

## Recovery from Work as a Means to Compensate for Increasing Work Demands

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### Abstract

There is evidence that work demands have increased in the European Union in the last 20 years. A result of demanding work conditions is the development of prolonged fatigue. Prolonged fatigue is among others associated with increased long-term sickness absence. Prolonged fatigue is not only affected by work conditions but also by a lack of recovery from work leading to an increased need for recovery. Rest breaks and leisure time reduce fatigue, especially when individuals are able to mentally detach from work. It is proposed that a positive and knowledgeable attitude towards recovery from work together with specific recovery-related skills may help promote successful work-related recovery and thus reduce work-related fatigue.

### Increases in Psychosocial Work Demands

There is evidence that work demands have increased in the European Union in the last 20 years. Work demands include factors such as (high) working hours, (low) decision latitude, (low) break control/autonomy, and (high) mental, emotional, and physical demands. For example, whereas only 34% of German employees felt stressed by time pressure in 1994, this number increased to 41% in 2008, with intermediate levels of 36% in 1999 and 38% in 2004 [1]. Similar trends regarding working at high speed and working to meet tight deadlines are also found in the European Work Condition Surveys (EWCS) 1991-2010 [2,3]. Here it is noted that “one of the most consistent findings of the EWCS is the relative intensification of the pace of work over the last 15 years. An increasing proportion of EU workers report working at a very high speed or to tight deadlines” [2]. Whereas 50% of the employees reported working to tight deadlines in 1991, this percentage increased to 63% in 2010 [3]. Also, “the threshold that workers are expected to reach in some respects appears to be getting more exacting: an increasing proportion of workers in the EU27 are required to meet precise quality standards in their work (74% today as against 69% in 2000)” [3].

However, not only have work demands increased, but also employees' control over work has decreased to some extent, with e.g. fewer employees stating they were able to “choose or change their methods of work” in 2005 than in 1995, despite the fact that “they are somewhat more able to choose or change the order of their tasks” [2,3]. Based on the well-known demand-discretion model of work stress, which proposes that the combination of high job demands and low control at work is associated with the greatest stress reactions, these changes suggest that employees in the European Union are currently subject to greater work stress than in the past [4]. For example, several studies have reported main effects of both demands and control in predicting indicators of psychological well-being over time. Similar results were found for sickness absence rates, which were, however, also affected by low social support.

### Prolonged Fatigue

One of the results of psychosocially stressful work conditions is prolonged fatigue, i.e. disabling fatigue lasting for more than 4 weeks [5]. Fatigue can be defined as “the state of weariness following a period of exertion, mental or physical, characterized by a decreased capacity for work and reduced efficiency to respond to stimuli”. Prolonged fatigue is the long term result of extra effort invested to compensate for this decreased capacity for work, thus accumulating over time.

Approximately every fifth European employee is subjected to prolonged fatigue [6]. Fatigue negatively affects cognitive performance such as reaction times, memory, information processing and decision-making [7] and is therefore associated with an increased accident risk, despite the fact that fatigue can be compensated for to some extent [8]. In addition, prolonged fatigue is associated with more frequent sickness absence, especially with an increase in long-term sick leave (i.e. sick leave of more than 42 days per half year) [9]. Also, the recovery from severe work-related fatigue is a long-winded process. According to a Dutch longitudinal study, only 59% of employees with prolonged fatigue recover within a year [10]. And even when on sick leave, only 37% take up work again within a period of six months [11].

Next to demanding job characteristics, fatigue is also associated with insufficient recovery from work, conceptualized as “need for recovery” [12]. It is proposed that repeated instances of insufficient recovery from work will not only accumulate fatigue but further enhance it by requiring individuals to display extra effort to prevent a decline of performance [13]. Thus, insufficient recovery from work can be seen as the link between demanding work characteristics and fatigue.

### Recovery from Work

Based on these facts, recovery from work may be a viable option to combat work-related fatigue. Typically, recovery occurs during rest-breaks, post-work leisure time, weekends and vacations [14-16] and leads to, among others, a decrease in fatigue and an increase in health and well-being. The most dramatic display of the effects of leisure on fatigue is illustrated by a 15-year longitudinal study showing levels of fatigue to decrease substantially when employees retired from work [17]. A crucial factor for recovery to occur is not only to terminate work physically but also to mentally detach from work, i.e. to let work-related

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issues fade into the background of the mind [15]. To do this, one's attention has to be redirected to other tasks or stimuli not associated with work and motivating enough to uphold one's awareness for some time. A number of activities have been found to foster recovery in this sense, including physical activity, social communication and low-effort activities [18], natural surroundings [19], and activities requiring pleasurable engagement such as hobbies [20]. Employees engaging more in active leisure activities, exercise, as well as creative and social activities, for example, had significantly better sleep and lower levels of chronic fatigue [20]. There is, however, reason to believe that different individuals will benefit from different activities, if they provide a means to mentally withdraw from work.

Thus, rather than promoting one or the other individual activity it would seem more effective to improve an employee's attitude towards recovery from work as well as his/her self-efficacy regarding recovery behaviors. According to a widely used model predicting health behaviors, the theory of planned behavior, those are major factors affecting the intention to act and lastly behavior itself [21]. Indeed, in a recent study, recovery intention, i.e. the employees' inclination to engage in recovery, was not only negatively associated with prolonged fatigue but this effect was also more enhanced under conditions of high work-stress, suggesting that recovery intention buffers the effect of work stress on fatigue [22]. In addition to a positive attitude towards recovery it would seem reasonable to assume that also a greater awareness of one's needs in terms of mindfulness should lead to a better self-regulation of work and rest, enabling the individual to initiate recovery activities when needed, i.e. when the first signs of fatigue arise [23]. Mindfulness has also been shown to enable individuals to more fully utilize recovery situations, thus showing greater recovery [24]. A favorable attitude towards recovery as well as skills to effectively recover from work can be taught to employees and have shown to help individuals to recover from work successfully [25].

## Conclusion

Promoting recovery from work during rest breaks and leisure time is a promising way to prevent work-related fatigue. However, this does not mean that one should not also address and modify unfavorable psychosocial work characteristics.

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