

## Work, personality and mental health<sup>†</sup>

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To be unemployed when you want to be working is indisputably bad for both mental and physical health. Job insecurity too is bad for health (Ferrie *et al*, 1995). Because work itself can be both hazardous and beneficial to mental health and because most adults spend a lot of their life working, and because the nature of work is potentially modifiable, it is worthwhile gaining a more thorough understanding of the impact of work on mental health.

### PSYCHOSOCIAL WORK CHARACTERISTICS

Aspects of work that are risky for health can be divided into physical hazards (e.g. exposure to dust, heat, noise, long hours and shift work) and psychosocial risk factors. Karasek (1979) described two key dimensions of the psychosocial work environment: psychological job demands and decision latitude, the latter comprising decision authority (control over work) and skill discretion (variety of work and opportunity for use of skills). According to his 'Job Strain Model' the worst combination for health is to have high demands and low decision latitude. Further work has added an important dimension of work social support to this model (Karasek & Theorell, 1990). Siegrist has described an additional model, that of Effort–Reward Imbalance (Siegrist, 1996). In this model the combination of a high effort at work, which might be both intrinsic effort including innate competitiveness and hostility, together with high extrinsic work demands and receiving, by implication, little reward in terms of salary, promotion or being valued is a powerful risk factor for ill health. These models and accompanying

instruments, such as the Job Content Instrument, were first developed in relation to studying the aetiology of coronary heart disease (Marmot *et al*, 2002). Do they also apply to mental health?

### PSYCHOSOCIAL WORK CHARACTERISTICS AND MENTAL HEALTH

There is now consistent evidence from a number of cross-sectional (Broadbent, 1985; Estryn-Behar *et al*, 1990; Bromet *et al*, 1992) and longitudinal studies (Kawakami *et al*, 1992; Parkes *et al*, 1994; Stansfeld *et al*, 1997, 1999; Niedhammer *et al*, 1998; Mino *et al*, 1999) that high levels of psychological demands, including high work pace and high conflicting demands, are predictive of poor mental health. Increasing job demands measured on two occasions has also been related to increased risk of psychological distress compared with when job demands decreased or stayed the same over two occasions (Stansfeld *et al*, 1999). By contrast, high levels of social support at work from colleagues and supervisors are protective of mental health in both cross-sectional (Bromet *et al*, 1992; Weinberg & Creed, 2000) and longitudinal studies (Kawakami *et al*, 1992; Parkes *et al*, 1994; Niedhammer *et al*, 1998; Stansfeld *et al*, 1999).

Decision latitude has been associated with mental health outcomes either on its own, or in combination with job demands, to replicate Karasek's model. High levels of decision latitude were protective of mental health in both cross-sectional (Hesketh & Shouksmith, 1986; Warr, 1990; Mausner-Dorsch & Eaton, 2000) and longitudinal studies (Niedhammer *et al*, 1998; Stansfeld *et al*, 1999). Decision authority, rather than skill discretion, was the strongest predictor of depression (Mausner-Dorsch & Eaton, 2000). The associations of demands and

decision latitude with mental health and well-being do not appear to be linear (Warr, 1990). Warr put forward a 'vitamin model' to explain this; a certain amount of control or demands at work are necessary for mental health but beyond these levels, too much is bad for you. The effects of demands and decision latitude seem to be additive rather than multiplicative, not confirming Karasek's original hypothesis of an interaction between high demands and low control. Nevertheless, high job strain, the combination of high demands and low decision latitude, has been associated with a higher prevalence of Clinical Interview Schedule-rated psychiatric morbidity in teachers (Cropley *et al*, 1999) and higher rates of major depressive episode, depressive syndrome and dysphoria measured by the Diagnostic Interview Schedule in the Baltimore sample of the Epidemiologic Catchment Area Programme (Mausner-Dorsch & Eaton, 2000). The advantage of these two studies, and that of Weinberg & Creed (2000), is that they used structured interview measures of psychiatric morbidity that were likely to be more reliable and valid than the non-specific psychological distress scales or the depressive symptom scales used in most occupational epidemiological studies. High job demands (in women), low social support and low skill discretion in both men and women have also been associated with higher rates of psychiatric sickness absence as the outcome rather than self-reported symptoms (Stansfeld *et al*, 1997).

There is some evidence that job demands, which might contain the threat of becoming overloaded, are specifically related to anxiety symptoms whereas low decision latitude, perhaps implying loss of or insufficient control, are more related to depressive symptoms (Broadbent, 1985; Warr, 1990). The other current alternative model, effort–reward imbalance, has a powerful impact on increasing the risk of psychological distress that was largely independent of the effects of decision authority (Stansfeld *et al*, 1999). It has been suggested that the associations between work and psychiatric morbidity might be explained by problems outside work. A careful case–control study of health care staff found that although acute stressful situations and chronic difficulties outside work were important in anxiety and depressive disorders there were also independent effects of 'conflict of work

<sup>†</sup>See pp. 111–117, this issue.

role' and 'lack of management support at work' (Weinberg & Creed, 2000).

## PSYCHOSOCIAL WORK CHARACTERISTICS, PERSONALITY AND DEPRESSION

The sceptical reader will ask whether the associations between self-reported work characteristics and self-reported mental health outcomes are not entirely the result of confounding by a third factor such as personality. Negative affectivity accounts for some of the variance in the association between work characteristics and mental health (Brief *et al.*, 1988). Adjustment of work characteristics by negative affectivity and hostility in the Whitehall II Study has little effect on the risk of psychological distress associated with decision authority, increased the effects of job demands in women, but not men, and reduced the effects of low skill discretion on the risk of psychological distress (Stansfeld *et al.*, 1999). A replication of these findings is reported by Paterniti *et al.* (2002, this issue), who have demonstrated that personality measures such as hostility and attributes such as low self-esteem do not seem to explain the association between work characteristics and depressive symptoms in the massive French GAZEL Study, a longitudinal French occupational study, ongoing since 1989. This is further evidence that the psychosocial environment at work is important and these associations are not merely a form of response bias. However, one puzzle remains: most studies that have not relied on self-reports of work but have used assessments of the work environment, external to the person reporting psychological distress, have not found associations between work and mental health. Although this would tend to support the response bias argument, it is possible that the subjective perceptions of work are a necessary mediating step between the work environment and psychological distress.

Nevertheless, there probably is some association between personality and type of work. Certain occupations suit particular personalities and such people might choose to work in these occupations or be selected preferentially for such jobs (Kohn & Schooler, 1982). In relation to this, certain aspects of personality could render a person more vulnerable, or more resilient, to the psychosocial work environment.

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Paterniti *et al.* (2002, this issue) report that men with higher levels of hostility benefit more from high levels of decision latitude, where the high hostility could represent a need to be in control. They also found that men with low self-esteem did worse with low levels of support at work and this might indicate a group who would benefit from more support.

## INTERVENTIONS FOR IMPROVING MENTAL HEALTH IN THE WORKPLACE

It is difficult to achieve population-based interventions to improve mental health. One feasible area for intervention where conditions are potentially modifiable is the workplace. Four years ago the partnership on the health of the National Health Service (NHS) workforce, representing most major organisations providing and regulating health care and concerned with NHS staff health, made some trenchant recommendations to improve the health of the NHS workforce based on a systematic review of the work and health literature (Williams *et al.*, 1998). These recommendations are certainly also applicable more widely. They stated unequivocally that 'management style clearly affects health'. Their ten-point 'action now' plan recommended action on several of the risk factors mentioned above. These included 'a major initiative to improve two way communication to increase staff involvement and enhance team working and control over work'. In more detail this has meant to 'enhance a sense of control by staff over the work environment', to 'develop a culture in which staff are valued' and to 'structure situations to promote both formal and informal social support within the workplace'. They also suggested a need to 'evaluate work demands and review staffing'.

The world of work is changing rapidly and this is an opportunity to incorporate this research into the management and organisation of work to promote good mental health in the workforce in the future.

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