English summary

The prevalence of overweight and obesity in the world is growing. Because obesity is associated with a number of serious lifestyle diseases such as hearth disease, a vast amount of research has been devoted to investigate how to assist weight loss, for example through behavioural weight loss interventions. Regrettably, effects of such interventions are varied and moderate at best. However, Intensive Lifestyle Interventions (ILI) – in which participants live together for 12-14 weeks, experience what a healthy lifestyle entails and are taught classes on how to administer physical activity and diet habits – has been shown to assist a weight loss of 1% of body weight each week. Unfortunately, research has also shown that the majority of ILI participants are not able to maintain the attained weight loss after the ILI. There is growing evidence suggesting that exercise-specific motivational and self-regulation behaviour strongly moderates the effect of behavioural obesity interventions. However, despite this evidence and the promising results of ILIs, a systematic review of the literature in this thesis revealed that neither motivation’s nor volition’s importance to weight loss maintenance in the period that follows an ILI has been investigated previously. The aim of this thesis was to investigate how motivation and volition influence the difficult task of weight loss maintenance for individuals battling obesity in the period that follows an ILI. To reach this aim, three individual research studies were conducted.

Because a validated instrument for measuring the underlying psychological mechanisms behind self-regulatory behaviour in the exercise context (exercise specific volition) was not readily available, such an instrument had to be developed and validated. In Study 1, the Volition in Exercise Questionnaire was validated in a sample of 836 university students. Six volitional factors based on 18 items of relevance to exercise participation were identified. The questionnaire showed acceptable model fit, internal consistency, convergent validity, and the ability to explain differences
in exercise participation beyond those explained by the motivational scales of the Sport Motivation Scale.

In Study 2, a longitudinal study, a mixed model analysis of 164 ILI participants revealed that exercise specific volition and motivation influence the task of weight loss maintenance in the period that follows an ILI. Based on this study, it was demonstrated that exercise volition and, in particular, volitional self-confidence and the tendency to postpone training are of importance above and beyond autonomous exercise motivation. Results of the study also indicated that extrinsic motivation can be either facilitating or counterproductive depending on the level of self-determination, as identified regulation showed a positive effect 12 months after the intervention, whereas internal regulation showed a negative effect on weight loss.

In Study 3 – an interview based qualitative study of 11 successful and 4 unsuccessful ILI weight maintainers – it was shown that important challenges in the period that follows the ILI were adjusting to life after the intervention, controlling ‘unhealthy’ food intake, and avoiding being controlled by specific situations. Clear differences were seen between successful and unsuccessful weight maintainers with regards to volition, as described in the Personality Systems Interaction Theory. Other challenges were making weight reduction one’s own project, seeking social support, self-monitoring, choosing exercise activities, as well as eating and exercising for positive consequences. In meeting such challenges, motivation is important, and examples were explained based on the basic psychological needs and motivation quality described in the Self-determination Theory. Based on theoretical interpretations of the participants’ experiences, a theoretical model was developed. The model illuminates how motivational quality necessitates volitional intensity in order to maintain goal-oriented behaviour or refrain from goal-opposing behaviour.

Overall, this thesis underlined the importance of including all phases of the Rubicon Model of Action Phases when investigating the motivational aspect of weight loss maintenance following
an ILI. The results of the three studies indicated that in order to ensure sustained weight loss, ILIs need to actively facilitate exercise participation in the period that follows the end of the intervention, and that interventions to sustain participants’ exercise-specific self-determined motivation and volitional skills might be the key to ensure this.