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Burnout – a matter of impaired recovery?

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ABSTRACT

The general aim of this thesis work was to investigate physiological and subjective markers of recovery from stress in order to identify and discuss possible risk factors precipitating burnout, as well as factors related to recovery from burnout and return to work. In particular, sleep and unwinding during leisure time, in relation to burnout, were in focus in the four papers included in this thesis.

The first two papers had cross-sectional designs, in which workday and weekend patterns of sleep, cortisol, sleepiness, mental fatigue, and perceived activation in burnout subjects were investigated. Twenty-four working individuals were selected into two groups on the basis of burnout scores (high or low), 12 subjects in each group matched on age, gender and experience in the company. Physiological sleep data showed a higher frequency of arousals for the high-burnout group. The diurnal pattern of sleepiness, mental fatigue and activation indicated that the high-burnout group did not recover during the weekend, as did the low-burnout group. Other indicators of impaired recovery were seen within the high-burnout group as they reported a higher degree of thoughts of work during leisure time, bringing work home and working on weekends. The burnout group showed higher awakening cortisol during the workday compared to the weekend. The diurnal amplitude of cortisol did not differ between the groups. When objective sleep data was related to cortisol data, it was shown that higher frequency of micro-arousals during the prior sleep was associated with an earlier diurnal peak of cortisol and higher diurnal amplitude of cortisol during the workday.

The third paper was a longitudinal study, conducted over a two-year period. During this time, 15 subjects, out of 388 in the reference sample at one workplace, were identified as ‘burnout cases’, as they were clinically assessed, found matching the inclusion criteria and referred to treatment for clinical burnout. Baseline data on work stress, sleep, and impaired unwinding, were used as independent variables in a set of logistic regression analyses in order to identify risk factors for subsequent clinical burnout. ‘Too little sleep (<6 h)’ was identified as the main risk factor for clinical burnout, with adjustment for ‘work demands’ and ‘thoughts of work during leisure time’. The latter two became significant predictors in earlier steps of the multivariate approach.

In the fourth paper, 23 patients on long-term sick leave due to clinical burnout and 16 healthy controls were subjected to polysomnographic recordings at baseline and at follow-up (6–12 months later). Decreased sleep fragmentation and decreased anxiety over time predicted recovery from burnout (reduced fatigue). Reduced fatigue was the only significant predictor of return to work.

In short, this thesis has put forward data that support the assumption that, apart from high work demands, impaired or insufficient sleep and unwinding are connected to burnout development. Also, recovery from clinical burnout was shown to be associated with improved sleep quality and alertness. Plausibly, interventions aiming at preventing or treating sleep disturbance, as well as at enhancing the possibilities to unwind during daytime, in groups experiencing high work stress, may be of vital importance in order to decrease the risk for severe exhaustion development.

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