The effect of work conditions on the family-life, well-being and performance of white collar employees in the construction industry

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Part One: Description of the proposed research and its context

Kanter (1977) suggests that the fate of both men and women is inextricably bound up with workplace structures and processes. Research has demonstrated that workers' occupational contexts influence family functioning (Grimm-Thomas and Perry-Jenkins 1994; O'Neil and Greenberger 1994; Hughes et al 1992). The construction industry is a demanding work environment. Many job and organisation factors associated with negative experiences of family life are likely to be pertinent in the construction industry. These include long and irregular work hours (Aldous et al 1979; White and Keith 1990), job insecurity (Larson et al 1994) and frequent re-location, which puts strain on dual career couples (Kamerman and Kahn 1981: Bunker et al 1992). Yet the impact of job demands on the family functioning, well-being and performance of construction industry employees is not well understood (Lingard 2000).

The proposed research will provide a better understanding of work and family issues in the construction industry and identify practical recommendations as to how construction firms can provide a productive workplace that is supportive of employees' family lives.

The proposed research will also act as a springboard for the development of an in-depth, longitudinal study of construction professionals' experiences of the work-family interface (See Limitations and Future research). Subject to the successful identification of industry collaborators, an application for this in-depth study will be prepared for submission to the Australian Research Council in April 2001.

Proposed work

The aims of the proposed research are fourfold:

• Firstly, the research will quantify work conditions experienced by construction industry professionals, including their job demands and current practice in the provision of family-friendly employment practices;
• Secondly, the research will explore the relationship between these work conditions and other variables, such as employees' satisfaction with their work and family lives, the degree to which employees experience job-family conflict, employees' mental health and organisational outcomes, such as absenteeism and employees' intention to leave their job;
• Thirdly, the research will identify employees' preferences for improved family-friendly employment practices; and
• Finally, the research will provide the basis for a more in-depth longitudinal study of work-family issues. In particular, the reliability of measurement scales, previously deployed in other industrial contexts, will have been rigorously tested in the Australian construction industry environment.

Scientific and social relevance

Traditional management theories and practices presuppose a lifestyle that segregates family and work spheres. With an increasing number of dual income couples (Paden and Buehler 1995), employees, whether as spouses or parents, participate in many roles simultaneously. Managers may live with family responsibilities themselves, yet are taught that successful managers must remain detached and rational, not concerning themselves with the family concerns of employees (Bruce and Reed 1994). Changes in
workforce characteristics require a shift in management approach to re-examine the values, roles and stereotypes and to meet the increasing expectation that a balance between work and family life be achieved. In this context, the artificially created separation between employees' work and family lives is no longer tenable (Kamerman and Kahn 1981).

In 1990, Australia ratified ILO Convention 156. This obliges Australia to aim to enable people engaged in work with family responsibilities to work without being subject to discrimination and without conflict between work and family (Cass 1993). In line with social policy, laws exist at the federal level and in most Australian States and territories, which impose requirements on employers in respect of the family responsibilities of employees (Napoli 1994).

There is also an increasing body of evidence to suggest that policies that facilitate stronger families lead to stronger companies, enjoying enhanced productivity and improvements in long term competitiveness. Research suggests that the implementation of family-friendly work policies and practices lead to enhanced organisational efficiency, morale and productivity (Cass 1993, Butruille 1990, Fernandez 1986; Baden and Friedman 1981). Home-to-work 'spillover' effects, whereby subjective experiences in one context impact upon performance in the other arena, are well-documented (Barnett 1994, Eckenrode and Gore 1990). Thus negative experiences in family life are likely to impact upon employees' performance at work.

Women are under-represented among construction industry professionals (Court and Moralee 1995, Agapiou et al 1995). Increasing the numbers of professional women in the construction industry is consistent with policies on equal opportunity but is also recognised to be an important facilitating factor in changing the construction industry's traditional adversarial culture (Gale 1992). Furthermore, there is evidence that the construction industry will need to recruit more women if its future labour demands are to be met (Agapiou et al 1995). Research suggests that, regardless of employment status, women perform two to three times more household work than their partners (Demo and Acock 1993) and it is likely that women will be more likely to remain in employment that is supportive of their family responsibilities.

Research suggests that the quality of family and marital life moderates the impact of job demands on mental health outcomes such as depression (Barnett et al 1992) and professional 'burnout' (Dolan 1995; Greenglass et al 1995). Research suggests that employees suffering from 'burnout' tend to withdraw from work, expressing lower commitment to their organisation, a higher level of absenteeism and/or a stronger intention to leave (McKee et al 1992). With a better understanding of the occupational sources of mental health problems, organisations could prevent such problems through improved job design (Landy 1992) or seek to alleviate these problems through the implementation of family-friendly employment practices.

**Industry involvement**

The success of the research depends upon collaboration with industrial partners. Industrial partners will be co-ordinated by the Construction Industry Institute of Australia, which will provide membership and leadership of a steering group to regularly review the progress and direction of the research. The industrial partners will also provide access to employees (in confidence) for data collection (see Research plan).

**Dissemination and exploitation**

The research output will be a report on the impact of various job demands experienced by construction industry professionals on their satisfaction, well being and performance. The report will also contain practical recommendations for the implementation of family-friendly work practices. In the first instance, this information will be available for exploitation by the industrial partners. The work will be disseminated through presentation at international academic conferences and, on completion of the work, a paper will be submitted to an international refereed academic journal.
Part Two: Research plan and budget

Data will be collected using a self-administered questionnaire. The Construction Industry Institute will assist in identifying a number of firms, which will participate in the study. However, firms at the larger end of the construction industry will be targeted for involvement since these firms are more likely to have formal family-friendly work policies in place (MacDermid et al 1994). Stratified random sampling will be used within firms to identify individuals to whom questionnaires will be sent. Disproportionate samples assist in focusing on sub-groups of particular interest (Neuman 1994). Since women are a sub-category of employees that is of particular interest in the study, the proportion of women included in the sample will be greater than their proportion of the total workforce.

Dependent variables to be measured include: Quality of working life, relationship life and family life (Barnett et al 1992); Availability of time for family (Bohen and Viveros-Long 1981); Job-family conflict (Bohen and Viveros-Long 1981); Psychological distress (Derogatis 1975); Burnout (Maslach and Jackson 1985); and Absenteeism and intention to leave (McKee et al 1992). All of these variables will be measured using scales previously deployed by other researchers.

The independent variable (work conditions) is being measured using the Work Conditions Scale utilised by MacDermid et al (1994). Seven dimensions of an employees' work conditions, linked in the literature to family members' experiences of tension between work and family role, will be rated. These are: Schedule demands of work; Job demands of work; Income; Availability and accessibility of benefits; Lack of substantive complexity; Quality of supervision; and Closeness with co-workers. Each condition will be assessed using multiple aspects.

These scales have been found to have high levels of internal consistency and test-re-test reliability in previous studies. However, the reliability of all of these scales will be determined in the Australian construction industry context.

Data will also be collected for several control variables. These include characteristics that have been found to affect perceptions of conflict or overload between work and family responsibilities, such as marital status, gender and age of youngest child (Higgins et al 1994). Other family characteristics such as whether a family has a single or dual income and whether a family has a single residence or is involved in a 'commuter marriage' arrangement will also be determined.

The questionnaire will be distributed through human resource managers of participating construction firms. Individuals will be nominated at a local level to distribute questionnaires and collect completed questionnaires. This approach has been found to yield acceptably high response rates in similar studies (Bohen and Viveros-Long 1981).

Questionnaire data will be analysed using multiple regression and modelling techniques to test for main and interaction effects in the relationships between variables (Levin and Rubin 1982).
Schedule

The research steps and the way their success can be measured (in brackets) are detailed in the following plan of work, with approximate timings:

1. Develop and trial questionnaire (achieved when all variables can be measured reliably). (Weeks 1-4)

2. Identify the questionnaire sample (achieved when stratified random sampling procedures have been used to identify 600 white collar construction industry employees). (Weeks 1-4)

3. Distribute questionnaires to all subjects in sample (achieved when 600 questionnaire have been distributed). (Week 5)

4. Identify subjects who have not returned questionnaires and issue reminders (achieved when reminders have been sent). (Week 8)

5. Prepare data for analysis (achieved when data input is complete and checked). (Weeks 12-16)

6. Undertake statistical analysis (achieved when all variables have been tested for main and interaction effects). (Weeks 16-20)

7. MILESTONE - Quantitative data collection and analysis is complete and preliminary research report is submitted. (Week 24)

Budget and justification

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<td>• for six months @ $37,000 per annum (including on-costs) = $616 per month. For six months = $3,700</td>
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<td>Maintenance</td>
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<td>• questionnaires. 600 questionnaires @ 6 pages = 3,600 pages @25 c per page = $900</td>
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<td>Equipment</td>
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<td>• Software licence for SPSS statistical software @ $800</td>
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Justification

The work will be undertaken by the chief investigator, with the assistance of a part-time research assistant (RA). The RA will format the questionnaire, prepare reply-paid envelopes assist in the questionnaire distribution, collate completed questionnaires and input data in preparation for analysis. The use of a postal questionnaire incurs distribution costs. The inclusion of reply-paid envelopes assists in attaining a satisfactory response rate. Data analysis will be conducted using the SPSS for Windows software package. Use of this software requires a site licence fee to be paid.
Part Three: Limitations and future research

The study is cross-sectional in nature in that it represents a 'snapshot' in time. It is recognised that work conditions have a cumulative effect on employees. For example, burnout is understood to be a process rather than a response to a discrete event (Greenglass and Burke 1990). Cross sectional studies are often unable to yield information about the direction of causal relationships between variables that are interrelated in a complex way. Neither do cross-sectional studies permit researchers to assess the effectiveness of intervention strategies. The need for longitudinal of follow-up studies, which identify the effect of work conditions over time, is recognised (Murphy et al 1992; Carayon, 1992).

The proposed research will act as a springboard from which a more extensive longitudinal study will be conducted. The proposed research will allow measurement scales to be tested for their reliability in the Australian construction industry, before their deployment in the longitudinal study. The longitudinal study will involve six-monthly measurements being taken from the same subjects over a period of three years. The longitudinal study will provide an analysis of the effects of work conditions over time. It will also enable employees' responses to family-friendly employment practices implemented by participating companies to be determined.

In addition to the variables measured in the proposed research, the longitudinal study will also take into consideration variables important to employees' responses to the work environment, such as organisational culture and climate.

Another limitation of reliance on quantitative data derived from questionnaires is that such data provides little insight into why or how relationships between variables occur. The longitudinal study will combine both quantitative and qualitative inquiry. In-depth interviews exploring selected relationships in depth and detail will be a key component of the longitudinal study. While the interview sample will be much smaller and the findings less generalisable than those of the survey, interview data will supplement the questionnaire survey data (Patton 1990) and offer insightful explanations of the relationships between the work and family life of participants.

References


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