

Poster – #EIE2021

The effectiveness and process evaluation of *Hospital in Motion* – A multi-dimensional implementation project to improve patients' physical behaviour during hospitalisation

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Research aim

Higher physical activity levels during hospitalization might lead to a reduction in diverse medical complications, functional decline and outplacement to a rehabilitation setting. However, promoting physical activity is challenging since physical inactivity is deeply rooted in the hospital culture. To address this problem, *Hospital in Motion*, a multidimensional and multidisciplinary implementation project was designed. Alongside the effectiveness of *Hospital in Motion*, a process evaluation was performed to provide insight in the impact of the interventions and to evaluate factors of influence on the success of Hospital in Motion.

Methods

A mixed-method study, evaluating the effectiveness and monitoring the implementation of *Hospital in Motion* was conducted. *Hospital in Motion* is a ward specific multi-disciplinary and -dimensional implementation project involving four wards in a Dutch University Medical Centre and using the approach of Grol and Wensing. Per ward, a multidisciplinary project team designed a tailored action plan with multimodal interventions to address physical inactivity during hospitalization. Physical behaviour was measured with the behavioural mapping method before and 1 year after project start. The process evaluation included a health care professional survey, patient survey and semi-structured interviews with health care professionals and patients, and followed a deductive approach guided by the framework of the medical research council guideline.

Key findings

Effectiveness: From pre to post implementation (n=160 per time point), time spent lying decreased from 60.1% to 52.2% (p=0.01), time spent sitting increased from 31.6% to 38.3% (p=0.01) and time spent moving increased from 8.3% to 9.6% (p=0.308). **Process evaluation (survey):** The familiarity of health care professionals per intervention ranged from 54% to 84%. The results from the health care professional survey showed significant increases in the number of health care professionals reporting the level of physical function (60% to 74%). **Process evaluation (interviews):** Factors of influence on program success were the iterative and multidisciplinary approach. Impact can be achieved by continuous attention and awareness during the implementation. Multiple interventions, tailored to the target group, should be implemented within multiple dimensions (individual, inter-professional, community and society), since interaction between the different interventions was found to be one of the mechanisms of impact. However, to maintain the focus, the amount of the interventions should be limited.

Discussion

What are factors of influence on the success of a multidimensional implementation project to improve inpatient physical behaviour? How can sustained changes of physical behaviour be achieved in daily care?