, $p < .01$, $R^2 = .26$). For the wife's perception, one stressor was significant, the number of negative life events ($B = .33$, $F(1,41) = 4.91$, $R^2 = .11$).

For the marital communication variables, one stressor was significantly correlated with the husband's perception, and none with the wife's perception. Multiple regression analysis for the husband's perception of marital communication showed one significant predictor, number of negative life events ($B = -.40$, $F(1,41) = 7.91$, $p < .01$, $R^2 = .16$), while for the wife's perception, one predictor was significant, work underload ($B = -.39$, $F(1,41) = 7.16$, $p < .05$, $R^2 = .15$).

Only one stressor was significantly correlated with the husband's GHQ score, and was also a significant predictor in a multiple regression analysis. The stressor was job pressure ($B = .40$,

Table 5.8

Correlations between occupational and life stressors and impact on the family, marital adjustment and psychological health scales for ambulance officers.

	Impact on family		Marital stress		Marital communication		GHQ12	
	Husb	Wife	Husb	Wife	Husb	Wife	Husb	Wife
<u>Occupational Stressors:</u>								
Role conflict	.30	.02	.10	-.01	-.33	-.37	.42	.06
Role ambiguity	.21	.03	.04	.00	-.33	-.06	.15	.17
Work overload	.35	.29	.14	.22	-.26	-.24	.59*	.13
Work underload	.15	-.22	.04	-.31	-.20	.40	.15	-.45
Lack of free time	.63*	.35	.29	.01	-.29	-.10	.53*	.11
Co-worker conflict	.37	.38	.31	.24	-.24	.02	.18	.11
Job pressure	.41	.20	.33	.16	-.35	-.18	.78*	-.01
<u>Life Events:</u>								
Number positive	-.29	-.31	-.21	-.21	.23	.15	.08	-.33
Number negative	.02	.08	.26	.12	-.28	-.01	.50*	-.16

* $p < .01$, two-tailed test

$F(1,41)=7.76$, $p < .01$, $R^2=.16$). None of the husband's occupational and life stressors were significantly correlated with the wife's GHQ score, and a multiple regression analysis yielded no significant predictors.

5.2.4 Results for ambulance officers

Table 5.8 shows the correlations between the husband's occupational and life stressors and the variables measuring impact on the family, marital adjustment, and psychological health, for the ambulance officers.

For the husband's perception of the total impact of his job on the family, one stressor correlated significantly. A multiple regression analysis revealed two significant predictors, lack of free

time ($\underline{B}=.48$) and co-worker conflict ($\underline{B}=.33$) ($F(2,32)=8.14$, $p<.01$, $R^2=.34$). None of the husband's occupational and life stressors were significantly correlated with the wife's perception of total impact on the family, and a multiple regression analysis yielded no significant predictors.

For the marital stress variable, no significant correlations and no significant predictors for a multiple regression analysis were found, for either the husband's perception or the wife's.

No stressors were significantly correlated ($p<.01$, two-tailed test) for the husband's perception of marital communication, but a multiple regression analysis yielded one significant predictor, job pressure ($\underline{B}=-.35$, $F(1,33)=4.56$, $p<.05$, $R^2=.12$). Similarly, no stressors were significantly correlated with the wife's perception of marital communication, although multiple regression analysis produced one significant predictor, work underload ($\underline{B}=.37$, $F(1,33)=5.31$, $p<.05$, $R^2=.14$).

For the husband's GHQ score, four stressors were significantly correlated, and a multiple regression analysis showed that two of these were significant predictors ($F(2,32)=28.56$, $p<.01$, $R^2=.64$). The stressors were job pressure ($\underline{B}=.67$) and number of negative life events ($\underline{B}=.25$). Although none of the husband's occupational and life stressors were significantly correlated (at the .01 level, two-tailed test) with the wife's GHQ score, multiple regression analysis revealed two significant predictors ($F(2,32)=7.43$, $p<.01$, $R^2=.32$). These were work underload ($\underline{B}=-.58$) and role ambiguity ($\underline{B}=.39$).

Table 5.9

Correlations between occupational and life stressors and impact on the family, marital adjustment and psychological health scales for primary school teachers.

	Impact on family		Marital stress		Marital communication		GHQ12	
	Husb	Wife	Husb	Wife	Husb	Wife	Husb	Wife
<u>Occupational Stressors:</u>								
Role conflict	.54*	.18	.34*	.04	-.40*	-.17	.28*	.14
Role ambiguity	.50*	.35*	.46*	.21	-.42*	-.34*	.30*	.06
Work overload	.44*	.16	.22	-.03	-.23	-.10	.37*	.22
Work underload	.23	.08	.41*	.09	-.46*	-.15	.26*	.02
Lack of free time	.57*	.27*	.32*	.11	-.29*	-.08	.30*	.00
Co-worker conflict	.28*	.06	.43*	.18	-.33*	-.23	.24	-.01
Job pressure	.51*	.24	.28*	.09	-.26*	-.18	.39*	.26*
<u>Life Events:</u>								
Number positive	-.01	.08	.06	.03	.01	.00	-.14	.02
Number negative	.33*	.15	.28*	.13	-.34*	-.08	.32*	.03

* $p < .01$, two-tailed test

5.2.5 Results for primary school teachers

Table 5.9 shows the correlations between the husband's occupational and life stressors and the variables measuring impact on the family, marital adjustment, and psychological health, for primary school teachers.

For the husband's perception of the total impact of his job on the family, seven stressors were significantly correlated. A stepwise multiple regression analysis resulted in three significant predictors ($F(2, 104) = 33.64$, $p < .01$, $R^2 = .39$). The stressors were lack of free time ($B = .34$), role conflict ($B = .28$), and role ambiguity ($B = .21$). Two stressors were significantly correlated with the wife's perception of total impact, and one of these was significant in a regression analysis, role ambiguity ($B = .34$, $F(1, 105) = 14.02$, $p < .01$, $R^2 = .12$).

Seven stressors were significantly correlated with the husband's perception of marital stress and three of these were significant predictors as revealed by a multiple regression analysis ($F(3,103)=12.75$, $p<.01$, $R^2=.27$). The significant stressors were role ambiguity ($B=.312$), work underload ($B=.22$), and number of negative life events ($B=.18$). No stressors were significantly correlated with the wife's perception of marital stress, although multiple regression analysis yielded one significant predictor, role ambiguity ($B=.21$, $F(1,105)=4.80$, $p<.05$, $R^2=.04$).

For the husband's perception of marital communication, seven stressors were significantly correlated, and three of these were significant predictors as indicated by multiple regression analysis ($F(3,103)=14.45$, $p<.01$, $R=.30$). The stressors were work underload ($B=-.28$), number of negative life events ($B=-.22$), and role ambiguity ($B=-.23$). For the wife's perception of marital communication, one stressor correlated significantly and was also a significant predictor in a multiple regression analysis, that of role ambiguity ($B=-.33$, $F(3,103)=13.08$, $p<.01$, $R^2=.11$).

For the husband's GHQ score, seven stressors correlated significantly, while multiple regression analysis indicated three significant predictors, job pressure ($B=.32$), number of negative life events ($B=.27$), and number of positive life events ($B=-.19$) ($F(3,103)=10.53$, $p<.01$, $R^2=.23$). For the wife's GHQ score, one stressor correlated significantly and was a significant predictor in a multiple regression analysis, that of job pressure ($B=.26$, $F(1,105)=7.56$, $p<.01$, $R^2=.07$).

5.2.6 Summary

Considering the results for each of the occupational groups for the impact on the family scales showed differences between the groups, as well as differences between the husband's and wife's perceptions. For prison officers, job pressure and lack of free time were significant independent correlates with the total impact scale, while for the prison officers' wives, job pressure and lack of free time correlated significantly with the impact scale. For insurance salesmen, role conflict and co-worker conflict correlated significantly with the impact on the family scale, and for their wives, role conflict was the significant correlate. For barristers and solicitors, lack of free time and job pressure correlated significantly with the impact on the family, while for the wives job pressure was the significant correlate. For ambulance officers, both lack of free time and and co-worker conflict were significant, but there were no significant correlations between the husband's stressors and the ambulance officers wives' perception of impact on the family. Finally, for teachers, the three stressors of role ambiguity, lack of free time, and role conflict correlated with the impact on the family, while for teachers' wives, the only significant correlate was that of role ambiguity.

An overview of the results for each of the occupational groups for the marital adjustment scales showed that, for prison officers, the number of negative life events correlated with both marital adjustment scales. In addition, role conflict correlated with marital stress and lack of free time and job pressure correlated with marital communication. For prison officers' wives, lack of free time was the only significant correlate, with both marital adjustment scales. For

salesmen, job pressure correlated with marital stress and role ambiguity with marital communication, while for the salesmen's wives, job pressure correlated with marital stress and co-worker conflict with marital communication.

For barristers and solicitors, work underload correlated with marital stress and the number of negative life events correlated with marital communication. For the wives the correlations were reversed, with the number of negative life events correlating with marital stress and work underload correlating with marital communication. For ambulance officers, the only correlate was between job pressure and marital communication, while for the wives work underload correlated with marital communication. There were no stressors correlating with the marital stress scale for either the husband or his wife. For primary school teachers, three stressors correlated significantly with both marital adjustment scales. These stressors were role ambiguity, work underload, and the number of negative life events. For teachers' wives role ambiguity correlated with both marital stress and marital communication.

The results for each of the occupational groups for the psychological health scale showed job pressure correlating significantly with the husband's GHQ12 score in all of the occupational groups except insurance salesmen. Co-worker conflict was correlated for prison officers and insurance salesmen, and work overload correlated with the husband's GHQ12 score for salesmen. Life events were an important predictor of the husband's psychological health for three of the occupational groups, namely prison officers, ambulance officers and primary school teachers, with prison officers and teachers including both the number of negative life events and the

number of positive events (inversely correlated).

Only two of the occupational groups showed any correlation between the husband's occupational stressors and the wife's level of psychological health, as assessed by the GHQ12. The correlations were between work underload, role ambiguity and the wife's GHQ12 for ambulance officers, and between job pressure and the wife's GHQ12 for primary teachers.

Looking at the overall pattern of stressors summarized above, it becomes clear that a major stressor related to the husband's perception of impact on the family is the interference with the family measure of lack of free time. This was a major stressor for three of the occupational groups, prison officers, barristers and solicitors, and ambulance officers. All three groups appear to require longer hours of work, as well as the additional factor of shift work in the case of prison officers and ambulance officers. The absence of teachers from this group may be due to scores on this measure being lowered because of the length of holidays available. The second major stressor relating to the husband's perception of impact on the family is in the area of organizational roles. This was particularly important for insurance salesmen and teachers. Finally, relationships with co-workers was an additional major stressor relating to impact on the family for ambulance officers.

When considering the wives' perceptions of impact on the family, the non-specific area of job pressure appeared as the most important, especially for prison officers' and barristers and solicitors' wives. The effects of organizational roles were also important, particularly for salesmen and teachers' wives, while for ambulance officers' wives, the lack of free time had an important effect on the impact on the

family.

The overall pattern of these results suggested that the job qualities and organizational role stressors were the major occupational stressors effecting the husband's perception of the husband's and wife's marital relationship. Both relationships at work and the interference with the family measure of lack of free time were not seen as effecting marital relationships to the same extent. The results also suggested that the husband's level of life event stress was a significant stressor effecting marital relationships. However, the wives' perceptions of the effects on marital relationships of the husbands' occupation was not as clear, with different occupations tending to emphasize different classes of stressors. Prison officers' wives considered the interference aspect important, and teachers' wives were concerned about aspects of organizational role. Salesmen's wives considered relationships with co-workers as most important, while both barristers and solicitors' and ambulance officers' wives were concerned with job qualities. Finally, for the levels of psychological health, the two important areas of stressors were the life events stressors and the nonspecific measure of job pressure.

SECTION 6

RESULTS II: INTERACTIONS BETWEEN VARIABLES

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To evaluate the interactions between all of the variables involved in the study, the data obtained from the subjects in each of the five occupational groups was combined. The purpose of this section of the analysis was to assess the effects of the various stressor and moderator variables on the five separate criterion variables (see Section 4.5 for a detailed description of these variables). The criterion variables assessed the perceived impact of the husband's job on the family, the perceived impact of the wife's job on the family, the amount of marital stress, the level of marital communication, and the levels of psychological health. For each criterion variable analysed, two distinct variables were involved. The first assessed the husband's perception of the criterion variable, and the second assessed the wife's perception of the criterion variable.

The relationship between each type of criterion variable and the stressor and moderator variables was analysed for the sample of all subjects. The data was analysed in three stages, all involving correlational and regression analysis techniques (Kerlinger and Pedhazur, 1973; Nie et al., 1975). A description of this analysis procedure follows, in Section 6.1.

6.1 Method of analysis

Initially, correlations between all of the stress sources (covering the husband's occupational and life event stressors, and the wife's occupational, life event, and housework stressors), and the appropriate criterion variable, from both the husband's and wife's perception, were calculated. These correlations were calculated to indicate possible significant relationships between the appropriate criterion variable and the stress sources.

Following this correlational analysis, two stepwise multiple regression analyses were carried out (Hull and Nie, 1981). The first regressed all stress sources onto the husband's perception of the appropriate criterion variable, and the second regressed all the stress sources onto the wife's perception of the criterion variable. This procedure was adopted to determine the significant individual effects of the stressors on the criterion variable under consideration (Burke, Weir and DuWors, 1980a).

The second stage of the analysis investigated the relationship between the moderator variables (covering the husband's level of social support and locus of control), and the wife's level of social support and locus of control) and the appropriate criterion variable, from both the husband's and the wife's perception. The type of analysis undertaken was the same as that utilized in the first stage. It involved calculating correlations between the moderator variables and the appropriate criterion variable. These correlations were calculated to indicate possible significant relationships between the criterion variable under consideration and the moderators of the stress sources. Two separate stepwise multiple regression analyses were then undertaken. The first regressed all the moderator variables

onto the husband's perception of the criterion variable, and the second regressed all the moderator variables onto the wife's perception of the criterion variable.

The third stage of the analysis involved determining the effect on the criterion variable of the various categories of stress source variables. The stress source variables were divided into five categories based on the area of the environment that they were assessing. The categories were: the husband's occupational stressors, the husband's life event stressors, the wife's occupational stressors, the wife's life event stressors, and the wife's housework stressors. To determine the contribution of each of these categories to the level of explained variance in the criterion variable, a series of all subsets regression was undertaken (Kerlinger and Pedhazur, 1973). This technique involved entering the five categories of stressors into the equation as separate blocks in all possible combinations (Cherry, 1978). The analysis was then repeated, with the block accounting for the largest proportion of the variance entered first, and the remaining four categories entered in all possible combinations. The block from the remaining four categories that accounted for the largest proportion of the variance was then entered as the second category. The whole procedure was repeated until all five blocks of stressors were entered into the equation in the best sequence as determined by the analysis.

After this regression equation had been constructed, it was further extended by including the moderator variables, to determine their effect on the criterion variable. The level of effect was obtained by entering the moderator variables into the equation, using a stepwise procedure, after the effects of the five categories of

stressors outlined above had been taken into account (Hull and Nie, 1981). This method allowed the level of contribution to the amount of explained variance by the significant moderator variables to be assessed. After the significant moderators had been determined, the remaining moderators were entered as a block to determine their overall effect on the amount of explained variance. The regression equation now had all forty-two stressor and moderator variables, with indications of the importance of various groups of them determined by the amount of explained variance. This stage of the analysis was also undertaken twice, once to determine effects on the husband's perception of the criterion variable, and once to determine effects on the wife's perception of the criterion variable.

6.2 Results for all criterion variables

The analysis covering all three stages, as outlined in the previous section, was repeated for all five criterion variables, covering the impact of the husband's job, the impact of the wife's job, marital stress, marital communication, and psychological health. The results of the analysis of these variables follows in the next five subsections (Sections 6.2.1 to 6.2.5).

6.2.1 Perceived impact of the husband's job on the family

The method of analysis, as outlined in Section 6.1, was undertaken with the variable measuring the impact of the husband's job on the family, as perceived by both the husband and wife. Table 6.1 shows the results of Stage 1 of the analysis. The table presents the correlations between the twenty-two measures of stressors derived from the five categories as outlined above, and the impact of the husband's

Table 6.1

Correlations between occupational and life stressors and husband's job impact on the family for husband and wife.

	Husband's perception of his impact	Wife's perception of husband's impact
<u>Husband's Occupational Stressors:</u>		
Role conflict	.54*	.23*
Role ambiguity	.49*	.31*
Work overload	.30*	.14
Work underload	.42*	.18*
Lack of free time	.58*	.33*
Co-worker conflict	.44*	.21*
Job pressure	.53*	.30*
<u>Husband's Life Events:</u>		
Number positive	-.06	-.04
Number negative	.28*	.14
<u>Wife's Occupational Stressors:</u>		
Role conflict	.23*	.22*
Role ambiguity	.21*	.23*
Work overload	.14	.16
Work underload	.15	.09
Lack of free time	.30*	.36*
Co-worker conflict	.22*	.22*
Job pressure	.21*	.25*
<u>Wife's Life Events:</u>		
Number positive	.01	.07
Number negative	.18*	.24*
<u>Wife's Housework Stressors:</u>		
Boredom	.17*	.15*
Physical effort	.21*	.41*
Lack of free time	.23*	.31*
Task overload	.04	.20*

* $p < .01$, two-tailed test

job on the family, as perceived by both the husband and wife.

Seventeen of the total of twenty-two stress measures were significantly correlated with the husband's perception of his job's impact on the family. These significant correlations came from all five categories of stressors. All of the husband's occupational stressors were significantly correlated with the criterion variable, as were five of the wife's occupational stressors. Both the husband's

and wife's number of negative life events were significantly correlated with the husband's perception of his job's impact on the family. In addition, three of the wife's measures of housework stress showed significant correlations. The directions of the correlations showed that for all significant correlations, an increase in the level of perceived stress was associated with an increase in the level of perceived impact on the family.

To determine which of these measures exerted significant independent effects on the husband's perception of his job's impact on the family, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This indicated that five of the stress measures were significant independent predictors. These measures were the husband's lack of free time ($B=.35$), the husband's role conflict ($B=.17$), the husband's job pressure ($B=.25$), the wife's co-worker conflict ($B=.16$), and the husband's co-worker conflict ($B=.16$) ($F(5,144)=32.47$, $p<.01$, $R^2=.53$).

Table 6.1 also shows the correlations between the measures of stress and the wife's perception of the impact of her husband's job. The results showed sixteen significant correlations, covering four of the five categories of stressors. Six of the husband's occupational stressors were significantly correlated with the criterion variable, as were five of the wife's occupational stressors. In addition, all of the wife's measures of housework stress and the number of negative life events for the wife showed significant correlations with the criterion variable. For all significant correlations, an increase in perceived stress was associated with an increase in the perceived level of impact on the family.

To determine which of these measures exerted significant independent effects on the wife's perception of her husband's job impact, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This indicated that three of the stress measures were significant independent predictors. These measures were the wife's physical effort of housework ($B=.30$), the husband's job pressure ($B=.22$), and the wife's lack of free time as a result of her job ($B=.22$) ($F(3,151)=18.26$, $p<.01$, $R^2=.27$).

Table 6.2 shows the results of Stage 2 of the analysis, as described in Section 6.1. The table presents the correlations between the twenty moderator variables and the husband's job impact on the family, as perceived by both the husband and wife.

Nine of the twenty measures of moderator variables were significantly correlated with the husband's perception of his job's impact on the family. The direction of the correlations showed that in all significant cases, an increase in the level of the moderator variables was associated with a decrease in the level of perceived impact on the family. Eight of the measures related to the husband's perceived levels of social support, and one measure related to the wife's perceived level of social support.

Stepwise multiple regression analysis was undertaken to determine which of these measures exerted significant independent effects on the criterion variable (Hull and Nie, 1981). This indicated that one measure was a significant predictor of the husband's perception of impact on the family, the measure of the husband's global feelings of social support ($B=.36$, $F(1,163)=25.05$, $p<.01$, $R^2=.13$).

Table 6.2

Correlations between moderator variables and husband's job impact on the family for husband and wife.

	Husband's perception of his impact	Wife's perception of husband's impact
<u>Husband's Social Support:</u>		
Wife	-.29*	-.25*
Friends	-.32*	-.32*
Neighbours	-.14	-.23*
Relations	-.25*	-.21*
Supervisor	-.24*	-.22*
Co-workers	-.24*	-.26*
Tangible assistance	-.30*	-.27*
Willingness	-.27*	-.28*
Global feelings	-.37*	-.27*
<u>Husband's Personality:</u>		
Locus of control	.09	.00
<u>Wife's Social Support:</u>		
Husband	-.21*	-.35*
Friends	-.11	-.20*
Neighbours	-.06	-.19*
Relations	-.02	-.10
Supervisor	-.09	-.15
Co-workers	-.09	-.13
Tangible assistance	-.10	-.14
Willingness	-.10	-.17*
Global feelings	-.15	-.18*
<u>Wife's Personality:</u>		
Locus of control	-.04	.08

* $p < .01$, two-tailed test

Table 6.2 also shows the correlations between the twenty moderator variables and the wife's perception of her husband's job's impact on the family. The results showed fourteen significant correlations. For all significant correlations, the results indicated that increasing levels of social support were associated with decreasing levels of impact on the family. All nine measures of the husband's perceived levels of social support were significant, as were five of the wife's measures.

Table 6.3

Summary of the regression analysis of the husband's perception of his job's impact on the family onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Husband's occupation	.717	.515	.515	21.51**
Wife's life events	.735	.540	.025	1.08
Wife's housework	.742	.551	.011	<1.0
Husband's life events	.744	.554	.003	<1.0
Wife's life events	.746	.556	.002	<1.0
<u>Moderators:</u>				
Social support by husband	.756	.571	.015	4.35*
Remaining moderators	.783	.613	.042	<1.0
(F=4.04, p<.01)		(** p<.01 * p<.05)		

The measures which exerted significant independent effects on the criterion variable were determined by multiple regression analysis (Hull and Nie, 1981). This analysis indicated two significant predictors of the wife's perception of her husband's job's impact on the family. These were the wife's social support by her husband ($B=-.30$), and the husband's social support by friends ($B=-.25$) ($F(2, 166)=18.98, p<.01, R^2=.19$).

The third stage of the analysis involved building a regression model which incorporated all of the stressor and moderator variables. This third stage was carried out for the husband's perception of the impact of his job on the family, with the results presented in Table 6.3, and for the wife's perception of her husband's job's impact, with the results presented in Table 6.4.

The results presented in Table 6.3 showed that the husband's occupational stressor category was a significant contributor to the percentage of explained variance for the husband's perception of his

her husband (R^2 change=.058, $F(\text{change})=12.41$, $p<.01$). The remaining three categories of stressors and the remaining moderator variables did not contribute significantly to the amount of variance explained. The overall model, using all forty-two variables, was significant ($F=2.25$, $p<.01$, $R^2=.458$).

6.2.2 Perceived impact of the wife's job on the family

The method of analysis, as outlined in Section 6.1, was undertaken with the variable measuring the impact of the wife's job on the family, as perceived by both the wife and husband. Table 6.5 shows the results of Stage 1 of the analysis. The table presents the correlations between the twenty-two measures of stress, derived from the five categories as outlined above, and the impact of the wife's job on the family, as perceived by both the wife and husband.

None of the stressors correlated significantly with the wife's perception of the effects of her job on the family. This finding was supported by the results of the stepwise multiple regression analysis, which also resulted in no significant independent predictors of the criterion variable.

Table 6.5 also shows the correlations between the measures of stress and the husband's perception of the impact of his wife's job on the family. The results showed seventeen significant correlations, covering all five categories of stressors. All seven of the husband's occupational stressors were correlated significantly with the criterion variable, as were five of the wife's occupational stressors. In addition, two of the wife's measures of housework stress and the number of negative life events for both the husband and wife showed significant correlations with the criterion variable. All significant

Table 6.5

Correlations between occupational and life stressors and wife's job impact on the family for wife and husband.

	Wife's perception of her impact	Husband's perception of wife's impact
<u>Husband's Occupational Stressors:</u>		
Role conflict	-.03	.35*
Role ambiguity	-.09	.35*
Work overload	.07	.22*
Work underload	-.04	.43*
Lack of free time	.04	.39*
Co-worker conflict	-.06	.26*
Job pressure	.01	.30*
<u>Husband's Life Events:</u>		
Number positive	.00	.09
Number negative	.01	.25*
<u>Wife's Occupational Stressors:</u>		
Role conflict	.05	.42*
Role ambiguity	-.06	.27*
Work overload	.07	.27*
Work underload	.11	.16
Lack of free time	-.11	.33*
Co-worker conflict	.05	.31*
Job pressure	.14	.37*
<u>Wife's Life Events:</u>		
Number positive	-.03	.01
Number negative	.01	.25*
<u>Wife's Housework Stressors:</u>		
Boredom	-.10	.09
Physical effort	-.03	.28*
Lack of free time	.13	.23*
Task overload	-.13	.21

* $p < .01$, two-tailed test

correlations were in a direction associating higher levels of stress with higher levels of impact on the family.

To determine which of these measures exerted significant independent effects, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This indicated that four of the stress measures were significant independent predictors of the husband's perception of the impact of his wife's job on the family.

Table 6.6

Correlations between moderator variables and wife's job impact on the family for wife and husband.

	Wife's perception of her impact	Husband's perception of wife's impact
<u>Husband's Social Support:</u>		
Wife	.01	-.41*
Friends	.06	-.31*
Neighbours	.08	-.18
Relations	.13	-.27*
Supervisor	.05	-.19
Co-workers	.09	-.27*
Tangible assistance	.03	-.24*
Willingness	.05	-.30*
Global feelings	.02	-.30*
<u>Husband's Personality:</u>		
Locus of control	-.06	.12
<u>Wife's Social Support:</u>		
Husband	.06	-.15
Friends	.11	-.19
Neighbours	.16*	-.15
Relations	.10	-.11
Supervisor	-.05	-.24*
Co-workers	-.05	-.16
Tangible assistance	.09	-.06
Willingness	.14	-.10
Global feelings	.14	-.13
<u>Wife's Personality:</u>		
Locus of control	-.06	.05

* $p < .01$, two-tailed test

These measures were the husband's work underload, ($B = .34$), the wife's role conflict ($B = .32$), the husband's work overload ($B = .17$), and the husband's lack of free time ($B = .16$) ($F(4, 140) = 21.5$, $p < .01$, $R^2 = .38$).

Table 6.6 shows the results of Stage 2 of the analysis, as described in Section 6.1. The table presents the correlations between the twenty moderator variables and the wife's job's impact on the family, as perceived by both the wife and husband.

Only one of the twenty measures of moderator variables was significantly correlated with the wife's perception of the effects of her job on the family. A stepwise multiple regression analysis, undertaken to determine if any other measures exerted significant independent effects, found only social support by neighbours as significant ($B = .16$, $F(1,171) = 4.52$, $p < .05$, $R^2 = .03$). The correlation was in the opposite direction to what would be expected however, with higher levels of support by neighbours being associated with higher levels of disruption of the family. Possible explanations for this could include the perception of need for support leading to further stress, or alternatively, the neighbour offering support which may not be appreciated.

Table 6.6 also shows the correlations between the twenty moderator variables and the husband's perception of his wife's job's impact on the family. The results show eight significant correlations. Seven of the measures of the husband's perceived social support and one measure of the wife's perceived social support were significantly correlated. For all significant correlations, the results indicated that increased levels of social support were associated with decreased levels of impact on the family.

The measures which exerted significant independent effects were determined by multiple regression analysis (Hull and Nie, 1981). This indicated two significant predictors, the husband's social support by his wife ($B = -.36$), and the husband's support by his workmates ($B = -.17$) ($F(2,139) = 16.38$, $p < .01$, $R^2 = .19$).

The third stage of the analysis involved building a regression model which incorporated all the stressor and moderator variables. This third stage was carried out for the wife's perception of the

Table 6.8

Summary of the regression analysis of the husband's perception of the impact of his wife's job on the family onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Husband's occupation	.537	.288	.288	7.75**
Wife's occupation	.645	.416	.128	3.96**
Husband's life events	.651	.424	.008	<1.0
Wife's housework	.659	.434	.010	<1.0
Wife's life events	.664	.441	.007	<1.0
<u>Moderators:</u>				
Social support by wife	.690	.477	.034	7.98**
Wife's social support by supervisor	.703	.495	.018	4.17*
Husband's social support by co-workers	.715	.512	.017	4.07*
Remaining moderators	.749	.561	.049	<1.0
(F=3.01, p<.01)		(** p<.01 * p<.05)		

wife's occupational stressors (R change=.128, F(change)=3.96, p<.01). For the moderator variables, three social support measures contributed significantly to the percentage of explained variance. These were social support by wife (R^2 change=.034, F(change)=7.98, p<.01), the wife's social support by supervisor (R^2 change=.018, F(change)=4.17, p<.05), and the husband's support by co-workers (R^2 change=.017, F(change)=4.07, p <.05). The remaining three categories of stress and the remaining moderator variables did not contribute significantly to the variance explained. The overall model, using all forty-two predictor variables, was significant (F=3.01, p<.01, R^2 =.561).

Table 6.9

Correlations between occupational and life stressors and marital stress variable for husband and wife.

	Husband's marital stress	Wife's marital stress
<u>Husband's Occupational Stressors:</u>		
Role conflict	.33*	.11
Role ambiguity	.40*	.21*
Work overload	.16*	.03
Work underload	.32*	.09
Lack of free time	.36*	.23*
Co-worker conflict	.38*	.18*
Job pressure	.34*	.15
<u>Husband's Life Events:</u>		
Number positive	-.07	-.03
Number negative	.29*	.18*
<u>Wife's Occupational Stressors:</u>		
Role conflict	.25*	.30*
Role ambiguity	.28*	.36*
Work overload	.16	.19
Work underload	.19	.18
Lack of free time	.32*	.34*
Co-worker conflict	.12	.26*
Job pressure	.18	.24*
<u>Wife's Life Events:</u>		
Number positive	.03	.08
Number negative	.20*	.32*
<u>Wife's Housework Stressors:</u>		
Boredom	.20*	.30*
Physical effort	.23*	.39*
Lack of free time	.20*	.25*
Task overload	.12	.24*

* $p < .01$, two-tailed test

6.2.3 Perceived marital stress

The method of analysis, as outlined in Section 6.1, was undertaken with the variable measuring the level of marital stress, as perceived by both the husband and wife. Table 6.9 shows the results of Stage 1 of the analysis. The table presents the correlations between the twenty-two measures of occupational, life, and housework stress and the level of marital stress, as perceived by both the husband and wife.

Fifteen of the total of twenty-two stressors correlated significantly with the husband's perception of marital stress. These significant stressors came from all five categories of stressors. All seven of the husband's occupational and three of the wife's occupational stressors correlated significantly with the husband's perception of marital stress. In addition, three of the wife's housework stressors and both the husband's and wife's number of negative life events correlated significantly with the criterion variable. All significant correlations associated higher levels of occupational and life stress with higher levels of marital stress.

To determine which of these measures exerted significant independent effects on the criterion variable, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This indicated that five of the stressors were significant independent predictors of the criterion variable. These measures were the husband's role ambiguity ($B=.16$), the husband's lack of free time ($B=.17$), the husband's number of negative life events ($B=.17$), the wife's role ambiguity ($B=.17$), and the husband's co-worker conflict ($B=.18$) ($F(5,154)=12.83$, $p<.01$, $R^2=.29$).

Table 6.9 also shows the correlations between the measures of occupational, life, and housework stress, and the wife's perception of marital stress. The results showed fourteen significant stressors, coming from all five categories of stressors. Five stressors came from the wife's occupational stress category and three from the husband's occupational stress category. In addition, all five wife's housework stressors and the number of negative life events for both husband and wife were significantly correlated with the criterion variable. All the significant correlations showed that higher levels

of occupational stress were associated with higher levels of marital stress.

To determine which of these measures exerted significant independent effects on the wife's perception of marital stress, a stepwise regression analysis was undertaken (Hull and Nie, 1981). This indicated that four of the stress measures were significant independent predictors of the criterion measure. The stress measures were the wife's physical effort of housework ($\underline{B}=.18$), the wife's number of negative life events ($\underline{B}=.22$), the wife's role ambiguity ($\underline{B}=.21$), and the wife's lack of free time due to her occupation ($\underline{B}=.16$) ($F(4,155)=14.21$, $p<.01$, $R^2=.25$).

Table 6.10 shows the results for Stage 2 of the analysis, as described in Section 6.1. The table presents the correlations between the twenty moderator variables and the level of marital stress, as perceived by both the husband and wife.

Twelve of the twenty moderator variables were significantly correlated with the husband's perception of marital stress. Nine of these were from the husband's measures of social support, and three from the wife's measures of social support. All correlations were in the direction which indicated that higher levels of social support were associated with lower levels of marital stress.

Stepwise multiple regression analysis was undertaken to determine which of these measures exerted significant independent effects on the criterion variable (Hull and Nie, 1981). This indicated three significant predictors of the husband's perception of marital stress ($F(3,169)=44.74$, $P<.01$, $R^2=.44$). These were the husband's support by his wife ($\underline{B}=-.51$), the wife's support by her husband ($\underline{B}=-.18$), and the husband's willingness to seek social support ($\underline{B}=-.12$).

Table 6.10

Correlations between moderator variables
and marital stress for husband and wife.

	Husband's marital stress	Wife's marital stress
<u>Husband's Social Support:</u>		
Wife	-.63*	-.39*
Friends	-.35*	-.27*
Neighbours	-.25*	-.18*
Relations	-.30*	-.21*
Supervisor	-.19*	-.14
Co-workers	-.24*	-.18*
Tangible assistance	-.29*	-.22*
Willingness	-.37*	-.27*
Global feelings	-.41*	-.30*
<u>Husband's Personality:</u>		
Locus of control	.10	.07
<u>Wife's Social Support:</u>		
Husband	-.40*	-.64*
Friends	-.12	-.24*
Neighbours	-.14	-.22*
Relations	-.15	-.20*
Supervisor	-.26*	-.33*
Co-workers	-.13	-.24*
Tangible assistance	-.07	-.18*
Willingness	-.16*	-.23*
Global feelings	-.12	-.26*
<u>Wife's Personality:</u>		
Locus of control	.05	.23*

* $p < .01$, two-tailed test

Table 6.10 also shows the correlations between the twenty moderator variables and the wife's perception of marital stress. The results showed seventeen significant correlations, nine from the wife's social support measures, and one for the wife's locus of control. All correlations were in the direction which indicated that higher levels of social support were associated with lower levels of marital stress. In addition, higher scores for the locus of control (indicating a more external orientation) were associated with increased levels of marital stress.

Table 6.11

Summary of the regression analysis of the husband's marital stress onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Husband's occupation	.504	.254	.254	7.19**
Wife's occupation	.548	.300	.046	1.34
Husband's life events	.570	.325	.025	2.54
Wife's housework	.590	.348	.023	1.17
Wife's life events	.593	.352	.004	<1.0
<u>Moderators:</u>				
Social support by wife	.736	.542	.190	54.76**
Wife's social support by husband	.754	.569	.027	8.14**
Remaining moderators	.799	.639	.070	1.22
(F=4.76, p<.01)		(** p<.01 * p<.05)		

The measures which exerted significant effects were determined by multiple regression analysis (Hull and Nie, 1981). This analysis indicated four independent predictors of the criterion variable. These were the wife's social support by her husband ($B=-.56$), the wife's support by her boss ($B=-.13$), the husband's willingness to seek support ($B=.14$), and the wife's locus of control score ($B=.13$) ($F(4,168)=37.04$, $P<.01$, $R^2=.47$).

It is possible that the high level of correlation between the person's perceived marital stress and his or her spouse's level of social support may simply be an artifact of the measuring instruments. The actual content of the measuring instruments suggests that they are assessing different aspects of this area, although obviously there will be some conceptual overlap between the two measures.

The third stage of the analysis involved building a regression model which incorporated all the stressor and moderator variables. This third stage was carried out for the husband's perception of

marital stress, with the results presented in Table 6.11, and for the wife's perception of marital stress, with the results presented in Table 6.12.

The results presented in Table 6.11 showed that the husband's occupational stressors made a significant contribution to the percentage of explained variance for the husband's perception of marital stress (R^2 change=.254, F (change)=7.19, p <.01). For the moderator variables, two measures made significant contributions to the level of explained variance. These were the husband's social support by his wife (R^2 change=.19, F (change)=54.76, p <.01), and the wife's social support by her husband (R^2 change=.027, F (change)=8.14, p <.01). The remaining four categories of stressors, and the remaining moderator variables, did not contribute significantly to the amount of variance explained. The overall model, using all forty-two significant variables, was significant (F =4.76, P <.01, R^2 =.639).

Table 6.12

Summary of the regression analysis of the wife's marital stress onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Wife's occupation	.444	.197	.197	5.19**
Wife's life events	.506	.256	.059	5.81**
Wife's housework	.551	.303	.047	2.41*
Husband's occupation	.569	.324	.021	<1.0
Husband's life events	.573	.329	.005	<1.0
<u>Moderators:</u>				
Social support by husband	.778	.605	.276	92.18**
Remaining moderators	.801	.642	.027	<1.0
(F=4.83, p<.01)		(** p<.01 * p<.05)		

The results presented in Table 6.12 showed that three of the categories of stressors made significant contributions to the percentage of explained variance for the wife's perception of marital stress. These categories were the wife's occupational stressors (R^2 change=.197, F (change)=5.19, p <.01), the wife's life events (R^2 change=.059, F (change)=5.81, p <.01), and the wife's housework stressors (R^2 change=.047, F (change)=2.41, p <.05). For the moderator variables, the wife's social support by the husband made a significant contribution to the percentage of explained variance (R^2 change=.276, F (change)=92.18, p <.01). The wife's locus of control measure also made a large contribution, although this was not statistically significant at the .05 level. The remaining two stressor categories, and the remaining moderator variables, also failed to make significant increases in the percentage of explained variance. The overall regression equation, using all forty-two predictor variables, was significant (F =4.83, p <.01, R^2 =.642).

6.2.4 Perceived marital communication

The method of analysis, as outlined in Section 6.1, was undertaken with the variable measuring the level of perceived marital communication, as perceived by both the husband and wife. Table 6.13 shows the results of Stage 1 of the analysis. The table presents the correlations between the twenty-two measures of stress and the level of marital communication, as perceived by both the husband and wife.

Thirteen of the total of twenty-two stressors correlated significantly with the husband's perception of marital communication. Six of the husband's occupational stressors, one of the wife's occupational stressors, and all four of the wife's housework stressors

Table 6.13

Correlations between occupational and life stressors and marital communication variable for husband and wife.

	Husband's marital communication	Wife's marital communication
<u>Husband's Occupational Stressors:</u>		
Role conflict	-.34*	-.20*
Role ambiguity	-.38*	-.28*
Work overload	-.14	-.10
Work underload	-.31*	-.11
Lack of free time	-.32*	-.19*
Co-worker conflict	-.23*	-.19*
Job pressure	-.30*	-.21*
<u>Husband's Life Events:</u>		
Number positive	.04	.04
Number negative	-.36*	-.13
<u>Wife's Occupational Stressors:</u>		
Role conflict	-.20	-.13
Role ambiguity	-.16	-.19
Work overload	-.12	-.04
Work underload	-.07	-.08
Lack of free time	-.27*	-.34*
Co-worker conflict	-.13	-.02
Job pressure	-.17	-.09
<u>Wife's Life Events:</u>		
Number positive	-.04	-.03
Number negative	-.20*	-.22*
<u>Wife's Housework Stressors:</u>		
Boredom	-.18*	-.20*
Physical effort	-.22*	-.27*
Lack of free time	-.20*	-.19*
Task overload	-.17*	-.14

* $p < .01$, two-tailed test

correlated significantly with the criterion variable. In addition, the number of negative life events for both the husband and wife correlated significantly with the criterion variable. All the correlations were in the direction of increased levels of stress being associated with decreased levels of marital communication.

To determine which of these measures exerted significant independent effects on the criterion variable, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This indicated that three of the stressors were significant independent predictors of the criterion variable. These measures were the husband's role ambiguity ($B=-.32$), the husband's number of negative life events ($B=-.33$), and the wife's task overload from housework ($B=-.20$) ($F(3,156)=19.59$, $p<.01$, $R^2=.27$).

Table 6.13 also shows the correlations between the measures of stress and the wife's perception of marital communication. The results showed ten significant stressors, coming from four of the five stressor categories. Five of the husband's occupational stressors, one of the wife's occupational stressors, and three of the wife's housework stressors were significantly correlated with the wife's perception of the level of marital communication. In addition, the wife's number of negative life events was significantly correlated with the criterion variable. All of these correlations showed a decrease in marital communication as the levels of stress increased.

To determine which of the measures exerted significant independent effects on the criterion variable, a stepwise regression analysis was undertaken (Hull and Nie, 1981). This indicated that two of the measures were significant independent predictors of the criterion variable ($F(2,157)=14.26$, $p<.01$, $R^2=.15$). These measures were the wife's lack of free time as a result of her occupation ($B=-.28$), and the husband's role ambiguity ($B=-.20$).

Table 6.14 shows the results for Stage 2 of the analysis, as described in Section 6.1. The table presents the correlations between the twenty moderator variables and the level of marital communication,

Table 6.14

Correlations between moderator variables
and marital communication for husband and wife.

	Husband's marital communication	Wife's marital communication
<u>Husband's Social Support:</u>		
Wife	.59*	.36*
Friends	.32*	.33*
Neighbours	.15	.16*
Relations	.21*	.19*
Supervisor	.13	.11
Co-workers	.15	.20*
Tangible assistance	.24*	.23*
Willingness	.34*	.23*
Global feelings	.38*	.28*
<u>Husband's Personality:</u>		
Locus of control	-.11	-.03
<u>Wife's Social Support:</u>		
Husband	.31*	.59*
Friends	.08	.12
Neighbours	.09	.16
Relations	.11	.11
Supervisor	.16	.16
Co-workers	.09	.11
Tangible assistance	.03	.08
Willingness	.07	.22*
Global feelings	.08	.15
<u>Wife's Personality:</u>		
Locus of control	.02	-.13

* $p < .01$, two-tailed test

as perceived by both the husband and wife.

Seven of the twenty moderator variables were significantly correlated with the husband's perception of marital communication. Six of these were from the husband's measures of social support and one from the wife's measure.

Stepwise multiple regression analysis was undertaken to determine which of these measures exerted significant independent effects on the husband's perception of marital communication (Hull and Nie, 1981). This indicated one significant predictor of the criterion variable,

the husband's social support by his wife ($B=.59$, $F(1,171)=91.48$, $P<.01$, $R^2=.35$).

Table 6.14 also shows the correlations between the twenty moderator variables and the wife's perception of the level of marital communication. The results show ten significant correlations, with eight from the husband's social support measures and two from the wife's social support measures.

The measures which exerted significant independent effects on the criterion variable were determined by multiple regression analysis (Hull and Nie, 1981). This analysis indicated three independent predictors of the wife's perception of marital communication. The measures were the wife's social support by husband ($B=.57$), the husband's social support by friends ($B=.24$), and the wife's social support by friends ($B=-.13$) ($F(3,169)=37.87$, $p<.01$, $R^2=.40$).

The third stage of the analysis involved building a regression model which incorporated all the stressor and moderator variables. This third stage was carried out for the husband's perception of the level of marital communication, with the results presented in Table 6.15, and for the wife's perception of the level of marital communication, with the results presented in Table 6.16.

The results presented in Table 6.15 showed that the two categories of stressors made a significant contribution to the percentage of explained variance. These were the husband's occupational stressors ($R^2_{\text{change}}=.202$, $F(\text{change})=5.34$, $p<.01$), and the husband's life events stressors ($R^2_{\text{change}}=.067$, $F(\text{change})=6.72$, $p<.01$). For the moderator variables, the level of social support by the wife made a significant contribution to the level of explained variance ($R^2_{\text{change}}=.178$, $F(\text{change})=46.46$, $p<.01$). The remaining three

Table 6.15

Summary of the regression analysis of the husband's marital communication onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Husband's occupation	.449	.202	.202	5.34**
Husband's life events	.519	.269	.067	6.72**
Wife's housework	.556	.310	.041	2.08
Wife's occupation	.561	.315	.005	<1.0
Wife's life events	.562	.316	.001	<1.0
<u>Moderators:</u>				
Social support by wife	.703	.494	.178	46.46**
Remaining moderators	.726	.528	.034	<1.0
(F=3.11, p<.01)		(** p<.01 * p<.05)		

Table 6.16

Summary of regression analysis of the wife's marital communication onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Wife's occupation	.392	.154	.154	3.84**
Wife's housework	.468	.219	.065	3.02*
Husband's occupation	.524	.274	.055	1.48
Wife's life events	.536	.288	.014	1.27
Husband's life events	.538	.289	.001	<1.0
<u>Moderators:</u>				
Social support by husband	.736	.541	.252	72.52**
Remaining moderators	.795	.632	.091	1.46
(F=4.61, p<.01)		(** p<.01 * p<.05)		

categories of stressors, and the remaining moderators, did not contribute significantly to the level of explained variance. The overall regression model was significant ($F=3.11$, $P<.01$, $R^2=.528$).

The results presented in Table 6.16 showed that two of the categories of stressors made significant contributions to the percentage of explained variance. These were the wife's occupational stressors (R^2 change=.154, $F(\text{change})=3.84$, $p<.01$), and the wife's housework stressors (R^2 change=.065, $F(\text{change})=3.32$, $p<.05$). For the moderator variables, the level of social support by the husband made a significant contribution to the level of explained variance (R^2 change=.252, $F(\text{change})=72.52$, $p<.01$). The overall regression model, using all forty-two predictor variables, was significant ($F=4.61$, $p<.01$, $R^2=.632$).

6.2.5 Perceived psychological health

The method of analysis, as outlined in Section 6.1, was undertaken with the variables measuring the level of psychological health, as perceived by both the husband and wife. The level of psychological health was assessed by the GHQ12 (see Section 4.5.2) and measures the level of general psychological well-being, with higher scores suggesting an increased likelihood of psychological impairment. Table 6.17 shows the results of Stage 1 of the analysis. The table presents the correlations between the twenty-two measures of stress and the level of psychological health, for both the husband and wife.

Twelve of the total of twenty-two stressors correlated significantly with the husband's level of psychological health. Of these twelve, seven came from the class of occupational stressors, and two from the category of husband's life events. In addition, there was one stressor each from the categories of the wife's occupational stressors, the wife's life event stressors, and the wife's housework stressors. Eleven of the significant correlations were in the

Table 6.17

Correlations between occupational and life stressors and GHQ12 scores for husband and wife.

	Husband's GHQ score	Wife's GHQ score
<u>Husband's Occupational Stressors:</u>		
Role conflict	.34*	-.01
Role ambiguity	.28*	.05
Work overload	.35*	.01
Work underload	.21*	-.01
Lack of free time	.36*	.10
Co-worker conflict	.32*	.01
Job pressure	.48*	.05
<u>Husband's Life Events:</u>		
Number positive	-.17*	-.08
Number negative	.32*	.03
<u>Wife's Occupational Stressors:</u>		
Role conflict	.12	.23*
Role ambiguity	.09	.27*
Work overload	.11	.12
Work underload	.03	.12
Lack of free time	.27*	.32*
Co-worker conflict	.02	.24*
Job pressure	.14	.24*
<u>Wife's Life Events:</u>		
Number positive	-.04	-.03
Number negative	.24*	.37*
<u>Wife's Housework Stressors:</u>		
Boredom	.10	.20*
Physical effort	.14	.31*
Lack of free time	.21*	.26*
Task overload	.03	.25*

* $p < .01$, two-tailed test

direction associating increased levels of stress with decreased levels of psychological health. The remaining measure, the number of positive life events for the husband, was in the reversed direction, with an increase in the number of positive life events being associated with an increase in psychological health.

To determine which of these measures exerted significant independent effects on the criterion variable, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This

analysis indicated that four of the stressors were significant independent predictors of the husband's level of psychological health. These measures were the husband's job pressure ($\underline{B}=.38$), the husband's number of negative life events ($\underline{B}=.25$), the husband's number of positive life events ($\underline{B}=-.21$), and the wife's lack of free time as a result of her occupation ($\underline{B}=.17$) ($F(4,155)=20.59$, $p<.01$, $R^2=.35$).

Table 6.17 also shows the correlations between the measures of stress and the wife's level of psychological health. The results showed ten significant stressors, from three of the five categories of stressors. Five stressors came from the wife's occupational stressor category, one from the wife's life events category, and four from the wife's housework category. All the significant correlations were in the direction of increased levels of stress being associated with decreased levels of psychological health.

To determine which of these measures exerted significant independent effects on the criterion variable, a stepwise multiple regression analysis was undertaken (Hull and Nie, 1981). This indicated that four stressors were significant predictors of the wife's level of psychological health ($F(4,155)=13.26$, $p<.01$, $R^2=.25$). These stressors were the wife's number of negative life events ($\underline{B}=.34$), the wife's lack of free time as a result of her occupation ($\underline{B}=.32$), the wife's co-worker conflict ($\underline{B}=.24$), and the husband's work overload ($\underline{B}=-.15$).

Table 6.18 shows the results for Stage 2 of the analysis, as described in Section 6.1. The table presents the correlations between the twenty moderators and the levels of psychological health, for both the husband and wife.

Table 6.18

Correlations between moderator variables
and GHQ12 scores for husband and wife.

	Husband's GHQ score	Wife's GHQ score
<u>Husband's Social Support:</u>		
Wife	-.20*	-.12
Friends	-.23*	-.13
Neighbours	-.18*	-.08
Relations	-.11	-.03
Supervisor	-.15	.00
Co-workers	-.18*	-.07
Tangible assistance	-.31*	-.15
Willingness	-.23*	-.13
Global feelings	-.27*	-.13
<u>Husband's Personality:</u>		
Locus of control	.27*	.11
<u>Wife's Social Support:</u>		
Husband	-.03	-.22*
Friends	.02	-.12
Neighbours	-.04	-.06
Relations	.07	-.10
Supervisor	-.10	-.09
Co-workers	-.01	-.16
Tangible assistance	-.02	-.07
Willingness	.00	-.04
Global feelings	-.01	-.12
<u>Wife's Personality:</u>		
Locus of control	.01	.17*

* $p < .01$, two-tailed test

Eight of the twenty moderator variables were significantly correlated with the husband's level of psychological health. Seven of these came from the husband's social support measures and the eighth from the husband's locus of control measure. The direction of the correlations showed that in all significant cases, an increase in the level of social support was associated with a increase in the level of psychological health. As well, an increase in the locus of control measure (associated with a more external orientation) was related to an decrease in the level of psychological health.

Stepwise multiple regression analysis was undertaken to determine which of these measures exerted significant independent effects on the criterion variable (Hull and Nie, 1981). This indicated two significant predictors. These were the husband's tangible social assistance ($B=-.26$), and the husband's locus of control ($B=.22$) ($F(2,170)=13.65$, $p<.01$, $R^2=.14$).

Table 6.18 also shows the correlations between the twenty moderator variables and the wife's level of psychological health, as measured by the GHQ12. The results show only two significant correlations, those of the measures of the husband's support and the wife's locus of control. Specifically, higher levels in the social support measure and lower levels in the locus of control measure lead to higher levels of psychological health. To determine significant independent effects, a stepwise multiple regression analysis was undertaken. This showed only one significant predictor of the wife's levels of psychological health, that of social support by the husband ($B=-.22$, $F(1,171)=8.41$, $P<.01$, $R^2=.05$).

The third stage of the analysis involved building a regression model which incorporated all the stressor and moderator variables. This third stage was carried out for the husband's level of psychological health, with the results presented in Table 6.19, and for the wife's level of psychological health, with the results presented in Table 6.20.

The results presented in Table 6.19 showed that two of the categories of stressors made significant contributions to the percentage of variance explained. These were the husband's occupational stressors ($R^2_{\text{change}}=.309$, $F(\text{change})=9.44$, $p<.01$), and the husband's life event stressors ($R^2_{\text{change}}=.062$, $F(\text{change})=7.27$, $p<.01$).

Table 6.19

Summary of the regression analysis of the husband's GHQ12 score onto stress sources and moderator variables.

	Multiple R	RSQ	RSQ change	F change
<u>Stress Source:</u>				
Husband's occupation	.556	.309	.309	9.44**
Husband's life events	.609	.371	.062	7.27**
Wife's occupation	.620	.384	.013	<1.0
Wife's life events	.624	.390	.006	<1.0
Wife's housework	.625	.391	.001	<1.0
<u>Moderators:</u>				
Husband's locus control	.642	.412	.021	4.83*
Remaining moderators	.668	.446	.034	<1.0
(F=2.24, p<.01)		(** p<.01 * p<.05)		

For the moderator variables, the husband's locus of control made a significant contribution to the percentage of explained variance (R^2 change=.021, $F(\text{change})=4.83$, $p<.05$). The remaining three stressor categories, and the remaining moderator variables, did not contribute significantly to the level of variance accounted for. The overall regression model, using all forty-two predictor variables, was significant ($F=2.24$, $p<.01$, $R^2=.446$).

The results presented in Table 6.20 showed that two of the stressor categories made significant contributions to the level of explained variance. These were the wife's occupational stressors (R^2 change=.164, $F(\text{change})=4.15$, $p<.01$), and the wife's life events (R^2 change=.103, $F(\text{change})=10.26$, $p<.01$). The remaining three stressor categories, and the moderator variables, failed to make any significant increase in the percentage of explained variance. However, the overall regression equation was significant ($F=1.63$, $p<.05$).

and home lives. For all of these measures, increased levels of stress were associated with increased levels of impact on the family. A different pattern of stressors emerged when the wife's perception of the impact of her husband's job was considered. The significant stressors now included the wife's lack of free time as a result of her job, her physical effort of housework, and the husband's job pressure. Once again, increased levels of stress were associated with increased levels of impact on the family. In addition, it appeared that the level of the wife's occupational and housework stressors had significant effects on her perception of the impact of her husband's job. This was partially confirmed by Stage 3 of the analysis of the wife's perception of her husband's job impact, which showed two categories of stressors contributing significantly to the percentage of explained variance (see Table 6.4).

When the effects of the moderator variables on the husband's perception of the impact of his job on the family were considered, the husband's global feelings of social support was a significant moderator. For the wife's perception of the effects of her husband's job on the family, two significant moderators emerged. These were the level of the wife's social support by her husband, and the level of the husband's social support by his friends. For all of these moderators, an increase in the level of support was related to a decrease in the level of impact on the family.

An interesting pattern emerged when the wife's perceptions of the impact of her job on the family was analysed. The preliminary analysis revealed no significant correlates with, or predictors of, the criterion variable. However the later analysis (Stage 3) showed that two categories of stressors made significant contributions to the

percentage of explained variance. These were the wife's occupational stressors and the wife's housework stressors (see Table 6.7). For the husband's perception of the impact of his wife's job on the family, the significant stressors effecting the criterion variable were the husband's work underload, work overload, and lack of free time, as well as the wife's role conflict. This pattern was confirmed by Stage 3 of the analysis, with the two categories of the husband's occupational stressors and the wife's occupational stressors making significant contributions to the percentage of explained variance. For all stressors, an increase in their level was associated with an increase in the level of impact on the family.

An unusual result emerged for the effects of the moderator variables on the wife's perception of the impact of her job on the family. The only significant moderator was the level of social support by neighbours, but the direction of the correlations suggested that an increase in the level of support was related to an increase in the level of impact on the family. A possible explanation may be that an increase in social support lead to an increase in awareness, with higher levels of impact being perceived. When the husband's perception of the impact of his wife's job on the family was considered, two significant moderators emerged. These were the husband's social support by his wife, and the husband's social support by his workmates. Stage 3 of the analysis revealed one extra significant factor, that of the wife's social support by her supervisor.

For the husband's perception of marital stress, stressors from both the husband and wife had important effects. These stressors were the husband's role ambiguity, lack of free time, co-worker conflict,

and number of negative life events, as well as the wife's role ambiguity. For the wife's perception of marital stress, none of the husband's stressors made significant contributions. The stressors predicting the wife's perception of marital stress were the physical effort of housework, the wife's role ambiguity, lack of free time as a result of her occupation, and the number of negative life events. For all these stressors, for both the husband's and wife's perception, the correlations indicated that increased levels for the stressor measures were associated with increased levels of marital stress.

Three moderator variables had significant effects on the husband's perception of marital stress. These were the husband's social support by his wife, the wife's social support by her husband, and the husband's willingness to seek social support. For the wife's perception of marital stress, the significant moderators were the wife's social support by her husband, the wife's social support by her boss, and the husband's willingness to seek social support. In addition, the wife's locus of control score was a significant moderator, with decreased scores (or a more internal locus) being related to decreased levels of marital stress. For all the social support variables, an increase in the level of social support was associated with a decrease in the level of marital stress.

For the husband's perception of marital communication, the major stressors effecting the criterion variable were the husband's role ambiguity, the husband's number of negative life events, and the wife's task overload from housework. For the wife's perception of marital communication, the significant stressors were the wife's lack of free time as a result of her occupation, and the husband's role ambiguity. For all stressors, for both the husband and wife, an

increase in the level of stress was associated with a decrease in the level of communication.

An examination of the effects of the moderator variables on the husband's perception of marital communication suggested one important moderator, that of the husband's social support by his wife. For the wife's perception of marital communication, three important moderators emerged. These were the wife's social support by her husband, the husband's social support by his friends, and the wife's social support by her friends. All moderators except the last, indicated that higher levels of support were associated with higher levels of communication.

For the husband's level of psychological health as assessed by the GHQ12, both life events measures had significant effects, with the number of positive life events being associated with better psychological health, and the number of negative life events being associated with poorer psychological health. In addition, the husband's job pressure and the wife's lack of free time as a result of her occupation also had significant effects on the husband's psychological health. In both cases an increase in the level of stress was associated with poorer psychological health. The major stressors effecting the wife's psychological health, as assessed by the GHQ12, were the wife's number of negative life events, the lack of free time and co-worker conflict, and the husband's work overload. Increased levels in all stressors, except the husband's work overload, were associated with poorer psychological health for the wife.

The effects on the psychological health of the husband were moderated by two variables. These were the husband's tangible social assistance and the husband's locus of control. Effects on the wife's psychological health were moderated by social support from her

husband. For all the social support variables, an increase in the level of support lead to better psychological health. For the locus of control measure, an external orientation was associated with poor psychological health.

Looking at the overall incidence of specific stressors in relation to the criterion variables considered, three areas of stressors appeared slightly more often than the others. The stressor which related to most areas was the interference with the family measure of lack of free time (see Section 4.5.1), followed by the organizational roles stressors and the life events stressors. For the husband's perception of the effects of the occupation, these three categories were the most important, while for the wife's perception, the major area was the interference with the family measure of lack of free time.

Finally, different moderator variables assumed different levels of importance as the various criterion variables were analysed, but overall results indicated that the husband's level of support by his wife was quite important. In addition, non-specific support, such as the level of global support and tangible support, were important for the husband. At the workplace, only support from workmates made a difference, and support by the supervisor did not appear to be as important. For the wife, support from her husband, and support from friends, were both important moderators. The wife also considered support by her supervisor as an important moderator, but co-workers did not appear as significant in the analysis. The locus of control measure was a significant moderator in two specific areas, the level of psychological health for the husband, and the level of marital stress for the wife.

SECTION 7

DISCUSSION AND CONCLUSIONS

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The results of the research, as outlined in the previous two sections, have focussed on two separate areas in the investigation of the effects of stress on marital relationships and the family, and psychological health. The first area investigated was the difference between the specific occupational groups involved in the research. These differences were considered over the three major types of variables utilized in the study. These were the variables assessing the sources of stress, those investigating the effects of stress, and those variables investigating moderating influences on the relationship between stress and its effects. The results of this investigation were reported in Section 5.

The second area investigated involved a study of the interaction and relationships between the various stressors and moderators and their effects on the specific criterion variables under study. These criterion variables assessed the effects of stress in five areas, covering the impact of the husband's job on the family, the impact of the wife's job on the family, the level of marital stress, the level of marital communication, and the level of psychological health. An extension of this approach over previous studies involved the assessment of the above variables from two points of view, that of the husband's perception of the criterion variable, and that of the wife's perception of the criterion variable.

The following two sections discuss these two areas in turn, with Section 7.1 discussing the differences between occupational groups, and Section 7.2 discussing the results of the analysis of interactions. The final two sections, Section 7.3 and Section 7.4 then present conclusions in terms of the original hypotheses, and conclusions and speculations for future research.

7.1 Differences between occupational groups

Comparisons were made between the five occupational groups involved in the study by means of a series of analyses of variance. Specific details of the results obtained for these comparisons are available in Section 5.1. For the levels of stress, results indicated that the occupational group of prison officer was perceived as being the most stressful, compared with the other occupations. To date, very little research has been undertaken on stress in prison officers, but the results of a recent major study (Voges et al., 1982) suggested that it is an occupation causing considerable stress. For the sample in the present study, role stresses, co-worker conflict, and work underload appeared to be the major stressors.

In support of these findings, a few articles have pointed out the likelihood of role stressors occurring as a result of the complex role played in the officer's interaction with the inmate (Pogrebin, 1978; Thomas, 1974). The study by Voges et al. (1982) found that relationships within the prison and with co-workers were considered highly stressful by the officers surveyed. In addition, while there would appear to be some intuitive reasons for assuming that work underload may be a problem for officers, there is as yet no other published research to support this. Studies of the police, however,

(Eisenberg, 1975; Rubinstein, 1973) have confirmed underload, combined with short periods of extreme overload, as a potential source of stress. A similar situation would appear to be present for prison officers.

The results also indicated higher levels of role conflict and work overload for teachers. A number of studies have found support for the presence of role conflict as a stressor among teachers. Dunham (1976) identified role stressors as one of the three major stressful situations among teachers. The other two covered reorganization and poor working conditions. Dodds (1974), in a study of teachers who had taken part in the reorganization of a school, found that many of them felt that their role had become more ambiguous and difficult. Blackie (1977) has argued that the need for teachers to assume several roles is a major factor in teacher stress. Work overload, and related concepts, have also been found to be a major stressor in a number of studies. Cox (1977, in Kyriacou, 1980) attributed the nature of the work as an important stressor among teachers. This covered such areas as work overload, disruptive pupils, and the rate of organizational change. An early study by Rudd and Wiseman (1962) found that "high teaching load" was a highly mentioned source of job dissatisfaction among teachers.

The remaining three occupational groups did not appear as highly stressed, in the areas assessed in this study, as prison officers and teachers. Barristers and solicitors scored quite highly in the area of work overload, but the absence of any other study assessing stress in these three occupations makes it difficult to draw definite conclusions. Intuitively, barristers and solicitors could be expected to be high on the work overload scale. A surprising result was the

low levels of stress among ambulance officers, although the small size of the sample (n=34) precludes definite conclusions at this stage. Direct comparisons as to the relative stressfulness of various occupations are difficult however, because different occupations will generate different areas of stressors. In addition, within any occupation, a group of 15 to 20% of the job incumbents are going to comprise a "high stress" group (Payne, Jick and Burke, 1982). This group would be the one where the effects of the specific occupational stressors would be most clearly seen.

It is surprising, in view of the higher levels of occupational stress among prison officers, as discussed above, that the measures of the effects of stress failed to show any differences across the occupational groups. The only variable which showed a difference was the measure of the job's impact on the family. This indicated that prison officers were higher in their assessment of the impact of their occupation on the family than the other occupational groups. The prison officers' wives' assessment was not as clear however, with only the disruption measure being assessed as higher than the other occupational groups. The wives of teachers scored highest for the scales measuring impact on the family due to the requirements to move and the level of public behaviour required. The effects on the required level of public behaviour was considerably higher for teachers' wives than for any other wives' group.

Studies of occupational differences for the locus of control measure have not yet been undertaken, but it would be expected that there would be some self-selection into occupations due to this particular personality trait. In considering this, the occupational differences shown in this study are very interesting. The most

internally orientated occupation was that of insurance salesmen, a group of people who are completely independent and self-reliant for their success in their occupation. The most externally orientated occupation was that of the prison officer. This occupation is very structured, with relatively clear duties and promotion hierarchies. This suggests that a number of interesting conclusions could be obtained from research relating the locus of control measure to various objective characteristics of an occupation. For instance, Spector (1982) has reviewed the relationship between the locus of control construct and a number of organizational outcomes. These outcomes include the levels of motivation, performance, and satisfaction, as well as moderating the relationship between satisfaction and turnover. The Job Diagnostic Survey (JDS) of Hackman and Oldham (1975) (see also Abdel-Halim, 1978) also suggests five organizational characteristics that could be related to the level of internal or external orientation. These five characteristics are: (a) skill variety, the necessity for a range of skills; (b) task identity - the production of an identifiable piece of work; (c) task significance - the impact of the job on the organization or outside; (d) autonomy - the level of independence; and (e) feedback - information about the effectiveness of the effort involved. It is quite conceivable that such characteristics of the organization could interact with locus of control orientations within the individual.

The second stage of the research comparing the five occupational groups involved looking at the effects of occupational stressors on the four criterion variables of, impact on the family, marital stress, marital communication, and psychological health. This analysis was undertaken for each occupational group separately and for both the

husband's and wife's perception of the criterion variable. The analysis involved both correlational and multiple regression techniques and is presented in detail in Section 5.2.

For the prison officer's perception of the effects of his job on the criterion variables, 50% (18 out of 36) of the correlations with the occupational and life stressors were statistically significant ($p < .01$, two-tailed). For the prison officers' wives, however, only 8% (3 out of 36) of the correlations were statistically significant.

As the scale used in the present research to assess adverse effects on the family was the same as that used by Burke, Weir and DuWors (1980a), it was possible to make some comparisons between the results obtained in that study and the present one. Although the "occupational demands" of Burke, Weir and DuWors and the "occupational stressors" assessed in the present research are not identical, they should tap similar areas. Table 7.1 presents the appropriate correlation coefficients for the six measures that are most comparable. The results presented in the table show substantial levels of agreement for three of the measures. These three were role conflict, lack of free time, and co-worker conflict. All three measures showed that increased levels of role conflict, lack of free time, and co-worker conflict were associated with increased levels of negative impact on the family.

Returning to the results of the present research, the lack of free time variable was significantly correlated with the criterion variables in 75% of the correlations. It would appear that it is an important stressor for the prison officer occupational group. The other major area of stress effecting the family and marital relationships was the general measure of job pressure.

Table 7.1

A comparison of correlations between the impact on the family scale and a number of occupational stressors, between the study by Burke, Weir and DuWors (1980), and the present study.

Stressor	Burke et al.	Present study
Role conflict	-.17	-.19
Role ambiguity	.07	-.31
Work overload (Quantitative overload)	-.27 (p<.05)	.00
Lack of free time (Hours worked per week)	-.21 (p<.05)	-.33 (p<.01)
Co-worker conflict (Stress in communicating)	-.44 (p<.01)	-.31

For the insurance salesmen's perception of the effects of his job on the criterion variables, 39% (14 out of 36) of the correlations were statistically significant (p<.01, two-tailed). For the salesmen's wives, the percentage of significant correlations was 11% (4 out of 36). Here, no single stressor appeared to effect the family and marital relationships. The effects were spread over a number of stressors, covering role conflict, work overload, lack of free time, and job pressure.

For the barristers and solicitors' perception of the effects of his job on the four criterion variables, 33% (12 out of 36) of the correlations with the occupational and life stressors were statistically significant. For the barristers and solicitors' wives, the percentage of significant correlations was 5% (2 out of 36). Here, all occupational stressors except role ambiguity had a

significant effect on at least two of the criterion variables, with job pressure correlating significantly with three of these.

For the ambulance officers' perception of the effects of his job on the four criterion variables, 14% (5 out of 36) of the correlations were statistically significant ($p < .01$, two-tailed). For the ambulance officers' wives, there were no significant correlations. The only occupational stressors which were related to any criterion variables were work overload, lack of free time, and job pressure.

The absence of studies assessing occupational stress in these three occupations makes further specific interpretation difficult, although a number of general comments will be made in Section 7.2.

For the primary teachers' perception of the effects of their job on the criterion variables, 78% (28 out of 36) of the correlations were statistically significant ($p < .01$, two-tailed). For the teachers' wives, 11% (4 out of 36) of the correlations were significant. The stressors correlating with the most criterion variables were role ambiguity, lack of free time, and job pressure. Although a considerable amount of research has been undertaken into occupational stress among teachers, no studies have considered specific effects on the family and marital relationships. However, a number of general comments concerning overall effects on the family, for all these occupational groups combined, will be made in the following section.

7.2 Interaction between variables

The second area of investigation considered a number of measures of stress from both the organizational and extra-organizational aspects, and assessed their effects on the family and marital relationships, for both the job incumbent and his wife. Twenty-two

separate sources of stress and twenty separate moderators were related to ten criterion variables assessing the effects of stress. Detailed results appear in Section 6. The major type of analysis undertaken was correlational, followed by multiple regression to isolate significant independent effects (see Section 6.1 for a detailed description of the analysis undertaken).

The correlational analysis revealed that a very large number of correlations were statistically significant at the .01 level. For the husband's measures of stress 67% (74 out of 110) of the correlations with the five criterion variables were significant, while for the wife's measures of stress, 45% (50 out of 110) of the correlations with the five criterion variables were significant ($p < .01$, two-tailed). When this is compared with the results obtained by Burke, Weir and DuWors (1980a), whose study formed the basis for the development of the present research, the results obtained here are considerably stronger. In comparison, they found that only about 20% of their correlations were statistically significant at the .05 level. In addition, when the correlations between the moderator variables and the five criterion variables are examined in the present study, 44% of them, for both the husbands' and the wives' data, were statistically significant ($p < .01$, two-tailed).

Several features of the work environment showed significant relationships with the job incumbent's level of marital and family functioning. Persons perceiving their job settings as high in work stress (e.g. lack of free time, role conflict, and role ambiguity), and their social settings as low in support mechanisms (e.g. social support by wife, overall level of global support, and tangible assistance) reported higher levels of adverse disruption on the

family, higher marital stress, and lower levels of marital communication.

In addition, there were significant relationships between life event stress and various criterion variables, which indicated that, aside from factors intrinsic in the job, it is also important to consider extra-organizational sources of stress as co-determinants of the criterion variables under consideration. The findings of this study therefore provide support for the assumption (Burke and Bradshaw, 1981) that there is an interactive relationship between various occupational and life stressors and adverse effects on the family and marital relationships.

In Section 1 it was suggested that increasing the number of predictor variables assessed was an efficient method of increasing the level of explained variance, and therefore the predictive power and validity of the research. A summary of the results obtained by considering different categories of predictor variables is outlined in Table 7.2. The table presents the percentage of explained variance (R^2) in each of the ten criterion variables, as accounted for by the five categories of stressors and the moderator variables category.

Most research in occupational stress to date has concentrated solely on the effects of the husband's occupational stressors on the criterion variables assessed. This situation corresponds to considering only the first column in Table 7.2. For this column, the percentage of explained variance ranged from 2.1% (wives' marital stress) to 51.5% (husbands' impact on the family). Both the impact of the husbands' job and the impact of the wife's job would be expected to show high proportions of explained variance, as they can be related specifically to the occupational stressors. In addition, most studies

Table 7.2

Percent of explained variance (R^2) within each of the ten criterion variables, accounted for by the five categories of stressors and the moderator variables.

Criterion variables	Independent Measures						Total
	Husb's occupation	Wife's occupation	Husb's life	Wife's life	Wife's house-work	Moderators	
<u>Impact of husband's job:</u>							
Husband	.515*	.025	.003	.002	.011	.057*	.613
Wife	.080*	.027	.002	.006	.208*	.135*	.458
<u>Impact of wife's job:</u>							
Husband	.288*	.128*	.008	.007	.010	.118*	.561
Wife	.034	.091*	.017	.000	.246*	.120	.508
<u>Marital stress:</u>							
Husband	.254*	.046	.025	.004	.023	.287*	.639
Wife	.021	.197*	.005	.059*	.047*	.313*	.642
<u>Marital communication:</u>							
Husband	.202*	.005	.067*	.001	.041	.212*	.528
Wife	.055	.154*	.001	.014	.065*	.343*	.632
<u>Psychological health:</u>							
Husband	.309*	.013	.062*	.006	.001	.055*	.446
Wife	.043	.164*	.008	.103*	.012	.048	.378

* These percentages of explained variance were significant at the .05 level. Some are low as they were added later in the model. See Section 6 for details of how these results were obtained.

to date, with the exception of Burke, Weir and DuWors (1980a) have not considered the wife's perception of the criterion variables. Therefore, for comparison with previous research, only the remaining three measures of marital stress, marital communication, and psychological health were considered. Ignoring the impact on the family measures, and the wives' perceptions, for these above reasons, an average of 25.8% of explained variance for the remaining three measures is obtained. This figure is quite close to the 20% of explained variance normally obtained in studies of this type.

Similarly, if the relationship between the wives' occupational stressors (column 2 of Table 7.2) and her perception of the effects of these on the three criterion variables is considered, an average of 17.2% of the criterion variables' variance is explained by the wife's occupational stressors.

The total level of explained variance when all forty-two independent stressor and moderator variables are considered in the equation is shown in the last column of Table 7.2. The average percentage of explained variance in this column, over all criterion variables, is 54%, with a range from 38% to 64%. For the majority of criterion variables, the percentage of variance explained has more than doubled when alternative stress sources and moderators of stress are considered in addition to the basic source of the husband's occupational stress, the category normally studied in this type of research. While being able to explain 54% of the variance may still not be sufficient to isolate individuals who are suffering from stress, it is a considerable improvement over the 20 to 25% of explained variance normally obtained in occupational stress studies.

Another important finding related to the use of measures of housework stress for the wife. In four of the five measures, the amount of explained variance was significantly increased by the inclusion of the category of housework stressors. For two of these measures, the wife's perception of the impact of her husband's job, and the wife's perception of the impact of her job, the amount of additional variance explained by the inclusion of these measures was over 20%.

Similarly, for two of the wife's criterion variables and for two of the husband's criterion variables, the inclusion of life event stress measures lead to significant increases in the amount of explained variance, ranging from 6% to 10%.

Considering the impact on the family scale from the husband's perception, Table 7.2 shows that 51.5% of the variance in this criterion measure is accounted for by the husband's occupational stressors. This shows a high level of relationship between the occupational stressors and the effects on the family, so far as the husband is concerned. The same occupational stressors, however, only accounted for 8% of the variance in the wife's perception of the impact of her husband's job on the family. The major stressor category of importance for the wife was her housework stress, a category not considered in earlier research.

Looking at the husband's perception of the impact of his wife's job on the family, Table 7.2 shows that the husband's own occupational stressor category is an important area, and explained over twice the variance that the wife's occupational stressor category explained. Both of these examples suggested that there are strong crossover effects from husband to wife when considering the impact of either spouse's occupation.

Table 7.2 also shows the considerable importance of the moderator variables. In eight of the ten criterion variables, covering both the husband's and wife's perception, the amount of explained variance was increased significantly by the introduction of the moderator variables. For four of these cases, the increase was more than 20%. These were the husband's perception of marital communication (21%), the husband's perception of marital stress (29%), the wife's

perception of marital stress (31%), and the husband's perception of marital communication (34%). Such findings show that the inclusion of moderator variables helps to greatly increase the predictive power of the study.

Considering the relationship between the stressor categories and the various criterion variables in turn, shows different stressor categories effecting these measures. For the husband's perception of the impact of his job on the family, only the husband's occupational stressor category was significant. For the wife's perception, her housework stressors were significant, as well as the husband's occupational stressor category. For the wife's perception of the effects of her job on the family, both the wife's occupational stressors and her housework stressors were significant, while for the husband's perception, both his and her occupational stressor categories were significant. Such findings suggest that the viewpoint of the husband is very narrow, for his occupational stressors are considered the most important in his perceptions of both his and his wife's job impact. The wife's perception includes a wider range of stressors. This may help to explain some of the marital friction that results.

For the husband's perception of marital stress, only the husband's occupational stressors were significant, while for the wife's perception of marital stress, the wife's occupational, the wife's life stresses, and the wife's housework stressors were all significant. For the husband's perception of marital communication, both the husband's occupational and the husband's life stressors were significant. For the wife's perception of marital communication, both the wife's occupational and the wife's housework stressors were

significant. Once again, evidence for the narrowness of the husband's viewpoint is apparent, with the majority of effects occurring, from his perception, as a result of his occupation. The wife's perception of effects cover a wider range. However, neither partner showed any evidence of considering the other's occupation to have any effect on their perception of the marital relationship.

Finally, for the effects on the husband's psychological health, as assessed by the GHQ12, both the husband's occupational and the husband's life stressors were significant, while for the wife's psychological health, both the wife's occupational and life stressors were significant.

7.3 Support for hypotheses

In terms of the specific hypotheses posited (see Section 4.3), the following results were obtained. Hypothesis 1 stated that 'the use of a set of wide-ranging measures in the design will lead to an increase in the level of explained variance for all criterion variables.' This was clearly confirmed. For every criterion variable analysed, increasing the range and type of independent and moderator variables lead to an increase in the percentage of explained variance. For two variables (marital stress and marital communication), this increase was over 100% (see Table 7.2, and the discussion in the previous section).

Hypothesis 2 stated that 'in New Zealand, occupations which are related to "blue collar" positions will exhibit different levels of occupational stress to "white collar" workers.' The findings for Hypothesis 2 are not as clear cut, although it appears that the prison officer occupation, in the semi-skilled non-manual category, exhibited

the most stress. Definite conclusions relating this finding to the generalization that increased stress occurs within semi-skilled positions are not possible however, due to the obviously inherent stressful nature of the prison officer's occupation. However Hypothesis 3 was confirmed. This hypothesis stated that 'different occupations will exhibit different levels of occupational stress from different sources.' As outlined in detail in Section 5, the various occupations sampled in this study displayed differing levels of stress over the different specific stressors assessed.

Hypothesis 4 related higher levels of occupational stress to a range of adverse effects on the family, marital stress, marital communication, and psychological health. For Hypothesis 4, all the subsections were confirmed. Increased levels of stress lead to increases in adverse disruption on the family and marital stress, and to decreases in marital communication and levels of psychological health. However, even though this broad statement has been confirmed, the discussion outlined above, and the more detailed description of the results given in Section 6 showed that the actual situation was more complex. Various stressor categories gained importance as different criterion variables were analysed. In addition, interactions were observed between many of the husband's criterion variables and the wife's stressors, specifically the occupational and housework stressors.

Finally, the same general comments can be made for Hypotheses 5 and 6. These two hypotheses related the levels of the moderator variables to decreases in adverse effects on the criterion variables. Specifically, higher levels of social support would lead to decreases in adverse effects, while a more external orientation on the locus of

control measure would lead to increases in adverse effects. The presence of moderator variables did lead to reductions in adverse effects from the various stressors, although the actual situation was more complex. In general terms, social support from the person's spouse was an important moderator. At work, social support by co-workers was important for the husband, and social support by the supervisor important for the wife.

7.4 Conclusions

The last two sections, and the preceding subsections of the present section, have outlined in some detail the specific findings that have emerged from this study. Differences between the five occupational groups comprising the sample have been isolated and reported. Those differences which were found have been related as much as possible to specific aspects of the occupation that may be relevant. Because of the absence of studies in the area of occupational stress for three of the occupations, only general comments could be made. For the remaining two occupations, those of prison officers and teachers, the findings reported here are supported by the rather limited amount of research in the area. See for example, studies assessing stress in the police (Davidson and Veno, 1979; Kroes, Margolis and Hurrell, 1974; Webb and Smith, 1980), and in teachers (Kyriacou, 1980, 1981; Kyriacou and Sutcliffe, 1977; Pratt, 1978).

When the interactions between the variables for the complete sample are considered, a number of interesting conclusions emerge. One of the most important of these is the clear demonstration of overlap between the husband's and wife's stress sources. For example,

when the husband's impact on the family as result of his job is analysed, all seven of the husband's occupational stressors show an adverse relationship. In addition, however, five of the wife's occupational stressors and all four of her housework stressors were significantly related to the husband's job impact on the family. This same overlapping effect was also present in the two marital relationships measures, those of marital stress and marital communication. The results outlined clearly showed that the wife's occupational and housework stressors extended their influence well beyond only those criterion variables relating to the wife. Such an important finding needs to be considered in future research in this area.

When the wife's impact on the family was considered, a surprising result emerged, with none of the twenty-two separate stressors being related to the wife's perception of this impact. This may indicate that the wife feels that her impact occurs in other ways apart from the occupational, life and housework demands which were assessed here. There is a need for more research in this area to discover what aspects of these demands the wife feels is important. The other criterion variable which showed very little overlap was that measuring psychological health. However, the husband's occupational stressors were related to his level of psychological health, and for the wife, her occupational and housework measures were related to her level of psychological health.

A second major finding with relevance to future research in this area is the strong effect of the housework stressors on the various criterion variables. The wife's housework stressors were significantly related to every criterion variable, and for two of

these variables, were the most important contributor to the level of explained variance. These two variables were the wife's perception of the impact of her husband's job, and the wife's perception of the impact of her job. This would suggest that future research which looks at the overlap between work and home life for both husband and wife will need to take into account this important category of stressors. Other studies have confirmed the negative effects of housework (Ferree, 1976; Newberry, Weissman and Myers, 1979; Warr and Parry, 1982; Weissman, Pinous, Radding, Lawrence and Siegel, 1973).

Related to this was the role of the life event stressors. Looking at the correlational analysis, the number of negative life events was significantly related to every criterion variable, and in five cases, with both the husband's and wife's perception of the criterion variable. The regression analysis confirmed its importance for the three variables of marital stress, marital communication, and psychological health, but not for the two impact on the family variables. This is not surprising, as the impact on the family variables were specifically related to the occupation of the husband and wife. The number of positive life events showed significant correlations only with the husband's psychological health. Most research done at present has not attempted to relate life event stress and occupational stress. A study by Harris (1972) showed a negative relationship between life stress and academic performance, while Vossel and Froehlich (1979) showed a negative relationship with job tension and task performance. However, there are a large number of studies confirming the relationship between life stress and psychological health (Johnson and Sarason, 1978; Paykel, 1974a, 1974b, 1976). The present research has confirmed this negative

relationship.

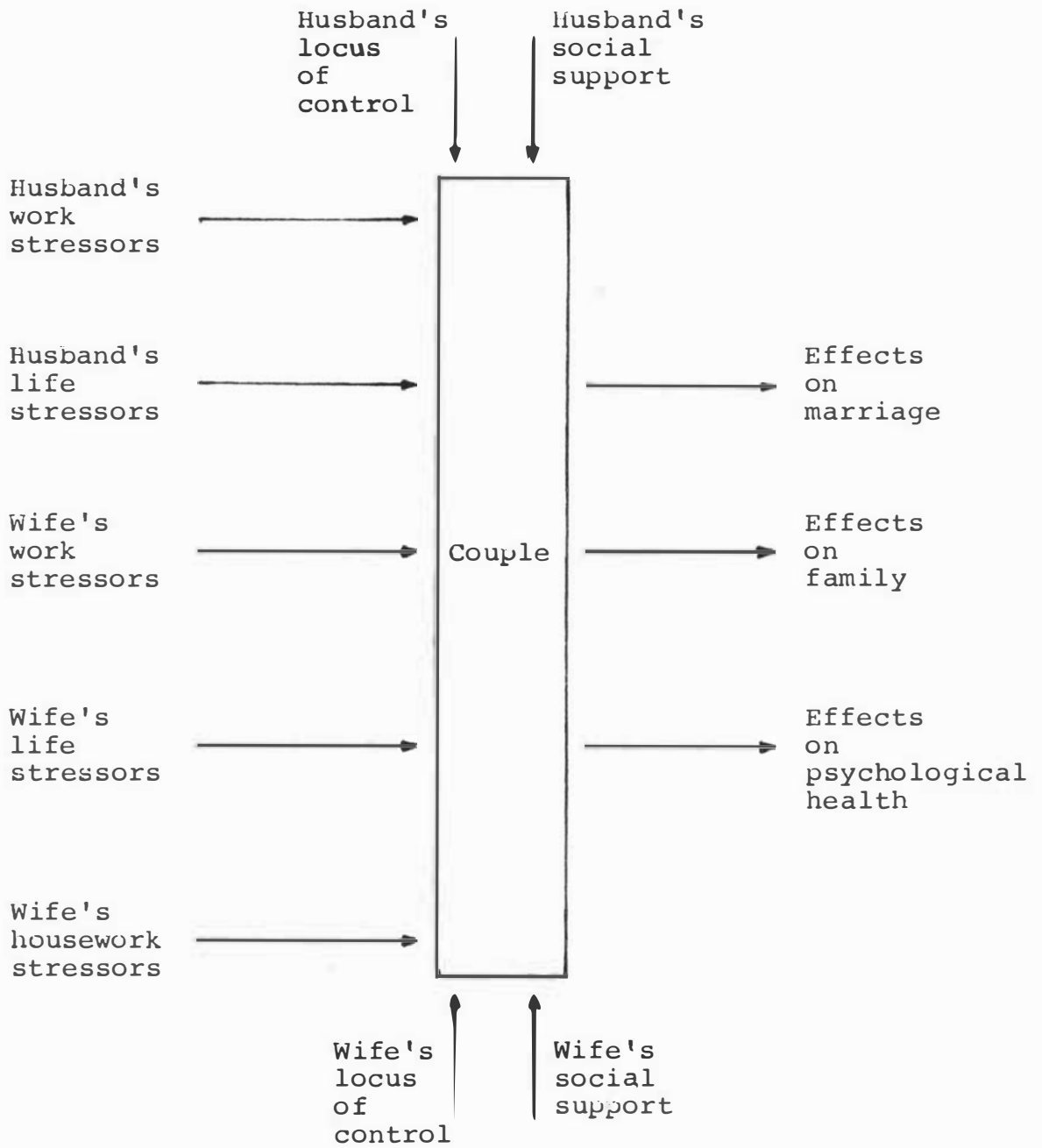
The other major findings related to the importance of the various moderator variables. The regression analysis showed that the moderator variables made a significant contribution to the amount of explained variance for eight of the ten criterion variables. For two of the variables, the wife's perception of marital stress and the wife's perception of marital communication, the contribution was over thirty percent.

The correlational analysis showed that the husband's perceived social support over almost all the variables, was significantly related to all five criterion variables. For husbands, social support was an important factor in general. The importance of the relationship was particularly strong for the impact of the husband's job on the family, marital stress, and marital communication, with both the husband's and wife's perceptions of these variables being significantly related. However, for the wife's perception of social support, the main area of relationship was with the criterion variable assessing marital stress. The number of significant relationships between the wife's perceptions of support and the criterion variables was considerably less than for the husband's perceptions of support. These findings confirm the results from the literature, outlined in Section 3, that social support has an important moderating effect on the effects of occupational stressors. Both Cooper (1981) and Wells (1982) have confirmed the importance of support by supervisor as a buffering effects, while Abdel-Halim (1982) has shown the positive effect of both co-worker support and supervisor support. In addition, Burke and Weir (1975, 1977a) have indicated the positive effects of support from the spouse.

The locus of control measure showed only three significant relationships as indicated by the correlational analysis. These were between the husband's locus of control and his level of psychological health, and the wife's locus of control and her levels of marital stress and psychological health. Although this shows some limited support for the moderating effects of locus of control, the effect is not strong and appears to be related to specific response patterns, rather than as an overall moderator. The negative relationship between locus of control and psychological health suggests that this personality variable is an important moderator of effects within the individual. The absence, in general, of its moderator effects on "external" factors such as interpersonal relationships may suggest a possible explanation. The personality factor may play a more important moderating role with internal effects than with the effects on interpersonal relationships. A number of other studies have found evidence for the moderating effects of locus of control on anxiety (Organ, 1976), task performance (Houston, 1972), role stress (Keenan and McBain, 1979), and cardiovascular health (Brousseau and Mallinger, 1981) (see also Section 3.2).

The results and discussion presented above leads to an extended and amplified version of the three-factor model suggested in Section 1. This amplified model is shown in Figure 7.1. The distinction between the three factors of stressors, moderators and effects has been retained. The arguments for its usefulness, presented in Section 1.1, have been empirically confirmed in the study reported.

The major implications of such an amplified model are the importance of assessing stress from a range of sources. Where effects on the family are being gauged, it is important that both occupational



Stressors ——— {Moderators} ———> Effects

Figure 7.1
An amplified three-factor model

and life stressors from both the husband and wife are assessed. In addition, the contribution of the stresses of the wife's housework are also important, and need to be considered. While the specific effects being observed depend on the interest of the researcher, it is clear that more empirical work needs to be done on the effects on the family. As the literature has shown (Section 3), the family is strongly effected by what occurs at work. This important area needs more investigation so that appropriate strategies for lessening the impact can be developed. As well, the importance of the moderator variables has been clearly shown. It is probable that other factors moderate the stressor --> effect link, and these moderators need to be isolated. However, the specific moderators considered here, social support and locus of control, have been shown to have considerable importance.

Such implications lead to specific suggestions for future research. Initially, a study needs to be conducted into the levels and effects of the stressors of housework, both on the wife and her family. A number of writers have begun to produce evidence of the negative effects (Ferree, 1976; Gove and Geerken, 1977; Macke, Bohrnstedt and Bernstein, 1979; Newberry, Weissman and Myers, 1979; Warr and Parry, 1982; Oldham and Wild, 1979; Wright, 1978; Weissman et al., 1973), but there is a strong need for more empirically-based research in the area.

A second major area of study needs to be concerned with the effects on the family of working wives and dual career couples, especially from the point of view of the interactive effects of stressors from a number of sources (Cooper and Davidson, 1981; Hall and Hall, 1980; Johnston, 1980). Finally, a large amount of work

remains to be done on the effects of occupational stress on the family itself. As this study (see Section 3), and a number of other reviews and articles have shown (Billings and Moos, 1982; Burke and Bradshaw, 1981; Handy, 1978; Jackson and Maslach, 1982), the dynamics of the situation are complex, and much attention needs to be paid to the interaction of organizational, extra-organizational, and personality factors.

The findings of the research presented here have important consequences for any future research into the relationship between the occupation and the home. The findings have clearly shown the importance of assessing stress from a number of areas, from both the husband's and wife's occupation, and the wife's housework. In addition, the importance of moderator variables, especially in the area of social support, has been clearly shown. Finally, the significant increases in levels of explained variance over those usually obtained in this type of research demonstrate the validity and practical usefulness of the three-factor model of stress when extended as in the present research.

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APPENDIX A

COMPOSITION OF MEASURES

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A.1 Composition of occupational stressor scales

A.1.1 Role conflict

- I have enough time to complete my work
- I have just the right amount of work to do
- I receive work to do without having enough people to help me finish it
- * I have to do a lot of things at work that should really be done differently
- * I work on unnecessary things
- At work I am able to act the same, no matter which group of people I am with
- * At work I do things that are accepted by one person but not accepted by others
- * I often have to ignore a company rule or policy in order to carry out my work
- * Quite often, if I follow one company rule, I am breaking another company rule
- * I am often told to do two conflicting things at the same time
- * I often have things to do without having enough materials to carry it out

Source Rogers and Molnar (1976)
Range 11 (low role conflict) -->
 55 (high role conflict)

A.1.2 Role ambiguity

- I know that I have divided my time at work properly
- I know what I am responsible for on my job
- I am told how well I am doing my job
- * I do not know if my work will be acceptable to my supervisors
- I have very clear planned goals on my job
- I receive a clear explanation of what has to be done in my job
- * I have to "feel my way" when doing my job
- * I have to work under very unclear orders
- I know exactly how much authority I have in my job
- * I do not have any guidelines to help me in my job
- I know exactly what is expected of me in my job

Source Rogers and Molnar (1976)
Range 11 (low role ambiguity) -->
 55 (high role ambiguity)

A.1.3 Work overload

- * There is a lot of pressure to keep up with the people I work with
- * I feel there is never enough time to do everything in my job
- * I have too many things to do in my job
- * I do not have enough time or resources to do as good a job as people expect from me
- * I feel I might not be fully qualified to handle my job

Source House and Harkins (1975)
Range 5 (low work overload) -->
 25 (high work overload)

A.1.4 Work underload

- My present job demands that I keep learning new things and improving my skills
 On my present job, I have the chance to do the things I'm best at
 My present job gives me the chance to improve and develop my own special skills and abilities
- * My present job does not require me to use my best abilities except under pressure
 - * In my present job I cannot use my skills, knowledge and abilities very much
 - * In my present job, I cannot use my own ideas very much

Source House and Harkins (1975)
Range 6 (low work underload) -->
 30 (high work underload)

A.1.5 Lack of free time:

- * I have not had a true holiday for a long time
 I can amuse myself well in my free time
 I can spend my free time doing what I want to
 At least once a year I go on a holiday and have an enjoyable time
 My holiday is a good chance to be lazy
- * I have a lot to do in my holidays because I can't do it any other time

Source Weyer and Hodapp (1976)
Range 6 (considerable free time) -->
 30 (lack of free time)

A.1.6 Co-worker conflict

My work is appreciated by other people
I am happy with the relationship I have with my
work mates

- * Between the people I work with and myself, there are frequently differences of opinion
At work I can give my opinion
- * I would prefer to work with people other than the ones I work with now

Source Weyer and Hodapp (1975)

Range 5 (low co-worker conflict) -->
25 (high co-worker conflict)

A.1.7 Job pressure

- * My job makes me feel jumpy or nervous all the time
- * My job places me under a great deal of stress
- * I find that my job makes me tense
- * My job makes me feel upset
- * I feel continuously frustrated on my job
- * I live continuously under a strain on the job
- * I feel that my job puts me under a lot of pressure

Source Buck (1972)

Range 7 (low job pressure) -->
35 (high job pressure)

- * Reversed scoring

A.2 Composition of the life events scale

Marriage

Detention in jail or similar institution for a criminal offense

Death of wife/husband

Major change in sleeping habits (much more or much less sleep)

Death of a close family member

Major change in eating habits (much more or much less food intake)

Foreclosure on mortgage or loan

Death of a close friend

Outstanding personal achievement

Minor law violations (traffic tickets, disturbing the peace, etc.)

Wife or girlfriend's pregnancy/Pregnancy

Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)

New job

Serious illness or injury of close family member

Sexual difficulties

Trouble with employer (in danger of losing job, being suspended, demoted, etc.)

Trouble with in-laws

Major change in financial status (a lot better off or a lot worse off)

Major change in closeness of family members (a lot more or a lot less close)

Gaining a new family member (through birth, adoption, family member moving in, etc.)

Change of residence

Separation from wife/husband (due to conflict)

Major change in church activities (increased or decreased attendance)

Reconciliation with wife/husband

Major change in number of arguments with wife/husband (a lot more or a lot less arguments)

Change in wife's/husband's work outside the home (beginning work, ceasing work, changing to a new job, etc.)

Major change in usual type and/or amount of recreation

Borrowing more than \$10,000 (buying home, business, etc.)

Borrowing less than \$10,000 (buying car, TV, etc.)

Being fired from job

Wife or girlfriend having abortion/Having abortion

Major personal illness or injury

Major change in social activities e.g. parties, movies, visiting (increased or decreased participation)

Major change in living condition of family (building new home, remodeling, deterioration of home, etc.)

Divorce

Serious injury or illness of close friend

Son or daughter leaving home (due to marriage, schooling, etc.)

Separation from wife/husband (due to work, travel, etc.)

Source Johnson and Sarason (1979)

A.3 Factor structure of the stressors of housework scale

	Factor I	Factor II	Factor III	Factor IV
<u>Boredom</u>				
Often bored with housework	.82	.05	.09	.16
Have an aversion to housework	.80	.04	.01	.15
Daily monotony gets on nerves	.69	.23	.10	.12
Difficult to concentrate on work	.59	.03	.04	.02
Housework not fulfilling	.51	.07	.02	.00
Don't get on with housework	.44	-.07	.03	.33
Want more variety in work	.29	.21	.09	-.03
In general housework is fun	-.71	-.07	-.03	-.05
<u>Physical effort</u>				
Housework brings tension	.25	.64	.18	.20
Work is physically exhausting	.06	.61	-.02	.10
Exhausted after a day's work	.04	.56	.06	.17
Hardly possible to switch off	-.02	.36	.29	.15
Find it unjust that not paid	.16	.33	.01	.15
Get into sweat when working	.01	.30	.05	.27
<u>Lack of free time</u>				
Not had holiday for a long time	.06	.08	.80	.06
Have holiday once a year	-.09	-.04	-.85	-.04
<u>Task overload</u>				
Sometimes housework is too much	.39	.28	.08	.61
Work not able to be done in day	.06	.12	.03	.57
Cannot cope with demands	.29	.28	.07	.53
Eigenvalue	6.19	2.31	1.36	1.16
Percent of common variance	44.0%	16.4%	9.6%	8.3%

A.4 Composition of the perceived effects scales

A.4.1 Effects on the family

My wife/husband is unhappy with the number of times we've had to move for the sake of my career

My job makes it difficult for us to spend time and do things together

Because of my job I don't have much energy left for anything outside of work

My job makes it difficult for us to have the kind of social life my wife/husband would like to have

Because of my job my wife/husband doesn't find it easy to get out and make new friends

My job makes it difficult for my wife/husband to keep up her/his relationships and go out with her/his friends

My job makes it difficult for me to help much in bringing up the children

Because of my job, I don't get involved much in keeping the family close and not letting it drift apart

Because of my job, I don't spend much time worrying about big decisions related to our home life

Our family has expressed unhappiness with the number of times we've had to move because of my job

Because of my job, my wife/husband can't attend family reunions and get together as much as she/he would like

We find it difficult to use and enjoy any vacation time without some interference from my job

We find it difficult to use and enjoy our weekends without some interference from my job

My present position makes it difficult for me to relax when I am away from work

My present position makes it difficult for us to visit our relatives

Because of my job my wife/husband finds it difficult to commit herself/himself to self-improvement or self-development activities

Because of my present job I find it difficult to find time and energy for leisure pursuits

My present job interferes with our involvement in community activities

My job interferes with our maintaining or developing friendships

My job leaves my wife/husband alone more than she/he would like because the work demands so much time

Because of my job my wife/husband and I have different opinions on how the children should be brought up

My job has made it difficult for us to go on a "real vacation" together

My wife/husband is concerned about what my present job is doing to my health

For the sake of my job, my wife/husband has had to move away from her/his friends and/or relatives who are important to her/him

Because of my work demands, my wife/husband has had to take on more responsibility for managing the household and family than she/he would like

My job makes it difficult for us to plan to do things together

- Because of my job, our social life has dwindled to almost nothing
 I frequently express concern about my safety in my present job
 We always have to be on our best behaviour because of my job
 My wife/husband is tired of making new starts in new
 neighbourhoods, with new people, because of my job
 Because of my position, we sometimes have to socialize with
 people that my wife/husband feels somewhat inferior or
 inadequate with
 Because of my job, our relationship suffers
 I am sometimes angry and irritable at home because of things that
 happen at work
 My children are sometimes given a hard time by their peers
 because of my job
 I often express concern for what this job is doing to my health
 My work ties us down and restricts our personal life too much
 My children often express (or have expressed) unhappiness about
 the time I spend at work
- * My present position does not interfere with our home or family
 life in any way
 When I get home after a typical day I am too tired to do very
 much with the family
 When I am at home with the family my wife/husband often finds
 me thinking about things at work and not paying attention to
 them
 Our personal plans are often interfered with because I am
 called away to deal with problems at work
 Because of the heavy demands of my job I am not spending as
 much time with our family as my wife/husband would like me to
 I must always be on best behaviour and can't relax like people
 in other jobs
 The demands of the job make it difficult for me to maintain a
 close relationship with our children
 Because of my position, the community expects my children to
 be better behaved
 I treat the children differently to my wife/husband because
 of my job
 I have been called when away on holidays to deal with problems
 at my workplace
 The demands of my job make it hard to give much attention to
 our relationship
 The job makes it hard for me to be the kind of husband/wife my
 wife/husband would like me to be
 The job makes it hard for me to be the kind of father/mother
 my wife/husband would like me to be
 My wife/husband is frequently concerned about my safety because
 of my position
 My job makes it difficult for me to spend time and do things
 with our children

Source Burke, Weir and DuWors (1980b)
Range 52 (low impact) -->
 260 (high impact)

* All items reversed scoring except this item

A.4.2 Effects on marital adjustment

Marital communication

- Does your wife/husband have a tendency to say things which would be better left unsaid?
- Do you find your wife's/husband's tone of voice irritating?
- Does your wife/husband complain that you don't understand her/him?
- Does your wife/husband insult you when she/he gets angry with you?
- Does your wife/husband nag you?
- Do you feel your wife/husband says one thing but means another?
- Does your wife/husband accuse you of not listening to what she/he says?
- Do you fail to disagree with your wife/husband because you're afraid she'll/he'll get angry?
- Does it upset you a great deal when your wife/husband gets angry with you?
- Do you hesitate to discuss certain things with your wife/husband because you're afraid she/he might hurt your feelings?
- Do you find it difficult to express your true feelings to her/him?
- Is it easier to confide in a friend rather than your wife/husband?
- Do you pretend you're listening to your wife/husband when actually you are not really listening?

Source Schumm, Figley and Jurich (1979)
Range 13 (low communication) -->
 65 (high communication)

Marital stress

- * Sometimes it is really good when I am alone for awhile
- Equal sharing of the household duties works well
- I think my wife/husband is happy in marriage
- * My wife/husband doesn't listen to me when I have problems
- * I worry about the health of my wife/husband
- * I think many other marriages are happier than ours
- * I sometimes wish that my wife/husband would understand me better
- My wife/husband agrees with me in general on the more important questions of life
- * I sometimes think about whether our marriage should continue
- Family life is a good balance for daily work
- * Marriage brings more stress and tension than I had imagined it would
- * Between my wife/husband and I there are often differences of opinion on financial matters
- * I want a little more consideration when things are going wrong for me

Source Weyer and Hodapp (1975)
Range 13 (low stress) -->
 65 (high stress)

* Reversed scoring

A.4.3 Effects on psychological health

- Have you recently been able to concentrate on whatever you're doing?
- Have you recently lost much sleep over worry?
- Have you recently felt you are playing a useful part in things?
- Have you recently felt capable of making decisions about things
- Have you recently felt constantly under strain?
- Have you recently felt you couldn't overcome your difficulties?
- Have you recently been able to enjoy your normal day-to-day activities?
- Have you recently been able to face up to your problems?
- Have you recently been feeling unhappy and depressed?
- Have you recently been losing confidence in yourself?
- Have you recently been thinking of yourself as a worthless person?
- Have you recently been feeling happy, all things considered?

Source Goldberg (1972)

A.5 Composition of perceived social support variables

Support from wife/husband/friends/neighbours/relations/
boss/workmates

- * My really cares about how things are going for me
- * My goes out of his/her/their way to be helpful when I'm down
- * I believe that my cares about how things are going for me personally.
- * I talk about my personal concerns and difficulties with my
- * I talk to my about the pressures and strains in my life
- * I can talk to my about my hopes, ambitions and goals
- * I can rely on my for help when things get tough
- * I talk about my personal concerns and difficulties with my
- My relationship with my is pretty superficial
- I don't talk to my about my problems or difficulties because I'm afraid he/she/they will lose his/her/their respect for me
- I don't talk to my about my problems or difficulties because I don't want to burden him/her/them

Source Burke, Weir and DuWors (1980b)

Range 11 (low support) -->
55 (high support)

Tangible support

- * I have friends who would be willing to give me a hand with household tasks and home projects
- * I have friends who would be willing to lend me money if I needed it

Source Burke, Weir and DuWors (1980b)
Range 2 (low support) -->
 10 (high support)

Global support

- I have no one to talk to about any personal problems I may be having
- * I usually talk personal problems through with at least one other person
 - * I have someone other than my wife with whom I can talk about things that bother or trouble me
 - * I have friends that I would trust with my personal secrets
 - * I have friends I can visit when I am down in the dumps
 - * I have a number of close friends in the community where I live

Source Burke, Weir and DuWors (1980b)
Range 6 (low support) -->
 30 (high support)

Willingness to seek support

- * I prefer to keep my worries and problems to myself
- * I keep all my personal worries and problems to myself

Source Burke, Weir, and DuWors (1980b)
Range 2 (low willingness) -->
 10 (high willingness)

- * Reversed scoring

APPENDIX B

QUESTIONNAIRES

MASSEY
UNIVERSITY



DEPARTMENT
OF
PSYCHOLOGY

(HUSBAND)

This questionnaire has been designed in the Psychology Department at Massey University, to look at the effects of your job and your wife's job (if working) on your family.

NO OTHER PERSON APART FROM RESEARCH TEAM MEMBERS
WILL EVER SEE YOUR COMPLETED QUESTIONNAIRE

As you can see, your name does not appear anywhere on the questionnaire, so it is completely confidential. When completed, the questionnaires will be sent to Massey University, where the information in them will be analyzed by computer. The questionnaires will then be destroyed.

If your wife works (apart from housework), you will need to fill out all four sections. If she does not work, you will need to fill out the first three sections (Sections A, B, and C).

BEFORE STARTING, PLEASE READ
=====
THESE INSTRUCTIONS CAREFULLY
=====

1. The same questionnaire is also being given to your wife. To make sure the study is of value, it is very important that you do your own questionnaire without any discussion with your wife. We need your personal opinion.

* PLEASE DO YOUR OWN QUESTIONNAIRE *
* WITHOUT ANY DISCUSSION WITH YOUR WIFE *

2. There are quite a few different scales in the questionnaire, and each scale has the instructions written at the top. It is important that you follow these instructions carefully.

PLEASE READ ALL INSTRUCTIONS CAREFULLY

3. At the side of each page, there are boxes with numbers under them. These are for the computer analysis of the questionnaire. Please do not write in these boxes.

Thank you for your help in doing this questionnaire. Please return it, as soon as possible, in the stamped addressed envelope provided.

SECTION A

1. What is your occupation?

2. Does this job take you away from your house for most of the day?

Yes	1
No	0

3. How many hours a week would you spend at your job?

_____ hours

4. How long have you been in your present job?

_____ years _____ months

5. What age are you?

_____ years _____ months

6. To what ethnic group do you consider yourself to belong?

New Zealand Maori	1
New Zealand European	2
United Kingdom	3
Other European	4
Other (write below) _____	5

7. Considering all aspects of your present job and location, how satisfied are you in staying in your present job?

Very satisfied	1
Satisfied	2
Uncertain	3
Dissatisfied	4
Very dissatisfied	5

CARD 1

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8. If you were offered another job, with similar or better pay and conditions, would you take it?

Yes	1
No	0

Could you give your reasons for your answer?

9. How many children do you have:

Living away from home _____ children

Living at home _____ children

If you have children living at home, what are their ages?

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

10. How long have you been married?

_____ years _____ months

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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Listed below are a number of events which sometimes bring about changes in the lives of those who experience them and which need some adjustment. Please mark those events that have happened to you in the LAST TWELVE MONTHS. If the event has not happened to you in the last twelve months, please just leave it unmarked.

For each event that has happened, show whether it has had a good or a bad effect by circling the appropriate letter.

Circle the G for a good effect.

Circle the B for a bad effect.

Also for each event that has happened, show how much impact it has had on you by circling the appropriate letter.

Circle the N for no impact.

Circle the S for a slight impact.

Circle the M for a moderate impact.

Circle the E for an extreme impact.

CARD 2

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1. Marriage.	G B	N S M E
2. Detention in jail or similar institution for a criminal offence.	G B	N S M E
3. Death of wife.	G B	N S M E
4. Major change in sleeping habits (much more or much less sleep).	G B	N S M E
5. Death of close family member.		
a. Mother/Father	G B	N S M E
b. Sister/Brother	G B	N S M E
c. Grandmother/Grandfather	G B	N S M E
d. Other (specify)	G B	N S M E

27. Major change in usual type and/or amount of recreation.	G B	N S M E
28. Borrowing more than \$10,000 (buying home, business, etc.).	G B	N S M E
29. Borrowing less than \$10,000 (buying car, TV, etc.).	G B	N S M E
30. Being fired from job.	G B	N S M E
31. Wife or girlfriend having abortion.	G B	N S M E
32. Major personal illness or injury.	G B	N S M E
33. Major change in social activities e.g. parties, movies, visiting (increased or decreased participation).	G B	N S M E
34. Major change in living conditions of family (building new home, remodeling, deterioration of home, etc.).	G B	N S M E
35. Divorce.	G B	N S M E
36. Serious injury or illness of close friend.	G B	N S M E
37. Son or daughter leaving home (due to marriage, schooling, etc.).	G B	N S M E
38. Separation from wife (due to work, travel, etc.).	G B	N S M E

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 35 36

Other recent experiences which have had an impact on your life. List and rate.

39. _____	G B	N S M E
40. _____	G B	N S M E
41. _____	G B	N S M E
42. _____	G B	N S M E

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of sentences lettered A or B. Please select the one sentence of each pair (AND ONLY ONE) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief, obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Put a circle around the letter next to the sentence to show which of the pair you have chosen as the more true sentence.

In some instances you may find that you believe both statements or neither one. In such, be sure to select the ONE you more strongly believe to be the case as far as you're concerned. Also try to answer each item independently when making your choice, do not be influenced by your previous choices.

CIRCLE EITHER A OR B, BUT NOT BOTH.

1. A Many of the unhappy things in people's lives are partly due to bad luck.

or

B People's misfortunes result from the mistakes they make.

37

2. A One of the major reasons why we have wars is because people don't take enough interest in politics.

or

B There will always be wars, no matter how hard people try to prevent them.

38

3. A In the long run people get the respect they deserve in this world.

or

B Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

39

4. A The idea that teachers are unfair to students is nonsense.

or

B Most students don't realize the extent to which their grades are influenced by accidental happenings.

40

5. A Without the right breaks one cannot become an effective leader.
or
B Capable people who fail to become leaders have not taken advantage of their opportunities.
6. A No matter how hard you try some people just don't like you.
or
B People who can't get others to like them don't understand how to get along with others.
7. A I have often found out that what is going to happen will happen.
or
B Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
8. A In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
or
B Many times exam questions tend to be so unrelated to course work that studying is really useless.
9. A Becoming a success is a matter of hard work, luck has little or nothing to do with it.
or
B Getting a good job depends mainly on being in the right place at the right time.
10. A The average citizen can have an influence in government decisions.
or
B This world is run by the few people in power, and there is not much the little guy can do about it.
11. A When I make plans, I am almost certain that I can make them work.
or
B It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad luck anyhow.



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12. A In my case getting what I want has little or
nothing to do with luck.
or
B Many times we might just as well decide what
to do by flipping a coin. 48
13. A Who gets to be the boss often depends on who was
lucky enough to be in the right place first.
or
B Getting people to do the right thing depends on
ability, luck has little or nothing to do with it. 49
14. A As far as world affairs are concerned, most of us are the
victims of forces we can neither understand, nor control.
or
B By taking an active part in political and social
affairs, the people can control world events. 50
15. A Most people don't realize the extent to which their
lives are controlled by accidental happenings.
or
B There really is no such thing as "luck". 51
16. A It is hard to know whether or not a person
really likes you.
or
B How many friends you have depends upon how nice a
person you are. 52
17. A In the long run the bad things that happen to us are
balanced by the good ones.
or
B Most misfortunes are the result of lack of ability,
ignorance, laziness, or all three. 53
18. A With enough effort we can wipe out political
corruption.
or
B It is difficult for people to have much control over
things politicians do in office. 54

19. A Sometimes I can't understand how teachers arrive at the grades they give.
or
B There is a direct connection between how hard people study and the grades they get. 55
20. A Many times I feel that I have little influence over the things that happen to me.
or
B It is impossible for me to believe that chance or luck plays an important role in my life. 56
21. A People are lonely because they don't try to be friendly.
or
B There's not much use in trying too hard to please people, if they like you they like you. 57
22. A What happens to me is my own doing.
or
B Sometimes I feel that I don't have enough control over the direction my life is taking. 58
23. A Most of the time I can't understand why politicians behave the way they do.
or
B In the long run the people are responsible for bad government on a national level as well as on a local level. 59

SECTION B

This section has a list of statements about your wife, friends and other people you know. Read each statement and decide how true it is for you. Then draw a circle around the letter which best describes this.

CARD 4

Circle VT if it is very true.

Circle ST if it is somewhat true.

Circle LT if it is a little true.

Circle NT if it is not too true.

Circle NAA if it is not at all true.

1. I have no one to talk to about any personal problems I may be having.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
2. I don't talk to my neighbours about my problems or difficulties because I don't want to burden them.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
3. I usually talk personal problems through with at least one other person.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
4. My wife really cares about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
5. My relationship with my wife is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
6. My wife goes out of her way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
7. My friends go out of their way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
8. I have friends who would be willing to give me a hand with household tasks and home projects.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
9. My boss is willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
10. I talk about my personal concerns and difficulties with my relations.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
11. I believe that my wife cares about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
12. My friends really care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
13. I talk to my boss about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
14. I believe that my neighbours care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
15. I believe that my friends care about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>

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16. My neighbours go out of their way to be helpful when I'm down.	VT	ST	LT	NT	NAA	
17. I talk to my friends about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
18. My neighbours really care about how things are going for me.	VT	ST	LT	NT	NAA	20 <input type="checkbox"/>
19. I believe that my boss cares about how things are going for me personally.	VT	ST	LT	NT	NAA	21 <input type="checkbox"/>
20. My wife is willing to listen to my personal problems.	VT	ST	LT	NT	NAA	22 <input type="checkbox"/>
21. My relationship with my neighbours is pretty superficial.	VT	ST	LT	NT	NAA	23 <input type="checkbox"/>
22. My boss really cares about how things are going for me.	VT	ST	LT	NT	NAA	24 <input type="checkbox"/>
23. I can rely on my friends for help when things get tough.	VT	ST	LT	NT	NAA	25 <input type="checkbox"/>
24. My boss goes out of his/her way to be helpful when I'm down.	VT	ST	LT	NT	NAA	26 <input type="checkbox"/>
25. I can talk to my wife about the pressures and strains in my life.	VT	ST	LT	NT	NAA	27 <input type="checkbox"/>
26. I have someone other than my wife with whom I can talk about things that bother or trouble me.	VT	ST	LT	NT	NAA	28 <input type="checkbox"/>
27. I can talk to my wife about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	29 <input type="checkbox"/>
28. I don't talk to my workmates about my problems or difficulties because I don't want to bother them.	VT	ST	LT	NT	NAA	30 <input type="checkbox"/>
29. I don't talk to my friends about my problems or difficulties because I don't want to bother them.	VT	ST	LT	NT	NAA	31 <input type="checkbox"/>
30. I have friends who would be willing to lend me money if I needed it.	VT	ST	LT	NT	NAA	32 <input type="checkbox"/>
31. I talk to my neighbours about the pressures and strains in my life.	VT	ST	LT	NT	NAA	33 <input type="checkbox"/>
32. I can talk to my workmates about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	34 <input type="checkbox"/>
33. I talk about my personal concerns and difficulties with my workmates.	VT	ST	LT	NT	NAA	35 <input type="checkbox"/>
34. I prefer to keep my worries and problems to myself.	VT	ST	LT	NT	NAA	36 <input type="checkbox"/>
35. My relations really care about how things are going for me.	VT	ST	LT	NT	NAA	37 <input type="checkbox"/>
36. I can talk to my relations about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	38 <input type="checkbox"/>
						39 <input type="checkbox"/>
						40 <input type="checkbox"/>

37.	I can rely on my wife for help when things get tough	VT	ST	LT	NT	NAA	<input type="checkbox"/>
38.	My friends are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	41 <input type="checkbox"/>
39.	I don't talk to my boss about my problems or difficulties because I don't want to burden him/her.	VT	ST	LT	NT	NAA	42 <input type="checkbox"/>
40.	My workmates go out of their way to be helpful.	VT	ST	LT	NT	NAA	43 <input type="checkbox"/>
41.	I believe that my workmates care about how things are going for me.	VT	ST	LT	NT	NAA	44 <input type="checkbox"/>
42.	I can talk to my boss about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	45 <input type="checkbox"/>
43.	I talk to my workmates about the pressures and strains in my life.	VT	ST	LT	NT	NAA	46 <input type="checkbox"/>
44.	I don't talk to my workmates about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	47 <input type="checkbox"/>
45.	I have many friends that I would trust with my personal secrets.	VT	ST	LT	NT	NAA	48 <input type="checkbox"/>
46.	I don't talk to my relations about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	49 <input type="checkbox"/>
47.	My workmates are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	50 <input type="checkbox"/>
48.	My relationship with my friends is pretty superficial.	VT	ST	LT	NT	NAA	51 <input type="checkbox"/>
49.	My workmates really care about how things are going for me.	VT	ST	LT	NT	NAA	52 <input type="checkbox"/>
50.	I have friends I can visit when I am down in the dumps.	VT	ST	LT	NT	NAA	53 <input type="checkbox"/>
51.	My neighbours are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	54 <input type="checkbox"/>
52.	I talk about my personal concerns and difficulties with my friends.	VT	ST	LT	NT	NAA	55 <input type="checkbox"/>
53.	I talk about my personal concerns and difficulties with my wife.	VT	ST	LT	NT	NAA	56 <input type="checkbox"/>
54.	I can rely on my relations for help when things get tough.	VT	ST	LT	NT	NAA	57 <input type="checkbox"/>
55.	I keep all my personal worries and problems to myself.	VT	ST	LT	NT	NAA	58 <input type="checkbox"/>
56.	I don't talk to my relations about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	59 <input type="checkbox"/>

57. I can rely on my boss for help when things get tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
58. I can talk to my friends about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
59. I don't talk to my neighbours about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
60. My relations are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
61. I don't talk to my wife about my problems or difficulties because I'm afraid she would lose her respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
62. I talk about my personal concerns and difficulties with my neighbours.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
63. I have a number of close friends in the community where I live.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
64. I talk about my personal concerns and difficulties with my boss.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
65. I don't want to talk to my wife about my problems or difficulties because I don't want to burden her.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
66. I don't talk to my friends about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
67. My relationship with my boss is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
68. I talk to my relations about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
69. My relationship with my workmates is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
70. My relations go out of their way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
71. I can talk to my neighbours about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
72. My relationship with my relations is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
73. I don't talk to my boss about my problems or difficulties because I'm afraid he/she will lose his/her respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
74. I can rely on my workmates for help when the going gets tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
75. I can rely on my neighbours for help when the going gets tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>
76. I believe that my relations care about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>

Here are a list of statements about your work. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. I have enough time to complete my work.	SA	A	U	D	SD	<input type="checkbox"/>	1
2. My present job demands that I keep learning new things and improving my skills.	SA	A	U	D	SD	<input type="checkbox"/>	2
3. I have just the right amount of work to do.	SA	A	U	D	SD	<input checked="" type="checkbox"/>	3
4. My job makes me feel jumpy or nervous all the time.	SA	A	U	D	SD	<input type="checkbox"/>	4
5. There is a lot of pressure to keep up with the people I work with	SA	A	U	D	SD	<input type="checkbox"/>	5
6. I know that I have divided my time at work properly.	SA	A	U	D	SD	<input type="checkbox"/>	6
7. I receive work to do without having enough people to help me finish it.	SA	A	U	D	SD	<input type="checkbox"/>	7
8. On my present job, I have the chance to do the things I'm best at.	SA	A	U	D	SD	<input type="checkbox"/>	8
9. My job places me under a great deal of stress.	SA	A	U	D	SD	<input type="checkbox"/>	9
10. I have to do a lot of things at work that should really be done differently.	SA	A	U	D	SD	<input type="checkbox"/>	10
11. I work on unnecessary things.	SA	A	U	D	SD	<input type="checkbox"/>	11
12. I feel there is never enough time to do everything in my job.	SA	A	U	D	SD	<input type="checkbox"/>	12
13. I know what I am responsible for on my job.	SA	A	U	D	SD	<input type="checkbox"/>	13
14. I find that my job makes me tense.	SA	A	U	D	SD	<input type="checkbox"/>	14
15. My present job gives me the chance to improve and develop my own special skills and abilities.	SA	A	U	D	SD	<input type="checkbox"/>	15
16. I am told how well I am doing my job.	SA	A	U	D	SD	<input type="checkbox"/>	16
17. At work I am able to act the same, no matter which group of people I am with.	SA	A	U	D	SD	<input type="checkbox"/>	17
						<input type="checkbox"/>	18
						<input type="checkbox"/>	19
						<input type="checkbox"/>	20
						<input type="checkbox"/>	21

18.	My job makes me feel upset.	SA	A	U	D	SD	<input type="checkbox"/>
19.	I have too many things to do in my job.	SA	A	U	D	SD	<input type="checkbox"/>
20.	At work I do things that are accepted by one person but not accepted by others.	SA	A	U	D	SD	<input type="checkbox"/>
21.	My present job does not require me to use my best abilities except under pressure.	SA	A	U	D	SD	<input type="checkbox"/>
22.	I do not know if my work will be acceptable to my supervisors.	SA	A	U	D	SD	<input type="checkbox"/>
23.	I have very clear planned goals on my job.	SA	A	U	D	SD	<input type="checkbox"/>
24.	I feel continuously frustrated on my job.	SA	A	U	D	SD	<input type="checkbox"/>
25.	I often have to ignore a company rule or policy in order to carry out my work.	SA	A	U	D	SD	<input type="checkbox"/>
26.	I do not have enough time or resources to do as good a job as people expect from me.	SA	A	U	D	SD	<input type="checkbox"/>
27.	In my present job I cannot use my skills, knowledge and abilities very much.	SA	A	U	D	SD	<input type="checkbox"/>
28.	I live continuously under a strain on the job.	SA	A	U	D	SD	<input type="checkbox"/>
29.	Quite often, if I follow one company rule, I am breaking another company rule.	SA	A	U	D	SD	<input type="checkbox"/>
30.	I receive a clear explanation of what has to be done in my job.	SA	A	U	D	SD	<input type="checkbox"/>
31.	I have to "feel my way" when doing my job.	SA	A	U	D	SD	<input type="checkbox"/>
32.	I have to work under very unclear orders.	SA	A	U	D	SD	<input type="checkbox"/>
33.	I feel I might not be fully qualified to handle my job.	SA	A	U	D	SD	<input type="checkbox"/>
34.	I know exactly how much authority I have in my job.	SA	A	U	D	SD	<input type="checkbox"/>
35.	I am often told to do two conflicting things at the same time.	SA	A	U	D	SD	<input type="checkbox"/>
36.	In my present job, I cannot use my own ideas very much.	SA	A	U	D	SD	<input type="checkbox"/>
37.	I often have things to do without having enough materials to carry it out.	SA	A	U	D	SD	<input type="checkbox"/>
38.	I do not have any guidelines to help me in my work.	SA	A	U	D	SD	<input type="checkbox"/>
39.	I feel that my job puts me under a lot of pressure.	SA	A	U	D	SD	<input type="checkbox"/>
40.	I know exactly what is expected of me in my job.	SA	A	U	D	SD	<input type="checkbox"/>

Here is a list of statements about your work. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. I would like more variety in my job.	SA	A	U	D	SD	<input type="checkbox"/>
2. In the place where I work, there is a lot that could be improved.	SA	A	U	D	SD	<input type="checkbox"/>
3. In the evening after work I am worn out.	SA	A	U	D	SD	<input type="checkbox"/>
4. My work in general is fun.	SA	A	U	D	SD	<input type="checkbox"/>
5. I have not had a true holiday for a long time.	SA	A	U	D	SD	<input type="checkbox"/>
6. I often have headaches at work.	SA	A	U	D	SD	<input type="checkbox"/>
7. The daily monotony of the job gets on my nerves.	SA	A	U	D	SD	<input type="checkbox"/>
8. My work is appreciated by other people.	SA	A	U	D	SD	<input type="checkbox"/>
9. I can amuse myself well in my free time.	SA	A	U	D	SD	<input type="checkbox"/>
10. I work under the pressure of deadlines.	SA	A	U	D	SD	<input type="checkbox"/>
11. It is hard for me to switch off in the evenings after work.	SA	A	U	D	SD	<input type="checkbox"/>
12. I often notice that after some time at work, it is difficult for me to concentrate on my work.	SA	A	U	D	SD	<input type="checkbox"/>
13. I am often bored with my work.	SA	A	U	D	SD	<input type="checkbox"/>
14. My job pays me enough.	SA	A	U	D	SD	<input type="checkbox"/>
15. Sometimes I feel I am not equal to the demands work places on me.	SA	A	U	D	SD	<input type="checkbox"/>
16. I often have a dislike of my work.	SA	A	U	D	SD	<input type="checkbox"/>
17. I often don't progress in my work as I feel I should.	SA	A	U	D	SD	<input type="checkbox"/>
18. I am quite often disturbed when I am trying to do my work.	SA	A	U	D	SD	<input type="checkbox"/>
19. Overall my job brings with it a great deal of stress and tension.	SA	A	U	D	SD	<input type="checkbox"/>

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20.	The day's work often cannot be done in a day.	SA	A	U	D	SD	<input type="checkbox"/>	1
21.	If I could I would gladly change my job.	SA	A	U	D	SD	<input type="checkbox"/>	2
22.	At my work there is a lot of wasted time for which I am not responsible.	SA	A	U	D	SD	<input type="checkbox"/>	3
23.	Sometimes I think I expect too much from my job.	SA	A	U	D	SD	<input checked="" type="checkbox"/>	6
24.	In my work problems often occur which cannot be overcome.	SA	A	U	D	SD	<input type="checkbox"/>	4
25.	Tensions between my workmates and myself are stressful for me.	SA	A	U	D	SD	<input type="checkbox"/>	5
26.	I don't feel my job is fulfilling.	SA	A	U	D	SD	<input type="checkbox"/>	6
27.	I would like different hours of work.	SA	A	U	D	SD	<input type="checkbox"/>	7
28.	I can spend my free time doing what I want to.	SA	A	U	D	SD	<input type="checkbox"/>	8
29.	Sometimes work is just too much for me.	SA	A	U	D	SD	<input type="checkbox"/>	8
30.	At least once a year I go on a holiday and have an enjoyable time.	SA	A	U	D	SD	<input type="checkbox"/>	9
31.	I would like to get on in my job.	SA	A	U	D	SD	<input type="checkbox"/>	10
32.	I am happy with the relationship I have with my work mates.	SA	A	U	D	SD	<input type="checkbox"/>	10
33.	My holiday is a good chance to be lazy.	SA	A	U	D	SD	<input type="checkbox"/>	11
34.	Between the people I work with and myself, there are frequently differences of opinion.	SA	A	U	D	SD	<input type="checkbox"/>	12
35.	I would like to get promoted in my job.	SA	A	U	D	SD	<input type="checkbox"/>	13
36.	I sometimes wish I was doing something easier.	SA	A	U	D	SD	<input type="checkbox"/>	13
37.	I have a lot to do in my holidays because I can't do it any other time.	SA	A	U	D	SD	<input type="checkbox"/>	14
38.	At work I can give my opinion.	SA	A	U	D	SD	<input type="checkbox"/>	15
39.	I have a good chance of reaching a higher position in my job.	SA	A	U	D	SD	<input type="checkbox"/>	15
40.	I would prefer to work with people other than the ones I work with now.	SA	A	U	D	SD	<input type="checkbox"/>	16
41.	I have done most of what I wanted to, in my job.	SA	A	U	D	SD	<input type="checkbox"/>	17
42.	I have already been through worse times than I am having now in my job.	SA	A	U	D	SD	<input type="checkbox"/>	18
43.	Most of the time I am happy to go to work.	SA	A	U	D	SD	<input type="checkbox"/>	19

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Here are some items which relate to how your present job may affect your family, home and personal life. Read each statement and then circle the letter which best represents the amount you agree with each statement.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

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|-----|--|----|---|---|---|----|--------------------------|
| 1. | My wife is unhappy with the number of times we've had to move for the sake of my career. | SA | A | U | D | SD | <input type="checkbox"/> |
| 2. | My job makes it difficult for us to spend time and do things together. | SA | A | U | D | SD | <input type="checkbox"/> |
| 3. | Because of my job I don't have much energy left for anything outside of work. | SA | A | U | D | SD | <input type="checkbox"/> |
| 4. | My job makes it difficult for us to have the kind of social life my wife would like to have. | SA | A | U | D | SD | <input type="checkbox"/> |
| 5. | Because of my job my wife doesn't find it easy to get out and make new friends. | SA | A | U | D | SD | <input type="checkbox"/> |
| 6. | My job makes it difficult for my wife to keep up her relationships and go out with her friends. | SA | A | U | D | SD | <input type="checkbox"/> |
| 7. | My job makes it difficult for me to help much in bringing up the children. | SA | A | U | D | SD | <input type="checkbox"/> |
| 8. | Because of my job, I don't get involved much in keeping the family close and not letting it drift apart. | SA | A | U | D | SD | <input type="checkbox"/> |
| 9. | Because of my job, I don't spend much time worrying about big decisions related to our home life. | SA | A | U | D | SD | <input type="checkbox"/> |
| 10. | Our family has expressed unhappiness with the number of times we've had to move because of my job. | SA | A | U | D | SD | <input type="checkbox"/> |
| 11. | Because of my job, my wife can't attend family reunions and get together as much as she would like | SA | A | U | D | SD | <input type="checkbox"/> |

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|-----|---|----|---|---|---|----|--------------------------|----|
| 12. | We find it difficult to use and enjoy any vacation time without some interference from my job. | SA | A | U | D | SD | <input type="checkbox"/> | 40 |
| 13. | We find it difficult to use and enjoy our weekends without some interference from my job. | SA | A | U | D | SD | <input type="checkbox"/> | 41 |
| 14. | My present position makes it difficult for me to relax when I am away from work. | SA | A | U | D | SD | <input type="checkbox"/> | 42 |
| 15. | My present position makes it difficult for us to visit our relatives. | SA | A | U | D | SD | <input type="checkbox"/> | 43 |
| 16. | Because of my job my wife finds it difficult to commit herself to self-improvement or self-development activities. | SA | A | U | D | SD | <input type="checkbox"/> | 44 |
| 17. | Because of my present job I find it difficult to find time and energy for leisure pursuits. | SA | A | U | D | SD | <input type="checkbox"/> | 45 |
| 18. | My present job interferes with our involvement in community activities. | SA | A | U | D | SD | <input type="checkbox"/> | 46 |
| 19. | My job interferes with our maintaining or developing friendships. | SA | A | U | D | SD | <input type="checkbox"/> | 47 |
| 20. | My job leaves my wife alone more than she would like because the work demands so much time. | SA | A | U | D | SD | <input type="checkbox"/> | 48 |
| 21. | Because of my job my wife and I have different opinions on how the children should be brought up. | SA | A | U | D | SD | <input type="checkbox"/> | 49 |
| 22. | My job has made it difficult for us to have a "real vacation" together. | SA | A | U | D | SD | <input type="checkbox"/> | 50 |
| 23. | My wife is concerned about what my present job is doing to my health. | SA | A | U | D | SD | <input type="checkbox"/> | 51 |
| 24. | For the sake of my job, my wife has had to move away from her friends and/or relatives who are important to her. | SA | A | U | D | SD | <input type="checkbox"/> | 52 |
| 25. | Because of my work demands, my wife has had to take on more responsibility for managing the household and family than she would like. | SA | A | U | D | SD | <input type="checkbox"/> | 53 |
| 26. | My job makes it difficult for us to plan to do things together. | SA | A | U | D | SD | <input type="checkbox"/> | 54 |

27.	Because of my job, our social life has dwindled to almost nothing.	SA	A	U	D	SD	<input type="checkbox"/>	55
28.	I frequently express concern about my safety in my present job.	SA	A	U	D	SD	<input type="checkbox"/>	56
29.	We always have to be on our best behaviour because of my job.	SA	A	U	D	SD	<input type="checkbox"/>	57
30.	My wife is tired of making new starts in new neighbourhoods, with new people, because of my job.	SA	A	U	D	SD	<input type="checkbox"/>	58
31.	Because of my position, we sometimes have to socialize with people that my wife feels somewhat inferior or inadequate with.	SA	A	U	D	SD	<input type="checkbox"/>	59
32.	Because of my job, our relationship suffers.	SA	A	U	D	SD	<input type="checkbox"/>	60
33.	I am sometimes angry and irritable at home because of things that happen at work.	SA	A	U	D	SD	<input type="checkbox"/>	61
34.	My children are sometimes given a hard time by their peers because of my job.	SA	A	U	D	SD	<input type="checkbox"/>	62
35.	I often expresses concern for what this job is doing to my health.	SA	A	U	D	SD	<input type="checkbox"/>	63
36.	My work ties us down and restricts our personal life too much.	SA	A	U	D	SD	<input type="checkbox"/>	64
37.	My children often express (or have expressed) unhappiness about the time I spend at work.	SA	A	U	D	SD	<input type="checkbox"/>	65
38.	My present position does not interfere with our home or family life in any way.	SA	A	U	D	SD	<input type="checkbox"/>	66
39.	When I get home after a typical day I am too tired to do very much with the family.	SA	A	U	D	SD	<input type="checkbox"/>	67
40.	When I am at home with the family my wife often finds me thinking about things at work and not paying attention to them.	SA	A	U	D	SD	<input type="checkbox"/>	68
41.	Our personal plans are often interfered with because I am called away to deal with problems at work.	SA	A	U	D	SD	<input type="checkbox"/>	69

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|-----|--|----|---|---|---|----|--------------------------|----|
| 42. | Because of the heavy demands of my job I am not spending as much time with our family as my wife would like me to. | SA | A | U | D | SD | <input type="checkbox"/> | 70 |
| 43. | I must always be on best behaviour and can't just relax like people in other jobs. | SA | A | U | D | SD | <input type="checkbox"/> | 71 |
| 44. | The demands of my job make it difficult for me to maintain a close relationship with our children. | SA | A | U | D | SD | <input type="checkbox"/> | 72 |
| 45. | Because of my position, the community expects my children to be better behaved. | SA | A | U | D | SD | <input type="checkbox"/> | 73 |
| 46. | I treat the children differently to my wife because of my job. | SA | A | U | D | SD | <input type="checkbox"/> | 74 |
| 47. | I have been called when away on holidays to deal with problems at my workplace. | SA | A | U | D | SD | <input type="checkbox"/> | 75 |
| 48. | The demands of my job make it hard to give much attention to our relationship. | SA | A | U | D | SD | <input type="checkbox"/> | 76 |
| 49. | My job makes it hard for me to be the kind of husband my wife would like me to be. | SA | A | U | D | SD | <input type="checkbox"/> | 77 |
| 50. | My job makes it hard for me to be the kind of father my wife would like me to be. | SA | A | U | D | SD | <input type="checkbox"/> | 78 |
| 51. | My wife is frequently concerned about my safety because of my position. | SA | A | U | D | SD | <input type="checkbox"/> | 79 |
| 52. | My job makes it difficult for me to spend time and do things with our children. | SA | A | U | D | SD | <input type="checkbox"/> | 80 |

SECTION C

We would like to know if you have had any medical complaints, and how your health has been in general, OVER THE PAST FEW WEEKS. Please answer all questions below simply by underlining the answer which you think most nearly applies to you. Remember, we want to know about present or recent complaints, not those you had in the past.

1. Have you recently been able to concentrate on whatever you're doing?

Better than usual	Same as usual	Less than usual	Much less than usual
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2. Have you recently lost much sleep over worry?

Not at all	No more than usual	Rather more than usual	Much more than usual
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3. Have you recently felt you are playing a useful part in things?

More so than usual	Same as usual	Less useful than usual	Much less useful
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4. Have you recently felt capable of making decisions about things?

More so than usual	Same as usual	Less so than usual	Much less capable
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5. Have you recently felt constantly under strain?

Not at all	No more than usual	Rather more than usual	Much more than usual
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6. Have you recently felt you couldn't overcome your difficulties?

Not at all	No more than usual	Rather more than usual	Much more than usual
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7. Have you recently been able to enjoy your normal day-to-day activities?

More so than usual	Same as usual	Less so than usual	Much less than usual
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8. Have you recently been able to face up to your problems?

More so than usual	Same as usual	Less able than usual	Much less able
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9. Have you recently been feeling unhappy and depressed?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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13

10. Have you recently been losing confidence in yourself?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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14

11. Have you recently been thinking of yourself as a worthless person?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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15

12. Have you recently been feeling happy, all things considered?

More so than usual	About same as usual	Less so than usual	Much less happy	<input type="checkbox"/>
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16

This section asks questions about your relationship with your wife. Please read each question and then answer it by underlining the answer which you think most nearly applies to you.

1. Does your wife have a tendency to say things which would be better left unsaid?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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17

2. Do you find your wife's tone of voice irritating?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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18

3. Does your wife complain that you don't understand her?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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19

4. Does your wife insult you when she gets angry with you?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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5. Does your wife nag you?
 All the time Quite a bit Sometimes A little Not at all
 21
6. Do you feel your wife says one thing but means another?
 All the time Quite a bit Sometimes A little Not at all
 22
7. Does your wife accuse you of not listening to what she says?
 All the time Quite a bit Sometimes A little Not at all
 23
8. Do you fail to disagree with your wife because you're afraid she'll get angry?
 All the time Quite a bit Sometimes A little Not at all
 24
9. Does it upset you a great deal when your wife gets angry with you?
 All the time Quite a bit Sometimes A little Not at all
 25
10. Do you hesitate to discuss certain things with your wife because you're afraid she might hurt your feelings?
 All the time Quite a bit Sometimes A little Not at all
 26
11. Do you find it difficult to express your true feelings to her?
 All the time Quite a bit Sometimes A little Not at all
 27
12. Is it easier to confide in a friend rather than your wife?
 All the time Quite a bit Sometimes A little Not at all
 28
13. Do you pretend you're listening to your wife when actually you are not really listening?
 All the time Quite a bit Sometimes A little Not at all
 29

Here is a list of statements about your marriage. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. Sometimes it is really good when I am alone for awhile.	SA	A	U	D	SD	<input type="checkbox"/>	30
2. Equal sharing of the household duties works well.	SA	A	U	D	SD	<input type="checkbox"/>	31
3. I think that my wife is happy in marriage.	SA	A	U	D	SD	<input type="checkbox"/>	32
4. My wife doesn't listen to me when I have problems.	SA	A	U	D	SD	<input type="checkbox"/>	33
5. I worry about the health of my wife.	SA	A	U	D	SD	<input type="checkbox"/>	34
6. I think many other marriages are happier than ours.	SA	A	U	D	SD	<input type="checkbox"/>	35
7. I sometimes wish that my wife would understand me better.	SA	A	U	D	SD	<input type="checkbox"/>	36
8. My wife agrees with me in general on the more important questions of life.	SA	A	U	D	SD	<input type="checkbox"/>	37
9. I sometimes think about whether our marriage should continue.	SA	A	U	D	SD	<input type="checkbox"/>	38
10. Family life is a good balance for daily work.	SA	A	U	D	SD	<input type="checkbox"/>	39
11. Marriage brings more stress and tension than I had imagined it would.	SA	A	U	D	SD	<input type="checkbox"/>	40
12. Between my wife and I there are often differences of opinion on financial matters.	SA	A	U	D	SD	<input type="checkbox"/>	41
13. I want a little more consideration when things are going wrong for me.	SA	A	U	D	SD	<input type="checkbox"/>	42

IF YOUR WIFE WORKS
ANSWER THE NEXT SECTION.
SECTION D

Here are some items which relate to how your wife's present job may affect your family, home and personal life. Read each statement and then circle the letter which best shows the amount you agree with each statement.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

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|--|----|---|---|---|----|--------------------------|
| 1. I am unhappy with the number of times we've had to move for the sake of my wife's career. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 5 |
| 2. My wife's job makes it difficult for us to spend time and do things together. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 6 |
| 3. Because of my wife's job she doesn't have much energy left for anything outside of work. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 7 |
| 4. My wife's job makes it difficult for us to have the kind of social life I would like to have. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 8 |
| 5. Because of my wife's job I don't find it easy to get out and make new friends. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 9 |
| 6. My wife's job makes it difficult for me to keep up my relationships and go out with my friends. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 10 |
| 7. My wife's job makes it difficult for her to help much in bringing up the children. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 11 |
| 8. Because of my wife's job, she doesn't get involved much in keeping the family close and not letting it drift apart. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 12 |
| 9. Because of my wife's job, she doesn't spend much time worrying about big decisions related to our home life. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 13 |
| 10. Our family has expressed unhappiness with the number of times we've had to move because of my wife's job. | SA | A | U | D | SD | <input type="checkbox"/> |
| | | | | | | 14 |

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| 11. | Because of my wife's job, I can't attend family reunions and get together as much as I would like. | SA | A | U | D | SD | <input type="checkbox"/> | 15 |
| 12. | We find it difficult to use and enjoy any vacation time without some interference from my wife's job. | SA | A | U | D | SD | <input type="checkbox"/> | 16 |
| 13. | We find it difficult to use and enjoy our weekends without some interference from my wife's job. | SA | A | U | D | SD | <input type="checkbox"/> | 17 |
| 14. | My wife's present position makes it difficult for her to relax when she is away from work. | SA | A | U | D | SD | <input type="checkbox"/> | 18 |
| 15. | My wife's present position makes it difficult for us to visit our relatives. | SA | A | U | D | SD | <input type="checkbox"/> | 19 |
| 16. | Because of my wife's job I find it difficult for me to commit myself to self-improvement or self-development activities. | SA | A | U | D | SD | <input type="checkbox"/> | 20 |
| 17. | Because of her present job my wife finds it difficult to find time and energy for leisure pursuits. | SA | A | U | D | SD | <input type="checkbox"/> | 21 |
| 18. | My wife's present job interferes with our involvement in community activities. | SA | A | U | D | SD | <input type="checkbox"/> | 22 |
| 19. | My wife's job interferes with our maintaining or developing friendships. | SA | A | U | D | SD | <input type="checkbox"/> | 23 |
| 20. | My wife's job leaves me alone more than I would like because the work demands so much time. | SA | A | U | D | SD | <input type="checkbox"/> | 24 |
| 21. | Because of my wife's job she and I have different opinions on how the children should be brought up. | SA | A | U | D | SD | <input type="checkbox"/> | 25 |
| 22. | My wife's job has made it difficult for us to have a "real vacation" together. | SA | A | U | D | SD | <input type="checkbox"/> | 26 |
| 23. | I'm concerned about what my wife's present job is doing to her health. | SA | A | U | D | SD | <input type="checkbox"/> | 27 |
| 24. | For the sake of my wife's job, I've had to move away from my friends and/or relatives who are important to me. | SA | A | U | D | SD | <input type="checkbox"/> | 28 |
| 25. | Because of my wife's work demands, I have had to take on more responsibility for managing the household and family than I would like. | SA | A | U | D | SD | <input type="checkbox"/> | 29 |

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|-----|---|----|---|---|---|----|--------------------------|----|
| 26. | My wife's job makes it difficult for us to plan to do things together. | SA | A | U | D | SD | <input type="checkbox"/> | 30 |
| 27. | Because of my wife's job, our social life has dwindled to almost nothing. | SA | A | U | D | SD | <input type="checkbox"/> | 31 |
| 28. | My wife frequently expresses concern about her safety in her present job. | SA | A | U | D | SD | <input type="checkbox"/> | 32 |
| 29. | We always have to be on our best behaviour because of my wife's job. | SA | A | U | D | SD | <input type="checkbox"/> | 33 |
| 30. | I'm tired of making new starts in new neighbourhoods, with new people, because of my wife's job. | SA | A | U | D | SD | <input type="checkbox"/> | 34 |
| 31. | Because of my wife's position, we sometimes have to socialize with people that I feel somewhat inferior or inadequate with. | SA | A | U | D | SD | <input type="checkbox"/> | 35 |
| 32. | Because of my wife's job, our relationship suffers. | SA | A | U | D | SD | <input type="checkbox"/> | 36 |
| 33. | My wife is sometimes angry and irritable at home because of things that happen at work. | SA | A | U | D | SD | <input type="checkbox"/> | 37 |
| 34. | My children are sometimes given a hard time by their peers because of my wife's job. | SA | A | U | D | SD | <input type="checkbox"/> | 38 |
| 35. | My wife often expresses concern for what this job is doing to her health. | SA | A | U | D | SD | <input type="checkbox"/> | 39 |
| 36. | My wife's work ties us down and restricts our personal life too much. | SA | A | U | D | SD | <input type="checkbox"/> | 40 |
| 37. | My children often express (or have expressed) unhappiness about the time my wife spends at work. | SA | A | U | D | SD | <input type="checkbox"/> | 41 |
| 38. | My wife's present position does not interfere with our home or family life in any way. | SA | A | U | D | SD | <input type="checkbox"/> | 42 |
| 39. | When my wife gets home after a typical day she is too tired to do very much with the family. | SA | A | U | D | SD | <input type="checkbox"/> | 43 |
| 40. | When my wife is at home with the family I often find her thinking about things at work and not paying attention to us. | SA | A | U | D | SD | <input type="checkbox"/> | 44 |

- 41. Our personal plans are often interfered with because my wife is called away to deal with problems at work. SA A U D SD 45
- 42. Because of the heavy demands of my wife's job she is not spending as much time with our family as I'd like her to. SA A U D SD 46
- 43. My wife must always be on best behaviour and can't just relax like people in other jobs. SA A U D SD 47
- 44. The demands of my wife's job makes it difficult for her to maintain a close relationship with our children. SA A U D SD 48
- 45. Because of my wife's position, the community expects my children to be better behaved. SA A U D SD 49
- 46. My wife treats the children differently to me because of her job. SA A U D SD 50
- 47. My wife has been called when away on holidays to deal with problems at her workplace. SA A U D SD 51
- 48. The demands of my wife's job makes it hard to give much attention to our relationship. SA A U D SD 52
- 49. My wife's job makes it hard for her to be the kind of wife I'd like her to be. SA A U D SD 53
- 50. My wife's job makes it hard for her to be the kind of mother I'd like her to be. SA A U D SD 54
- 51. I'm frequently concerned about the safety of my wife because of her position. SA A U D SD 55
- 52. My wife's job makes it difficult for her to spend time and do things with our children. SA A U D SD 56

MASSEY
UNIVERSITY



DEPARTMENT
OF
PSYCHOLOGY

(WIFE)

This questionnaire has been designed in the Psychology Department at Massey University, to look at the effects of your husband's job and your job (if working) on your family.

NO OTHER PERSON APART FROM RESEARCH TEAM MEMBERS
WILL EVER SEE YOUR COMPLETED QUESTIONNAIRE

As you can see, your name does not appear anywhere on the questionnaire, so it is completely confidential. When completed, the questionnaires will be sent to Massey University, where the information in them will be analyzed by computer. The questionnaires will then be destroyed.

If you work in a job (apart from housework), you will need to fill out all four sections. If you do not work, you will need to fill out the first three sections (Sections A, B, and C).

BEFORE STARTING, PLEASE READ
=====
THESE INSTRUCTIONS CAREFULLY
=====

1. The same questionnaire is also being given to your husband. To make sure the study is of value, it is very important that you do your own questionnaire without any discussion with your husband. We need your personal opinion.

* PLEASE DO YOUR OWN QUESTIONNAIRE *
* WITHOUT ANY DISCUSSION WITH YOUR HUSBAND *

2. There are quite a few different scales in the questionnaire, and each scale has the instructions written at the top. It is important that you follow these instructions carefully.

PLEASE READ ALL INSTRUCTIONS CAREFULLY

3. At the side of each page, there are boxes with numbers under them. These are for the computer analysis of the questionnaire. Please do not write in these boxes.

Thank you for your help in doing this questionnaire. Please return it, as soon as possible, in the stamped addressed envelope provided.

SECTION A

1. What is your occupation?

2. Does this job take you away from your house for most of the day?

Yes	1
No	0

3. How many hours a week would you spend at your job?

_____ hours

4. How long have you been in your present job?

_____ years _____ months

5. What age are you?

_____ years _____ months

6. To what ethnic group do you consider yourself to belong?

New Zealand Maori	1
New Zealand European	2
United Kingdom	3
Other European	4
Other (write below)	5

7. Considering all aspects of your present job and location, how satisfied are you in staying in your present job?

Very satisfied	1
Satisfied	2
Uncertain	3
Dissatisfied	4
Very dissatisfied	5

CARD 1

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8. If you were offered another job, with similar or better pay and conditions, would you take it?

Yes	1
No	0

Could you give your reasons for your answer?

9. How many children do you have:

Living away from home _____ children

Living at home _____ children

If you have children living at home, what are their ages?

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

_____ years _____ months

10. How long have you been married?

_____ years _____ months

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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31			34

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35			38

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39			42

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43			46

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47			50

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51			54

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55			58

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59			62

Listed below are a number of events which sometimes bring about changes in the lives of those who experience them and which need some adjustment. Please mark those events that have happened to you in the LAST TWELVE MONTHS. If the event has not happened to you in the last twelve months, please just leave it unmarked.

For each event that has happened, show whether it has had a good or a bad effect by circling the appropriate letter.

Circle the G for a good effect.

Circle the B for a bad effect.

Also for each event that has happened, show how much impact it has had on you by circling the appropriate letter.

Circle the N for no impact.

Circle the S for a slight impact.

Circle the M for a moderate impact.

Circle the E for an extreme impact.

1. Marriage.	G B	N S M E	1
2. Detention in jail or similar institution for a criminal offence.	G B	N S M E	2
3. Death of husband.	G B	N S M E	3
4. Major change in sleeping habits (much more or much less sleep).	G B	N S M E	4
5. Death of close family member.			5
a. Mother/Father	G B	N S M E	6
b. Sister/Brother	G B	N S M E	7
c. Grandmother/Grandfather	G B	N S M E	8
d. Other (specify)	G B	N S M E	9
6. Major change in eating habits (much more or much less food intake).	G B	N S M E	10
			11
			12
			13
			14
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7. Foreclosure on mortgage or loan.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	23	24
8. Death of close friend.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>		
9. Outstanding personal achievement.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	25	26
10. Minor law violations (traffic tickets, disturbing the peace, etc.).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	27	28
11. Pregnancy.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	29	30
12. Changed work situation (different work responsibility, major change in working conditions, working hours, etc.).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	31	32
13. New job.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	33	34
14. Serious illness or injury of close family member.			<input type="checkbox"/>	<input type="checkbox"/>	35	36
a. Mother/Father	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>		
b. Sister/Brother	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	37	38
c. Grandmother/Grandfather	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	39	40
d. Other (specify)	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>		
15. Sexual difficulties.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	41	42
16. Trouble with employer (in danger of losing job, being suspended, demoted, etc.).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	43	44
17. Trouble with in-laws.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>		
18. Major change in financial status (a lot better off or a lot worse off).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	45	46
19. Major change in closeness of family members (a lot more or a lot less closeness).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	47	48
20. Gaining a new family member (through birth, adoption, family member moving in, etc.).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	49	51
21. Change of residence.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>		
22. Separation from husband (due to conflict).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	52	54
23. Major change in church activities (increased or decreased attendance).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	55	57
24. Reconciliation with husband.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	58	60
25. Major change in number of arguments with husband (a lot more or a lot less arguments).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	61	63
26. Change in husband's work outside the home (beginning work, ceasing work, changing to a new job, etc.)	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	64	66
27. Major change in usual type and/or amount of recreation.	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	67	69
28. Borrowing more than \$10,000 (buying home, business, etc.).	G B	N S M E	<input type="checkbox"/>	<input type="checkbox"/>	70	72

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of sentences lettered A or B. Please select the one sentence of each pair (AND ONLY ONE) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief, obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Put a circle around the letter next to the sentence to show which of the pair you have chosen as the more true sentence.

In some instances you may find that you believe both statements or neither one. In such, be sure to select the ONE you more strongly believe to be the case as far as you're concerned. Also try to answer each item independently when making your choice, do not be influenced by your previous choices.

CIRCLE EITHER A OR B, BUT NOT BOTH.

- | | | | |
|----|----|---|--------------------------------|
| 1. | A | Many of the unhappy things in people's lives are partly due to bad luck. | |
| | or | People's misfortunes result from the mistakes they make. | <input type="checkbox"/>
33 |
| 2. | A | One of the major reasons why we have wars is because people don't take enough interest in politics. | |
| | or | There will always be wars, no matter how hard people try to prevent them. | <input type="checkbox"/>
34 |
| 3. | A | In the long run people get the respect they deserve in this world. | |
| | or | Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries. | <input type="checkbox"/>
35 |
| 4. | A | The idea that teachers are unfair to students is nonsense. | |
| | or | Most students don't realize the extent to which their grades are influenced by accidental happenings. | <input type="checkbox"/>
36 |

5. A Without the right breaks one cannot become an effective leader.
or
B Capable people who fail to become leaders have not taken advantage of their opportunities. 37
6. A No matter how hard you try some people just don't like you.
or
B people who can't get others to like them don't understand how to get along with others. 38
7. A I have often found out that what is going to happen will happen.
or
B Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. 39
8. A In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
or
B Many times exam questions tend to be so unrelated to course work that studying is really useless. 40
9. A Becoming a success is a matter of hard work, luck has little or nothing to do with it.
or
B Getting a good job depends mainly on being in the right place at the right time. 41
10. A The average citizen can have an influence in government decisions.
or
B This world is run by the few people in power, and there is not much the little guy can do about it. 42
11. A When I make plans, I am almost certain that I can make them work.
or
B It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad luck anyhow. 43

12. A In my case getting what I want has little or
nothing to do with luck.
or
B Many times we might just as well decide what
to do by flipping a coin.
44
13. A Who gets to be the boss often depends on who was
lucky enough to be in the right place first.
or
B Getting people to do the right thing depends on
ability, luck has little or nothing to do with it.
45
14. A As far as world affairs are concerned, most of us are the
victims of forces we can neither understand, nor control.
or
B By taking an active part in political and social
affairs, the people can control world events.
46
15. A Most people don't realize the extent to which their
lives are controlled by accidental happenings.
or
B There really is no such thing as "luck".
47
16. A It is hard to know whether or not a person
really likes you.
or
B How many friends you have depends upon how nice a
person you are.
48
17. A In the long run the bad things that happen to us are
balanced by the good ones.
or
B Most misfortunes are the result of lack of ability,
ignorance, laziness, or all three.
49
18. A With enough effort we can wipe out political
corruption.
or
B It is difficult for people to have much control over
things politicians do in office.
50

19. A Sometimes I can't understand how teachers arrive at the grades they give.
or
B There is a direct connection between how hard people study and the grades they get. 51
20. A Many times I feel that I have little influence over the things that happen to me.
or
B It is impossible for me to believe that chance or luck plays an important role in my life. 52
21. A People are lonely because they don't try to be friendly.
or
B There's not much use in trying too hard to please people, if they like you they like you. 53
22. A What happens to me is my own doing.
or
B Sometimes I feel that I don't have enough control over the direction my life is taking. 54
23. A Most of the time I can't understand why politicians behave the way they do.
or
B In the long run the people are responsible for bad government on a national level as well as on a local level. 55

SECTION B

This section has a list of statements about your husband, friends and other people you know. Read each statement and decide how true it is for you. Then draw a circle around the letter which best describes this.

CARD 4

Circle VT if it is very true.

Circle ST if it is somewhat true.

Circle LT if it is a little true.

Circle NT if it is not too true.

Circle NAA if it is not at all true.

1.	I have no one to talk to about any personal problems I may be having.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	1
2.	I don't talk to my neighbours about my problems or difficulties because I don't want to burden them.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	2
3.	I usually talk personal problems through with at least one other person.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	3
4.	My husband really cares about how things are going for me.	VT	ST	LT	NT	NAA	<input checked="" type="checkbox"/>	4
5.	My relationship with my husband is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	5
6.	My husband goes out of his way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	6
7.	My friends go out of their way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	7
8.	I have friends who would be willing to give me a hand with household tasks and home projects.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	8
9.	My boss is willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	9
10.	I talk about my personal concerns and difficulties with my relations.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	10
11.	I believe that my husband cares about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	11
12.	My friends really care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	12
13.	I talk to my boss about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	13
14.	I believe that my neighbours care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	14
15.	I believe that my friends care about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	15

16.	My neighbours go out of their way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	20
17.	I talk to my friends about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	21
18.	My neighbours really care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	22
19.	I believe that my boss cares about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	23
20.	My husband is willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	24
21.	My relationship with my neighbours is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	25
22.	My boss really cares about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	26
23.	I can rely on my friends for help when things get tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	27
24.	My boss goes out of his/her way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	28
25.	I can talk to my husband about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	29
26.	I have someone other than my husband with whom I can talk about things that bother or trouble me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	30
27.	I can talk to my husband about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	31
28.	I don't talk to my workmates about my problems or difficulties because I don't want to bother them.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	32
29.	I don't talk to my friends about my problems or difficulties because I don't want to bother them.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	33
30.	I have friends who would be willing to lend me money if I needed it.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	34
31.	I talk to my neighbours about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	35
32.	I can talk to my workmates about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	36
33.	I talk about my personal concerns and difficulties with my workmates.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	37
34.	I prefer to keep my worries and problems to myself.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	38
35.	My relations really care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	39
36.	I can talk to my relations about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	40

37.	I can rely on my husband for help when things get tough	VT	ST	LT	NT	NAA	<input type="checkbox"/>	41
38.	My friends are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	42
39.	I don't talk to my boss about my problems or difficulties because I don't want to burden him/her.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	43
40.	My workmates go out of their way to be helpful.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	44
41.	I believe that my workmates care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	45
42.	I can talk to my boss about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	46
43.	I talk to my workmates about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	47
44.	I don't talk to my workmates about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	48
45.	I have many friends that I would trust with my personal secrets.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	49
46.	I don't talk to my relations about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	50
47.	My workmates are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	51
48.	My relationship with my friends is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	52
49.	My workmates really care about how things are going for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	53
50.	I have friends I can visit when I am down in the dumps.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	54
51.	My neighbours are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	55
52.	I talk about my personal concerns and difficulties with my friends.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	56
53.	I talk about my personal concerns and difficulties with my husband.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	57
54.	I can rely on my relations for help when things get tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	58
55.	I keep all my personal worries and problems to myself.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	59
56.	I don't talk to my relations about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	60

57.	I can rely on my boss for help when things get tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	61
58.	I can talk to my friends about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	62
59.	I don't talk to my neighbours about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	63
60.	My relations are willing to listen to my personal problems.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	64
61.	I don't talk to my husband about my problems or difficulties because I'm afraid he would lose his respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	65
62.	I talk about my personal concerns and difficulties with my neighbours.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	66
63.	I have a number of close friends in the community where I live.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	67
64.	I talk about my personal concerns and difficulties with my boss.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	68
65.	I don't want to talk to my husband about my problems or difficulties because I don't want to burden him.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	69
66.	I don't talk to my friends about my problems or difficulties because I'm afraid they will lose their respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	70
67.	My relationship with my boss is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	71
68.	I talk to my relations about the pressures and strains in my life.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	72
69.	My relationship with my workmates is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	73
70.	My relations go out of their way to be helpful when I'm down.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	74
71.	I can talk to my neighbours about my hopes, ambitions and goals.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	75
72.	My relationship with my relations is pretty superficial.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	76
73.	I don't talk to my boss about my problems or difficulties because I'm afraid he/she will lose his/her respect for me.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	77
74.	I can rely on my workmates for help when the going gets tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	78
75.	I can rely on my neighbours for help when the going gets tough.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	79
76.	I believe that my relations care about how things are going for me personally.	VT	ST	LT	NT	NAA	<input type="checkbox"/>	80

- | | | | | | | | | |
|-----|--|----|---|---|---|----|--------------------------|----|
| 11. | Because of my husband's job, I can't attend family reunions and get together as much as I would like. | SA | A | U | D | SD | <input type="checkbox"/> | 15 |
| 12. | We find it difficult to use and enjoy any vacation time without some interference from my husband's job. | SA | A | U | D | SD | <input type="checkbox"/> | 16 |
| 13. | We find it difficult to use and enjoy our weekends without some interference from my husband's job. | SA | A | U | D | SD | <input type="checkbox"/> | 17 |
| 14. | My husband's present position makes it difficult for him to relax when he is away from work. | SA | A | U | D | SD | <input type="checkbox"/> | 18 |
| 15. | My husband's present position makes it difficult for us to visit our relatives. | SA | A | U | D | SD | <input type="checkbox"/> | 19 |
| 16. | Because of my husband's job I find it difficult for me to commit myself to self-improvement or self-development activities. | SA | A | U | D | SD | <input type="checkbox"/> | 20 |
| 17. | Because of his present job my husband finds it difficult to find time and energy for leisure pursuits. | SA | A | U | D | SD | <input type="checkbox"/> | 21 |
| 18. | My husband's present job interferes with our involvement in community activities. | SA | A | U | D | SD | <input type="checkbox"/> | 22 |
| 19. | My husband's job interferes with our maintaining or developing friendships. | SA | A | U | D | SD | <input type="checkbox"/> | 23 |
| 20. | My husband's job leaves me alone more than I would like because the work demands so much time. | SA | A | U | D | SD | <input type="checkbox"/> | 24 |
| 21. | Because of my husband's job he and I have different opinions on how the children should be brought up. | SA | A | U | D | SD | <input type="checkbox"/> | 25 |
| 22. | My husband's job has made it difficult for us to have a "real vacation" together. | SA | A | U | D | SD | <input type="checkbox"/> | 26 |
| 23. | I'm concerned about what my husband's present job is doing to his health. | SA | A | U | D | SD | <input type="checkbox"/> | 27 |
| 24. | For the sake of my husband's job, I've had to move away from my friends and/or relatives who are important to me. | SA | A | U | D | SD | <input type="checkbox"/> | 28 |
| 25. | Because of my husband's work demands, I have had to take on more responsibility for managing the household and family than I would like. | SA | A | U | D | SD | <input type="checkbox"/> | 29 |

- | | | | | | | | |
|--|----|---|---|---|----|--------------------------|----|
| 41. Our personal plans are often interfered with because my husband is called away to deal with problems at work. | SA | A | U | D | SD | <input type="checkbox"/> | 45 |
| 42. Because of the heavy demands of my husband's job he is not spending as much time with our family as I'd like him to. | SA | A | U | D | SD | <input type="checkbox"/> | 46 |
| 43. My husband must always be on best behaviour and can't just relax like people in other jobs. | SA | A | U | D | SD | <input type="checkbox"/> | 47 |
| 44. The demands of my husband's job makes it difficult for him to maintain a close relationship with our children. | SA | A | U | D | SD | <input type="checkbox"/> | 48 |
| 45. Because of my husband's position, the community expects my children to be better behaved. | SA | A | U | D | SD | <input type="checkbox"/> | 49 |
| 46. My husband treats the children differently to me because of his job. | SA | A | U | D | SD | <input type="checkbox"/> | 50 |
| 47. My husband has been called when away on holidays to deal with problems at his workplace. | SA | A | U | D | SD | <input type="checkbox"/> | 51 |
| 48. The demands of my husband's job makes it hard to give much attention to our relationship. | SA | A | U | D | SD | <input type="checkbox"/> | 52 |
| 49. My husband's job makes it hard for him to be the kind of husband I'd like him to be. | SA | A | U | D | SD | <input type="checkbox"/> | 53 |
| 50. My husband's job makes it hard for him to be the kind of father I'd like him to be. | SA | A | U | D | SD | <input type="checkbox"/> | 54 |
| 51. I'm frequently concerned about the safety of my husband because of his position. | SA | A | U | D | SD | <input type="checkbox"/> | 55 |
| 52. My husband's job makes it difficult for him to spend time and do things with our children. | SA | A | U | D | SD | <input type="checkbox"/> | 56 |

SECTION C

We would like to know if you have had any medical complaints, and how your health has been in general, OVER THE PAST FEW WEEKS. Please answer all questions below simply by underlining the answer which you think most nearly applies to you. Remember, we want to know about present or recent complaints, not those you had in the past.

1. Have you recently been able to concentrate on whatever you're doing?

Better than usual	Same as usual	Less than usual	Much less than usual	<input type="checkbox"/>
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57

2. Have you recently lost much sleep over worry?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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58

3. Have you recently felt you are playing a useful part in things?

More so than usual	Same as usual	Less useful than usual	Much less useful	<input type="checkbox"/>
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59

4. Have you recently felt capable of making decisions about things?

More so than usual	Same as usual	Less so than usual	Much less capable	<input type="checkbox"/>
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60

5. Have you recently felt constantly under strain?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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61

6. Have you recently felt you couldn't overcome your difficulties?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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62

7. Have you recently been able to enjoy your normal day-to-day activities?

More so than usual	Same as usual	Less so than usual	Much less than usual	<input type="checkbox"/>
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63

8. Have you recently been able to face up to your problems?

More so than usual	Same as usual	Less able than usual	Much less able	<input type="checkbox"/>
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64

9. Have you recently been feeling unhappy and depressed?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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65

10. Have you recently been losing confidence in yourself?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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11. Have you recently been thinking of yourself as a worthless person?

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/>
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67

12. Have you recently been feeling happy, all things considered?

More so than usual	About same as usual	Less so than usual	Much less happy	<input type="checkbox"/>
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68

This section asks questions about your relationship with your husband. Please read each question and then answer it by underlining the answer which you think most nearly applies to you.

1. Does your husband have a tendency to say things which would be better left unsaid?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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2. Do you find your husband's tone of voice irritating?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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3. Does your husband complain that you don't understand him?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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4. Does your husband insult you when he gets angry with you?

All the time	Quite a bit	Sometimes	A little	Not at all	<input type="checkbox"/>
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5. Does your husband nag you?
All the time Quite a bit Sometimes A little Not at all 1
6. Do you feel your husband says one thing but means another?
All the time Quite a bit Sometimes A little Not at all 2
7. Does your husband accuse you of not listening to what he says?
All the time Quite a bit Sometimes A little Not at all 3
 4 4
8. Do you fail to disagree with your husband because you're afraid he'll get angry?
All the time Quite a bit Sometimes A little Not at all 5
9. Does it upset you a great deal when your husband gets angry with you?
All the time Quite a bit Sometimes A little Not at all 6
10. Do you hesitate to discuss certain things with your husband because you're afraid he might hurt your feelings?
All the time Quite a bit Sometimes A little Not at all 7
11. Do you find it difficult to express your true feelings to him?
All the time Quite a bit Sometimes A little Not at all 9
12. Is it easier to confide in a friend rather than your husband?
All the time Quite a bit Sometimes A little Not at all 10
13. Do you pretend you're listening to your husband when actually you are not really listening?
All the time Quite a bit Sometimes A little Not at all 11
 12
 13

Here is a list of statements about your marriage. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. Sometimes it is really good when I am alone for awhile.	SA	A	U	D	SD	<input type="checkbox"/>	14
2. Equal sharing of the household duties works well.	SA	A	U	D	SD	<input type="checkbox"/>	15
3. I think that my husband is happy in marriage.	SA	A	U	D	SD	<input type="checkbox"/>	16
4. My husband doesn't listen to me when I have problems.	SA	A	U	D	SD	<input type="checkbox"/>	17
5. I worry about the health of my husband.	SA	A	U	D	SD	<input type="checkbox"/>	18
6. I think many other marriages are happier than ours.	SA	A	U	D	SD	<input type="checkbox"/>	19
7. I sometimes wish that my husband would understand me better.	SA	A	U	D	SD	<input type="checkbox"/>	20
8. My husband agrees with me in general on the more important questions of life.	SA	A	U	D	SD	<input type="checkbox"/>	21
9. I sometimes think about whether our marriage should continue.	SA	A	U	D	SD	<input type="checkbox"/>	22
10. Family life is a good balance for daily work.	SA	A	U	D	SD	<input type="checkbox"/>	23
11. Marriage brings more stress and tension than I had imagined it would.	SA	A	U	D	SD	<input type="checkbox"/>	24
12. Between my husband and I there are often differences of opinion on financial matters.	SA	A	U	D	SD	<input type="checkbox"/>	25
13. I want a little more consideration when things are going wrong for me.	SA	A	U	D	SD	<input type="checkbox"/>	26

Here is a list of statements about your housework. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. If I had better appliances, the housework would be easier.	SA	A	U	D	SD	<input type="checkbox"/>
2. In the evening after a day's housework, I am worn out.	SA	A	U	D	SD	<input type="checkbox"/>
3. I would like more variety in the housework.	SA	A	U	D	SD	<input type="checkbox"/>
4. In general, the housework is fun.	SA	A	U	D	SD	<input type="checkbox"/>
5. For a long time I have not had a true holiday.	SA	A	U	D	SD	<input type="checkbox"/>
6. If I am not careful while doing the housework, I might have an accident.	SA	A	U	D	SD	<input type="checkbox"/>
7. The daily household monotony gets on my nerves.	SA	A	U	D	SD	<input type="checkbox"/>
8. The housework I do is appreciated by others.	SA	A	U	D	SD	<input type="checkbox"/>
9. I have plenty of opportunities to amuse myself during the day.	SA	A	U	D	SD	<input type="checkbox"/>
10. I often notice that after some time it is difficult for me to concentrate on the housework.	SA	A	U	D	SD	<input type="checkbox"/>
11. I have the opportunity to speak with someone while doing the housework.	SA	A	U	D	SD	<input type="checkbox"/>
12. I am often bored with housework.	SA	A	U	D	SD	<input type="checkbox"/>
13. I find it unjust that I am not entitled to any pay for doing the housework.	SA	A	U	D	SD	<input type="checkbox"/>
14. Sometimes I feel that I cannot cope with the demands housework places on me.	SA	A	U	D	SD	<input type="checkbox"/>

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15.	I often have a dislike of housework.	SA	A	U	D	SD
16.	I don't get on with the housework as I imagine I should.	SA	A	U	D	SD
17.	My work is physically exhausting.	SA	A	U	D	SD
18.	I am often interrupted while doing the housework.	SA	A	U	D	SD
19.	By and large, my life as a housewife brings with it a lot of stress and tension.	SA	A	U	D	SD
20.	In ten years time I suppose I will be able to do the household duties as well as now.	SA	A	U	D	SD
21.	The amount of work to be done is often not able to be done in the time available.	SA	A	U	D	SD
22.	If I had the chance I would take on a job.	SA	A	U	D	SD
23.	While doing housework, I often get into a sweat.	SA	A	U	D	SD
24.	I often wish my leisure time was more organized.	SA	A	U	D	SD
25.	The work that I do as a housewife is not fulfilling.	SA	A	U	D	SD
26.	I would like regular hours of work.	SA	A	U	D	SD
27.	Sometimes housework is just too much.	SA	A	U	D	SD
28.	At least once a year I have a real holiday and do only the things I enjoy.	SA	A	U	D	SD
29.	I am afraid that a mistake could occur in the household.	SA	A	U	D	SD
30.	I would like to do a lot of things which at the moment I simply can't.	SA	A	U	D	SD
31.	It is hardly possible for me to ever really switch off.	SA	A	U	D	SD

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IF YOU HAVE A JOB
ANSWER THE NEXT SECTION.
SECTION D

Here are a list of statements about your work. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. I have enough time to complete my work.	SA	A	U	D	SD	<input type="checkbox"/>
2. My present job demands that I keep learning new things and improving my skills.	SA	A	U	D	SD	<input type="checkbox"/>
3. I have just the right amount of work to do.	SA	A	U	D	SD	<input type="checkbox"/>
4. My job makes me feel jumpy or nervous all the time.	SA	A	U	D	SD	<input checked="" type="checkbox"/>
5. There is a lot of pressure to keep up with the people I work with	SA	A	U	D	SD	<input type="checkbox"/>
6. I know that I have divided my time at work properly.	SA	A	U	D	SD	<input type="checkbox"/>
7. I receive work to do without having enough people to help me finish it.	SA	A	U	D	SD	<input type="checkbox"/>
8. On my present job, I have the chance to do the things I'm best at.	SA	A	U	D	SD	<input type="checkbox"/>
9. My job places me under a great deal of stress.	SA	A	U	D	SD	<input type="checkbox"/>
10. I have to do a lot of things at work that should really be done differently.	SA	A	U	D	SD	<input type="checkbox"/>
11. I work on unnecessary things.	SA	A	U	D	SD	<input type="checkbox"/>
12. I feel there is never enough time to do everything in my job.	SA	A	U	D	SD	<input type="checkbox"/>
13. I know what I am responsible for on my job.	SA	A	U	D	SD	<input type="checkbox"/>
14. I find that my job makes me tense.	SA	A	U	D	SD	<input type="checkbox"/>
15. My present job gives me the chance to improve and develop my own special skills and abilities.	SA	A	U	D	SD	<input type="checkbox"/>
16. I am told how well I am doing my job.	SA	A	U	D	SD	<input type="checkbox"/>
17. At work I am able to act the same, no matter which group of people I am with.	SA	A	U	D	SD	<input type="checkbox"/>

18.	My job makes me feel upset.	SA	A	U	D	SD	<input type="checkbox"/>
19.	I have too many things to do in my job.	SA	A	U	D	SD	<input type="checkbox"/>
20.	At work I do things that are accepted by one person but not accepted by others.	SA	A	U	D	SD	<input type="checkbox"/>
21.	My present job does not require me to use my best abilities except under pressure.	SA	A	U	D	SD	<input type="checkbox"/>
22.	I do not know if my work will be acceptable to my supervisors.	SA	A	U	D	SD	<input type="checkbox"/>
23.	I have very clear planned goals on my job.	SA	A	U	D	SD	<input type="checkbox"/>
24.	I feel continuously frustrated on my job.	SA	A	U	D	SD	<input type="checkbox"/>
25.	I often have to ignore a company rule or policy in order to carry out my work.	SA	A	U	D	SD	<input type="checkbox"/>
26.	I do not have enough time or resources to do as good a job as people expect from me.	SA	A	U	D	SD	<input type="checkbox"/>
27.	In my present job I cannot use my skills, knowledge and abilities very much.	SA	A	U	D	SD	<input type="checkbox"/>
28.	I live continuously under a strain on the job.	SA	A	U	D	SD	<input type="checkbox"/>
29.	Quite often, if I follow one company rule, I am breaking another company rule.	SA	A	U	D	SD	<input type="checkbox"/>
30.	I receive a clear explanation of what has to be done in my job.	SA	A	U	D	SD	<input type="checkbox"/>
31.	I have to "feel my way" when doing my job.	SA	A	U	D	SD	<input type="checkbox"/>
32.	I have to work under very unclear orders.	SA	A	U	D	SD	<input type="checkbox"/>
33.	I feel I might not be fully qualified to handle my job.	SA	A	U	D	SD	<input type="checkbox"/>
34.	I know exactly how much authority I have in my job.	SA	A	U	D	SD	<input type="checkbox"/>
35.	I am often told to do two conflicting things at the same time.	SA	A	U	D	SD	<input type="checkbox"/>
36.	In my present job, I cannot use my own ideas very much.	SA	A	U	D	SD	<input type="checkbox"/>
37.	I often have things to do without having enough materials to carry it out.	SA	A	U	D	SD	<input type="checkbox"/>
38.	I do not have any guidelines to help me in my work.	SA	A	U	D	SD	<input type="checkbox"/>
39.	I feel that my job puts me under a lot of pressure.	SA	A	U	D	SD	<input type="checkbox"/>
40.	I know exactly what is expected of me in my job.	SA	A	U	D	SD	<input type="checkbox"/>

Here is a list of statements about your work. Please read each statement and then circle the letter to the right of the statement to show how much you agree or disagree with it.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

1. I would like more variety in my job.	SA	A	U	D	SD	<input type="checkbox"/>	45
2. In the place where I work, there is a lot that could be improved.	SA	A	U	D	SD	<input type="checkbox"/>	46
3. In the evening after work I am worn out.	SA	A	U	D	SD	<input type="checkbox"/>	47
4. My work in general is fun.	SA	A	U	D	SD	<input type="checkbox"/>	48
5. I have not had a true holiday for a long time.	SA	A	U	D	SD	<input type="checkbox"/>	49
6. I often have headaches at work.	SA	A	U	D	SD	<input type="checkbox"/>	50
7. The daily monotony of the job gets on my nerves.	SA	A	U	D	SD	<input type="checkbox"/>	51
8. My work is appreciated by other people.	SA	A	U	D	SD	<input type="checkbox"/>	52
9. I can amuse myself well in my free time.	SA	A	U	D	SD	<input type="checkbox"/>	53
10. I work under the pressure of deadlines.	SA	A	U	D	SD	<input type="checkbox"/>	54
11. It is hard for me to switch off in the evenings after work.	SA	A	U	D	SD	<input type="checkbox"/>	55
12. I often notice that after some time at work, it is difficult for me to concentrate on my work.	SA	A	U	D	SD	<input type="checkbox"/>	56
13. I am often bored with my work.	SA	A	U	D	SD	<input type="checkbox"/>	57
14. My job pays me enough.	SA	A	U	D	SD	<input type="checkbox"/>	58
15. Sometimes I feel I am not equal to the demands work places on me.	SA	A	U	D	SD	<input type="checkbox"/>	59
16. I often have a dislike of my work.	SA	A	U	D	SD	<input type="checkbox"/>	60
17. I often don't progress in my work as I feel I should.	SA	A	U	D	SD	<input type="checkbox"/>	61
18. I am quite often disturbed when I am trying to do my work.	SA	A	U	D	SD	<input type="checkbox"/>	62
19. Overall my job brings with it a great deal of stress and tension.	SA	A	U	D	SD	<input type="checkbox"/>	63

						CARD 8	
20.	The day's work often cannot be done in a day.	SA	A	U	D	SD	<input type="checkbox"/>
21.	If I could I would gladly change my job.	SA	A	U	D	SD	1 <input type="checkbox"/>
22.	At my work there is a lot of wasted time for which I am not responsible.	SA	A	U	D	SD	2 <input type="checkbox"/>
23.	Sometimes I think I expect too much from my job.	SA	A	U	D	SD	3 <input checked="" type="checkbox"/>
24.	In my work problems often occur which cannot be overcome.	SA	A	U	D	SD	4 <input type="checkbox"/>
25.	Tensions between my workmates and myself are stressful for me.	SA	A	U	D	SD	5 <input type="checkbox"/>
26.	I don't feel my job is fulfilling.	SA	A	U	D	SD	6 <input type="checkbox"/>
27.	I would like different hours of work.	SA	A	U	D	SD	<input type="checkbox"/>
28.	I can spend my free time doing what I want to.	SA	A	U	D	SD	8 <input type="checkbox"/>
29.	Sometimes work is just too much for me.	SA	A	U	D	SD	<input type="checkbox"/>
30.	At least once a year I go on a holiday and have an enjoyable time.	SA	A	U	D	SD	10 <input type="checkbox"/>
31.	I would like to get on in my job.	SA	A	U	D	SD	11 <input type="checkbox"/>
32.	I am happy with the relationship I have with my work mates.	SA	A	U	D	SD	12 <input type="checkbox"/>
33.	My holiday is a good chance to be lazy.	SA	A	U	D	SD	<input type="checkbox"/>
34.	Between the people I work with and myself, there are frequently differences of opinion.	SA	A	U	D	SD	13 <input type="checkbox"/>
35.	I would like to get promoted in my job.	SA	A	U	D	SD	14 <input type="checkbox"/>
36.	I sometimes wish I was doing something easier.	SA	A	U	D	SD	15 <input type="checkbox"/>
37.	I have a lot to do in my holidays because I can't do it any other time.	SA	A	U	D	SD	16 <input type="checkbox"/>
38.	At work I can give my opinion.	SA	A	U	D	SD	<input type="checkbox"/>
39.	I have a good chance of reaching a higher position in my job.	SA	A	U	D	SD	18 <input type="checkbox"/>
40.	I would prefer to work with people other than the ones I work with now.	SA	A	U	D	SD	19 <input type="checkbox"/>
41.	I have done most of what I wanted to, in my job.	SA	A	U	D	SD	20 <input type="checkbox"/>
42.	I have already been through worse times than I am having now in my job.	SA	A	U	D	SD	21 <input type="checkbox"/>
43.	Most of the time I am happy to go to work.	SA	A	U	D	SD	22 <input type="checkbox"/>
							23 <input type="checkbox"/>
							24 <input type="checkbox"/>

Here are some items which relate to how your present job may affect your family, home and personal life. Read each statement and then circle the letter which best represents the amount you agree with each statement.

Circle SA if you strongly agree with the statement.

Circle A if you agree with the statement.

Circle U if you neither agree nor disagree (i.e. uncertain).

Circle D if you disagree with the statement.

Circle SD if you strongly disagree with the statement.

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|-----|--|----|---|---|---|----|--------------------------|----|
| 1. | My husband is unhappy with the number of times we've had to move for the sake of my career. | SA | A | U | D | SD | <input type="checkbox"/> | 25 |
| 2. | My job makes it difficult for us to spend time and do things together. | SA | A | U | D | SD | <input type="checkbox"/> | 26 |
| 3. | Because of my job I don't have much energy left for anything outside of work. | SA | A | U | D | SD | <input type="checkbox"/> | 27 |
| 4. | My job makes it difficult for us to have the kind of social life my husband would like to have. | SA | A | U | D | SD | <input type="checkbox"/> | 28 |
| 5. | Because of my job my husband doesn't find it easy to get out and make new friends. | SA | A | U | D | SD | <input type="checkbox"/> | 29 |
| 6. | My job makes it difficult for my husband to keep up his relationships and go out with his friends. | SA | A | U | D | SD | <input type="checkbox"/> | 30 |
| 7. | My job makes it difficult for me to help much in bringing up the children. | SA | A | U | D | SD | <input type="checkbox"/> | 31 |
| 8. | Because of my job, I don't get involved much in keeping the family close and not letting it drift apart. | SA | A | U | D | SD | <input type="checkbox"/> | 32 |
| 9. | Because of my job, I don't spend much time worrying about big decisions related to our home life. | SA | A | U | D | SD | <input type="checkbox"/> | 33 |
| 10. | Our family has expressed unhappiness with the number of times we've had to move because of my job. | SA | A | U | D | SD | <input type="checkbox"/> | 34 |
| 11. | Because of my job, my husband can't attend family reunions and get together as much as he would like | SA | A | U | D | SD | <input type="checkbox"/> | 35 |
| | | | | | | | <input type="checkbox"/> | 36 |
| | | | | | | | <input type="checkbox"/> | 37 |
| | | | | | | | <input type="checkbox"/> | 38 |
| | | | | | | | <input type="checkbox"/> | 39 |

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|--|----|---|---|---|----|--------------------------|----|
| 27. Because of my job, our social life has dwindled to almost nothing. | SA | A | U | D | SD | <input type="checkbox"/> | 55 |
| 28. I frequently express concern about my safety in my present job. | SA | A | U | D | SD | <input type="checkbox"/> | 56 |
| 29. We always have to be on our best behaviour because of my job. | SA | A | U | D | SD | <input type="checkbox"/> | 57 |
| 30. My husband is tired of making new starts in new neighbourhoods, with new people, because of my job. | SA | A | U | D | SD | <input type="checkbox"/> | 58 |
| 31. Because of my position, we sometimes have to socialize with people that my husband feels somewhat inferior or inadequate with. | SA | A | U | D | SD | <input type="checkbox"/> | 59 |
| 32. Because of my job, our relationship suffers. | SA | A | U | D | SD | <input type="checkbox"/> | 60 |
| 33. I am sometimes angry and irritable at home because of things that happen at work. | SA | A | U | D | SD | <input type="checkbox"/> | 61 |
| 34. My children are sometimes given a hard time by their peers because of my job. | SA | A | U | D | SD | <input type="checkbox"/> | 62 |
| 35. I often expresses concern for what this job is doing to my health. | SA | A | U | D | SD | <input type="checkbox"/> | 63 |
| 36. My work ties us down and restricts our personal life too much. | SA | A | U | D | SD | <input type="checkbox"/> | 64 |
| 37. My children often express (or have expressed) unhappiness about the time I spend at work. | SA | A | U | D | SD | <input type="checkbox"/> | 65 |
| 38. My present position does not interfere with our home or family life in any way. | SA | A | U | D | SD | <input type="checkbox"/> | 66 |
| 39. When I get home after a typical day I am too tired to do very much with the family. | SA | A | U | D | SD | <input type="checkbox"/> | 67 |
| 40. When I am at home with the family my husband often finds me thinking about things at work and not paying attention to them. | SA | A | U | D | SD | <input type="checkbox"/> | 68 |
| 41. Our personal plans are often interfered with because I am called away to deal with problems at work. | SA | A | U | D | SD | <input type="checkbox"/> | 69 |

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|---|----|---|---|---|----|--------------------------|----|
| 42. Because of the heavy demands of my job I am not spending as much time with our family as my husband would like me to. | SA | A | U | D | SD | <input type="checkbox"/> | 70 |
| 43. I must always be on best behaviour and can't just relax like people in other jobs. | SA | A | U | D | SD | <input type="checkbox"/> | 71 |
| 44. The demands of my job make it difficult for me to maintain a close relationship with our children. | SA | A | U | D | SD | <input type="checkbox"/> | 72 |
| 45. Because of my position, the community expects my children to be better behaved. | SA | A | U | D | SD | <input type="checkbox"/> | 73 |
| 46. I treat the children differently to my husband because of my job. | SA | A | U | D | SD | <input type="checkbox"/> | 74 |
| 47. I have been called when away on holidays to deal with problems at my workplace. | SA | A | U | D | SD | <input type="checkbox"/> | 75 |
| 48. The demands of my job make it hard to give much attention to our relationship. | SA | A | U | D | SD | <input type="checkbox"/> | 76 |
| 49. My job makes it hard for me to be the kind of wife my husband would like me to be. | SA | A | U | D | SD | <input type="checkbox"/> | 77 |
| 50. My job makes it hard for me to be the kind of mother my husband would like me to be. | SA | A | U | D | SD | <input type="checkbox"/> | 78 |
| 51. My husband is frequently concerned about my safety because of my position. | SA | A | U | D | SD | <input type="checkbox"/> | 79 |
| 52. My job makes it difficult for me to spend time and do things with our children. | SA | A | U | D | SD | <input type="checkbox"/> | 80 |

