Psychosocial working conditions in a manufacturing setting

The relationship with employee and organisational health

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Background

The case for tackling psychosocial hazards in the workplace is clear, with HSE statistics highlighting that almost 40% of all work-related ill health is due to stress, depression or anxiety[1].

The widely adopted Stress Management Standards approach to tackling stress at work utilises a generic questionnaire, the Management Standards Indicator Tool, to measure employees' self-reported exposure to stressors at work[2]. Whilst this tool can be useful in identifying 'hotspots' in an organisation and informing discussion towards fully identifying and addressing the underlying problems, it does not explore whether there is any relationship between reported problems (hazards) and health outcomes[3]

Augmenting the Indictor Tool with a measure of stress outcomes can help to identify psychosocial work conditions that may warrant prioritisation as targets for interventions through calculation of risk estimation statistics[3].

The Work Organisation Assessment Questionnaire (WOAQ)[4], developed for use in the manufacturing sector, assesses employees' perceptions of exposure to potential psychosocial hazards at work and estimates the risk of a number of health-related outcomes associated with exposure.

Aims

- To explore whether particular work conditions can be identified as appropriate targets for workplace interventions by:
  - Identifying which aspects of the psychosocial working environment are perceived as problematic by employees
  - Measuring whether there is an association between aspects of work perceived to be problematic by employees and their wellbeing, job satisfaction and subjective health
  - Assessing whether it is feasible to prioritise interventions based on the information above

Research Method

- Cross-sectional, quantitative study on a site population of 581 employees
- Non-probability, self-selection sampling
- 102 employees (18%) completed a survey based on the WOAQ
- The questionnaire comprised demographic data gathering, followed by 28 questions related to potential psychosocial hazards in the workplace, 12 questions to assess wellbeing and single item assessment of subjective health and job satisfaction
- Respondents' characteristics were compared with company-wide characteristics due to the low response rate. Sample representativeness was confirmed
- Odds ratios were calculated to estimate the impairment to employee wellbeing, subjective health and job satisfaction associated with psychosocial hazards at work

Results

- Exposure to 27 of the 28 psychosocial hazards in the workplace was associated with one, two or three of the health outcomes
- Low job satisfaction was associated with poor subjective health
- Poor subjective health was associated with poor wellbeing

Previous studies have suggested that that those aspects of psychosocial conditions in the workplace that are deemed problematic by the majority of the sample population[5] and that are shown to have an association with poor health outcomes[3] should be given priority for workplace interventions.

This general principle has been applied to those aspects of work that affect the greatest percentage of respondent i.e. over 40%. This would seem reasonable given the HSE's aim of a cycle of continuous improvement to address psychosocial hazards in the workplace

The table below shows the seven potential psychosocial hazards identified as a priority to address: each shows an increased risk of impairment to at least one of the health-related outcomes and is seen as problematic by more than 40% of respondents.

WOAQ item by sub scales (mean)		Wellbeing OR (95% CI)	Job satisfaction OR (95% CI)	Health OR (95% CI)	%
Quality of relationship with management					
Q16	senior management attitudes (2.64)	3.13 (1.09-8.97)	4.69 (1.89-11.66)	3.10 (1.24-7.76)	> 50 %
Q26	status/ recognition in the company (2.61)		4.31 (1.77-10.53)	2.79 (1.13-6.89)	> 40%
Q7	feedback on your performance (2.66)		3.74 (1.56-8.94)	2.85 (1.16-6.99)	> 40%
Reward and recognition					> 40%
Q23	opportunity for learning new skills (2.71)		9.56 (3.64-25.12)	3.03 (1.23-7.44)	> 40%
Q21	opportunity for promotion(2.46)		4.05 (1.66-9.89)		> 40%
Quality of physical environment					> 40%
Q2	work surroundings - e.g. noise, light, temperature (2.27)		2.89 (1.06-7.93)	5.68 (1.57-20.52)	> 40%
Q15	the equipment/ IT that you use (2.72)		4.41 (1.78-10.93)	2.93 (1.17-7.33)	> 40%

Discussion and conclusion

The aim of the study was to examine the relationship between psychosocial working conditions and employee and organisational health with a view to using the results to inform and design workplace interventions intended to protect and promote the health of both the working population and the organisation itself.

Use of the odds ratio statistic enables the results to be presented in a form that can be widely understood without the need for detailed knowledge of statistics. For example, from the table above, a respondent who identifies senior management attitudes as problematic is 3 times more likely to experience poor wellbeing, 3 times more likely to experience poor subjective health and 5 times more likely to experience poor job satisfaction. Thus findings can be more directly conveyed in a widely understood format to the decision makers who influence the allocation of finite resources that may be required to fund further action suggested by research findings.

This research also shows an association between job satisfaction and subjective health with respondents who were dissatisfied with their jobs being 5 times more likely to experience poor subjective health. This finding reflecting those of a meta-analysis of almost 500 studies of job satisfaction, which found evidence of a very strong relationship between job satisfaction and both mental and physical health[6].

There is a lack of longitudinal research into the effectiveness of organisational interventions in particular in addressing psychosocial hazards in the workplace and this has been identified as one of the barriers to managing psychosocial hazards in the workplace effectively. Thus further research is needed to augment empirical evidence in this area.

Despite the low response rate, this study adds to the evidence base on the association between psychosocial hazards in the workplace and health related outcomes. It also demonstrates how applied research in this area can be utilised to garner resources and build the evidence for developing workplace health promotion interventions.

References:

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