

# Abstract

**Background.** High levels of perceived stress and stress-related ill health, such as burnout, are common in many countries. Several theories postulate that stress behaviors promote adaptation to environmental changes and if sustained they are potentially harmful for the body. In accordance, impaired stress recovery behaviors, i.e., psychophysiological deactivation after periods of stress behaviors, have been suggested to be a critical factor in explaining stress-related ill health. Whereas research shows that interventions targeting stress reactivity can have beneficial effects on stress-related variables, studies on interventions targeting stress recovery are surprisingly few. Also, the number of validated instruments for measuring behaviors important for stress recovery are few, in particular easily used self-rating scales.

**Aims.** The primary aim of the thesis was to evaluate stress and health-related effects of an intervention targeting stress recovery behaviors in everyday life among people perceiving high levels of stress in life. A secondary aim was to validate a self-report scale measuring behaviors important for stress recovery in everyday life.

**Method.** Three empirical studies were conducted to evaluate effects of the behavioral stress recovery intervention “balance in everyday life”, which solely aims at strengthening stress recovery behaviors in everyday life. First, a brief version of the intervention was investigated through a small pilot study in which a single-subject experimental design was used (study 1). After that, the intervention was exploratively tested in a group format in which a quasi-experimental design was used (study 2). Due to the positive results of these two studies, a larger scale study using a randomized controlled design was conducted in order to further investigate the effects of the intervention when delivered in a group format (study 3). To fulfill the secondary aim of the thesis, the Recovery Experience Questionnaire was translated into Swedish and analyzed using exploratory factor analysis and confirmatory factor analysis (study 4).

**Results.** In study 1, data demonstrated immediate reduction of stress symptoms as a function of the intervention. The improvements were maintained at 1-year and 5-year follow-up assessments. In study 2, in comparison with a waiting-list-control group, the intervention yielded statistically significant improvements between pre- and postintervention assessment on eleven out of twelve stress and health-related variables. Medium to large between-groups effect sizes were demonstrated for the primary outcome measures covering (potential) recovery behaviors, perceived stress and rest and experiences of being recovered. In the third study, statistically significant improvements for all outcome measures at postintervention assessment and at the 3-month follow-up were demonstrated. The between-groups effect sizes for the primary measures - perceived stress, tension, and burnout - were medium-to-high at postintervention assessment and at follow-up. In addition, in all studies the intervention was associated with beneficial changes in levels of anxiety and depression. In the last study, support was found for the proposed four-factor structure of the Swedish version of the Recovery Experience Questionnaire.

**Conclusions.** The results clearly indicate that the intervention “balance in everyday life” improves stress and health-related factors in a relatively satisfactory way among people perceiving high levels of stress in life. The empirical support is strongest for the reduction in tension, perceived stress, burnout, anxiety and depression, and to deliver the intervention in a group format. The studies demonstrated results that warrant further investigation of the effects of “balance in

everyday life”, for example in different contexts, and to study other behavioral recovery interventions. To test (potential) recovery facilitating behaviors as mediators of intervention effects, such as reduction in burnout, the Swedish version of the Recovery Experience Questionnaire could be used.