

Occupational stress and job demand, control and support factors among construction project consultants



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KEYWORDS

- Occupational stress
- Stressors

Article Highlight:

This article investigates the relationship between job demands, job control, workplace support factors and occupational stress among South African construction project consultants.

What does the paper cover?

The construction industry is well-known for work-related stress. The causes are due to the project-driven nature of the industry and the work pressure, including long working hours that this entails. The conclusion is that occupational stress is getting worse.

Previous studies have focussed mainly on single professional groups in industrialized countries. This study extends those studies by investigating occupational stress among multi-disciplinary professionals in a developing economy, South Africa.

The study was conducted in the context of thirteen factors, identified in the commonly used 'Job Demands Control' (JDC) and 'Job Demands Control-Support' (JDC-S) theories.

Job demand factors:

- Working to tight deadlines
- Working long hours
- Work-life imbalance
- Needing to 'prove' oneself
- Hours worked per week

Job control factors:

- Assignment of tasks
- Pace of work
- Work environment
- Responsibility/authority balance

Job support factors:

- Line manager makes life easier at work
- Line manager provides support in difficult situations
- Colleagues make life easier at work
- Colleagues give support in difficult situations

Methodology:

Data were collected between September and November 2010 through a self-reporting on-line opinion questionnaire survey. Registered professionals were asked to participate through an email from their statutory bodies.

As well as gathering information about the theory factors, other data captured included gender, age, ethnicity and professional discipline. Participants were asked to self-assess their stress levels on a 1–10 ascending scale of severity.

A total of 676 architects, civil engineers, quantity surveyors, project managers and construction managers working in the construction industry in South Africa responded. The respondents were broadly representative of the demographic of the professionals in this industry.

Responses were analysed using hierarchical regression, factor analysis and structural equation modelling to explore the strength of the relationship of stress factors with perceived occupational stress.

Research findings:

Gender, age and profession each contribute to predicted stress levels among South African construction professionals. Ethnicity is not significantly related to stress – this is an important finding in the South African context because of the pre-1994 apartheid history of restrictive employment conditions.

A number of work demand variables are predictors of stress, but none of the individual job control variables, and only one of the job support variables are significant predictors. This is contrary to expectations of the JDC and JDC-S theories and so, even though there was some correlation, neither theory can be fully supported by this research.

Gender: Proportionately more women than men feel stressed at work, with more women reporting the need to prove themselves in the workplace, and lower levels of control over task assignment, pace of work and work environment. Despite men reporting lower levels of perceived stress than women, they report greater levels of job demand, control and support. This might be related to a cultural conditioning effect.

Job demand: The variables that predicted high stress levels are, in order of significance: work-life imbalance, the need to 'prove' oneself, hours worked per week, and working to tight deadlines.

Job control: None of these variables are found to be significant mitigators of high stress. However, they do need to be considered as moderating variables in the context of their relationship between the other demand and support variables.

Job support: Only one factor is significantly related to reducing stress: line manager provides support in difficult situations.

Conclusions:

- The research provides partial support for the applicability of the JDC-S theory in explaining occupational stress in the South African construction industry.
- Working long hours is strongly associated with high stress, as is imbalance between work and life/family commitments, and the need to prove oneself. This mirrors the findings of similar research. The extent of support received from line managers in difficult situations may moderate stress levels.
- A male-dominated culture persists in the construction industry in South Africa with more women than men reporting the need to prove themselves in the workplace, and experiencing lower levels of control over task assignment, pace of work and work environment.
- Project managers should focus attention on looking at more efficient and effective ways of working to help reduce long working hours, as this directly impacts work-life-family balance.
- Wherever possible, project managers should try to minimise the competitive nature of needing to prove oneself. This relates to fears about job security.
- Construction organisations should train supervisors and line managers in how to provide a positive culture of collegiate support.
- Project managers should balance the positive benefits of socialising and team building activities, where these are undertaken outside normal working hours, with the work-life-family balance needs of employees.

Significance of the research:

The research provides strong but not complete support for the applicability of the JDC-S theory in explaining occupational stress in the South African construction industry.

The study endorses occupational stress as a universal issue, with no discernible differences found between developed and developing nations.

Further research should: focus more deeply on construction-specific job demand factors; explore why female construction project consultants appear to experience more stress than males; and develop reliable early-warning systems for work-life-family imbalance among workers.

Comments from author:

Research among the general working population has recently examined the effects of after-hours work-related contact on occupational stress¹. This contemporary phenomenon, fuelled by advances in cellular communication and mobile internet access, has been found to exacerbate the level of job demands and negatively impact work-life-family balance.

Replicating the research in 2016, among South African construction project consultants, has yielded similar findings². Higher levels of after-hours work contact increase job pressure and lead to greater work-family conflict, psychological distress and sleep problems.

The inescapable conclusion is that job pressure, as an overall measure of various job demands, is key to predicting occupational stress.

Dr Peter Edwards

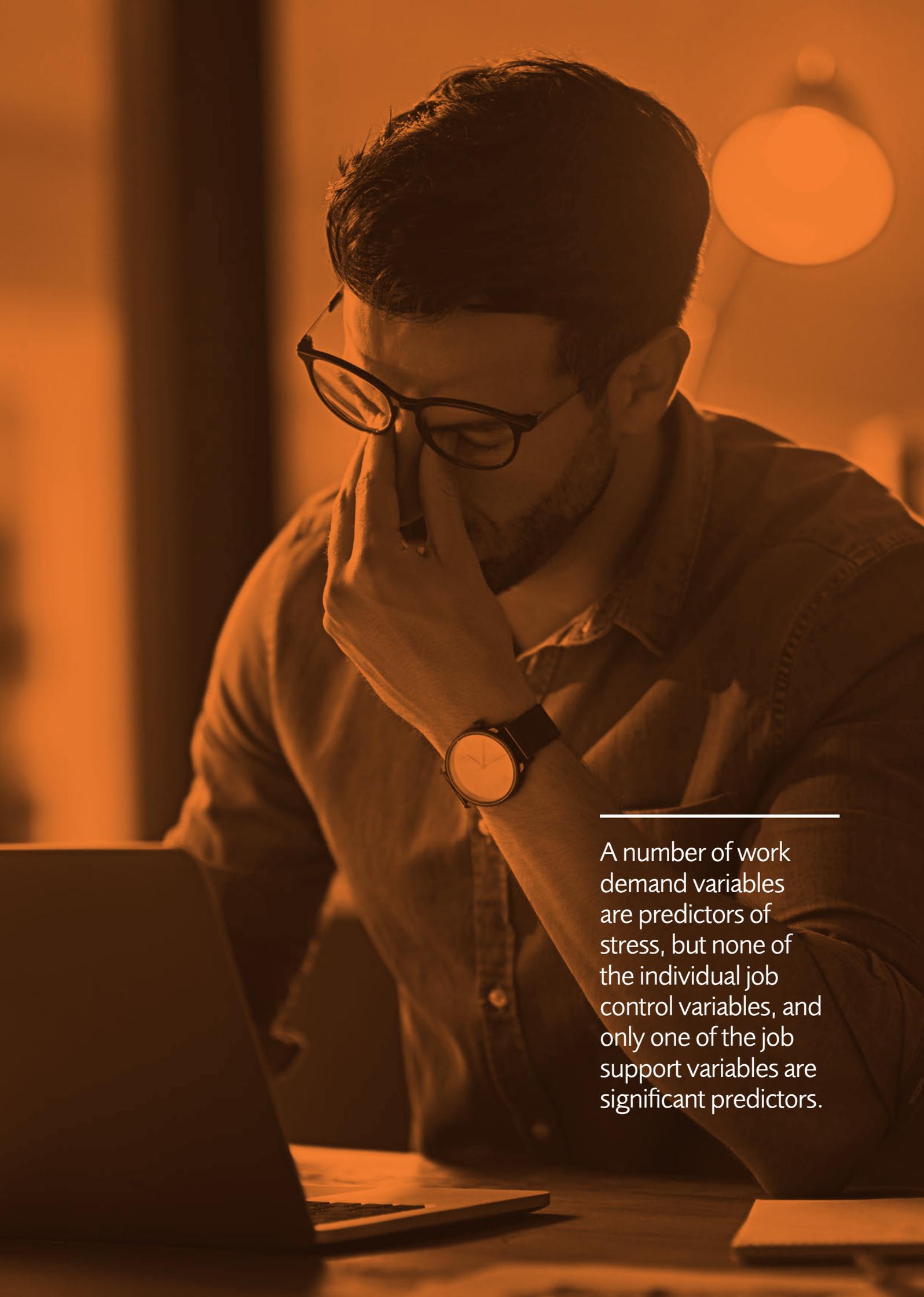
¹Schieman, S. and Young, M. (2013) Are communications about work outside regular working hours associated with work-to-family conflict, psychological distress and sleep problems? *Work & Stress*, Vol.27, No.3, pp. 244–261.

²Bowen, P.A., Govender, R., Edwards, P.J. and Cattell, K. (2017) Work-related contact, work-family conflict, psychological distress and sleep problems experienced by construction professionals: an integrated explanatory model. *Construction Management and Economics*. <http://dx.doi.org/10.1080/01446193.2017.1341638>

Complete article

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Association for Project Management

Ibis House, Regent Park
Summerleys Road,
Princes Risborough
Buckinghamshire,
HP27 9LE

Tel (UK) 0845 458 1944
Tel (Int) +44 1844 271 640
Email research@apm.org.uk
Web apm.org.uk

Glossary:

Occupational stress:	Psychological and/or physical effects caused by a working environment.
Stressors:	Factors that cause stress.



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