



**e-Assessed follow-up of postoperative recovery**  
– development, evaluation and patient experiences

av

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**Akademisk avhandling**

Avhandling för medicine doktorexamen i Medicinsk  
vetenskap med inriktning mot hälso- och  
vårdvetenskap,  
som kommer att försvaras offentligt  
fredag den 15 juni 2018 kl. 09.00,  
Hörsal F, Örebro universitet

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## Abstract

Karuna Dahlberg (2018): e-Assessed follow-up of postoperative recovery – development, evaluation and patient experiences. Örebro Studies in Medicine 182.

The majority of all surgeries are performed as day surgery. After discharge, patients are expected to take responsibility for their postoperative recovery themselves. Recovery Assessment by Phone Points (RAPP) is an e-assessment developed for assessing and providing follow-up on postoperative recovery, which includes the Swedish web-version of the Quality of Recovery questionnaire (SwQoR). It also enables the patient to get in contact with the day surgery unit. The overall aim of this thesis was to further develop and evaluate a systematic follow-up of postoperative recovery using a mobile app in adult persons undergoing day surgery, as well as to describe their experiences of postoperative recovery when using the mobile app. **Study I:** This study included three steps. Equivalence testing between the paper and app versions of the SwQoR showed agreement (n=69). The feasibility and acceptability evaluation showed that participants (n=63) were positive towards using a mobile phone application during postoperative recovery. Content validity of the SwQoR reduced the original 31 items to 24. **Studies II and III:** A multicentre, two-group, parallel, single-blind randomized controlled trial including 997 participants was conducted to investigate the effect of e-assessment on postoperative recovery (II) and cost-effectiveness (III) in a RAPP group compared with a control group. The RAPP group reported significantly better quality of postoperative recovery on postoperative days 7 and 14 compared with the control group. Moreover, RAPP may be cost-effective as it provides low-cost care. **Study IV:** Explored experience of postoperative recovery in participants using a mobile phone app during their postoperative recovery. Qualitative inductive semi-structured interviews (n=18) were performed. Findings showed that feeling safe is important during postoperative recovery. This feeling can be created by patients themselves, but sufficient support and information from health care and next of kin is needed. Overall, this thesis showed positive results for RAPP, suggesting that RAPP is a solution that may benefit patients after day surgery.

*Keywords:* Ambulatory surgery, cost-effectiveness, eHealth, mobile applications, postoperative recovery, qualitative research, randomised controlled trial.

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