



Editorial

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Stress at work - a risk factor for depression?

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Stress at work – a risk factor for depression?

Depression is a severe public health problem that has been predicted to be the leading cause of burden of disease in high-income countries by 2030 (1). In addition to serious human suffering, depression affects families and communities and is associated with substantial work impairment in terms of lost work days and reduced productivity (2–5). Acute negative life events have, for a long time, been a major focus of the stress/mental disorder literature. Severe acute life events that involve a high degree of threat, negative emotions, and experience of loss have been found consistently to precede the onset of depression [for a review, see Hammen (6)]. In 80% of depression cases, onset of depression was preceded by a stressful negative life event.

While stressful life events can definitely elicit depression, it is plausible to assume that chronic psychological stress, such as stress at work, may also be of importance through similar pathways (7, 8). Indeed, there is some evidence that work stress – as expressed for example, by high demands, lack of control, imbalance between efforts spent and rewards gained – is associated with mental disorders (8–12). However, a recent review by Bonde (11) restricted to clinical depression suggested that the association is inconclusive. Furthermore, in the majority of studies, working conditions have been measured by self-reported perceptions of work situation. This is problematic since even when the study design is longitudinal and the cases at baseline are excluded, associations found between perceived stressors and incident mental disorders may reflect the unmeasured subclinical state and associated negative affect. Therefore, there is a need for independent or more objective measures of workplace exposures and mental health outcomes although it is methodologically challenging to disentangle the extent to which a self-report reflects objective work environment versus subjective interpretation (for new evidence, see Virtanen et al (13) and Kivimäki et al (14)).

In this number of the *Scandinavian Journal of Work, Environment and Health*, two Danish studies address the issue of work-related psychosocial exposures and the onset of depression using more objective ways to assess work stress. Netterström and his colleagues (15) examine the association between major reorganization (merger) in the municipal sector and the onset of depressive symptoms in a two-year follow-up study. Their study is particularly interesting since a major reorganization can be considered to be a potential stressful life event as well as an objectively measured work-related stress factor potentially associated with increased insecurity and workload. The results showed an association between exposure to merger and onset of depression among men and women. However, the number of cases was relatively small and odds ratios failed to reach statistical significance. The authors concluded, therefore, that there was no association between merger and depression. In addition to a lack of statistical power, one reason for this might be that the study participants did not feel their job security was threatened since there was a formal job guarantee.

Madsen and her study group (16) examined the association between person-related work and incident use of antidepressants in the other study published in this issue of the Journal. The study population was based on the Danish work environment cohort study where survey responses were linked to a national register of purchased antidepressants. A strong relationship was found between working in healthcare occupations and new-onset antidepressant use when compared to employees working in non-healthcare occupations where contact with clients were less frequent. The association was partially mediated by the participants' perception of high emotional demands at work. Furthermore, working with clients in a non-healthcare setting was not associated with antidepressant use. The authors concluded that healthcare

work, also characterized as *human service work*, is particularly emotionally demanding and this feature involves a risk of depression. Despite the limitations discussed in the article, the clear strength of the study is its contribution to the job stress/mental health literature by showing that an objective measure of work stress exposure (human service work) is associated with future deterioration of mental health to the extent it is related to excess emotional load, that is, suggesting a potential mechanism explaining the association.

Although evidence on the relationship between work stress and the onset of depression is gradually accumulating, we are still far from firm conclusions about whether stressful working conditions are a causal risk factor for depression. In mental disorders, multiple interrelated risk factors operate in the causal chain and tend to cluster among high-risk people. It is therefore difficult to extract independent effect of work exposures from other related exposures that lead to the onset of disease. However, progress towards better understanding of the relationship between work stress and mental health is already underway.

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