

Efficacy of the 'Cancer Home-Life Intervention' in people with advanced cancer living at home: an occupation-focused and occupation-based intervention.

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This PhD project examines the efficacy of the 'Cancer Home-Life Intervention' for people with advanced cancer. The project is part of a larger research project, the **A**ctivity, **C**ancer, and **Q**uality of Life at Home project (ACQ project).

People are increasingly living longer time with advanced cancer, but research shows that they have difficulties performing their activities of daily living (ADL) tasks at home, and many people with advanced cancer do not receive the help they need. Overall, this situation may have a significant, negative bearing on these persons' health-related quality of life (HRQoL). One of the aims of occupational therapy is to support occupational performance, viz. ADL task performance. This can be achieved by employing occupation-focused and/or occupation-based interventions. However, existing evidence regarding the efficaciousness of occupation-focused and/or occupation-based interventions in people with cancer is scarce. There is accordingly a need to develop an occupation-focused and/or occupation-based intervention that can help these people to manage their daily life at home. The 'Cancer Home-Life Intervention' was therefore developed based on results from a cross-sectional study, a scoping review of existing evidence and clinical guidelines. The target group and the intervention providers (occupational therapists) shared their views on the intervention and found it relevant. The efficacy was evaluated in a full-scale randomised controlled trial (RCT).

Objective: The present PhD project aimed to examine if the 'Cancer Home-Life Intervention' as a supplement to usual care was more efficacious in terms of occupational performance, autonomy and participation and HRQoL than usual care alone in people with advanced cancer living at home.

The study had three specific aims, viz. to: 1) describe the evaluation plan, 2) investigate the efficacy of the 'Cancer Home-Life Intervention' with regard to ADL motor ability, ADL process ability, difficulties performing prioritised occupations, autonomy and participation, and HRQoL, and 3) identify whether some subgroups of people with advanced cancer gained an effect of the 'Cancer Home-Life Intervention'.

Design: An RCT with 6 and 12 weeks of follow-up.

Material: A total of 242 home-living adults (≥ 18 years) with advanced cancer having a World Health Organisation (WHO) Performance Status 1-2 (indicating functional limitations) were randomised either to the intervention group ($n=121$) or the control group ($n=121$).

Outcomes: The primary outcome was motor skills observed during occupational performance, viz. ADL motor ability measured by the Assessment of Motor and Process Skills (AMPS). Secondary outcomes were ADL process ability measured by the AMPS, difficulties performing prioritised occupations assessed by the Individually Prioritised Problem Assessment (IPPA); autonomy and participation assessed by the Danish version of the Impact on Participation and Autonomy Questionnaire (IPA-DK of the IPAQ); and HRQoL assessed by the European Organisation for Research and Treatment of Cancer Quality-of-Life Questionnaire Core-30 (EORTC QLQ C-30).

Results: Overall, 191 participants completed the final follow-up at 12 weeks, which was sufficient to reach the required sample size ($N=184$). No statistically significant effect of the 'Cancer Home-Life Intervention' was found on either the primary outcome or the secondary outcomes. The subgroup analyses showed no statistically significant effect on ADL motor ability in the six subgroups defined by age, gender, years of education, type of primary tumour, functional limitations and problems performing prioritised occupations. No modifying effect of age (0.30 [95% CI: -0.05 to 0.64]) and gender (0.23 [95% CI: -0.11 to 0.57]) was found.

Conclusion and future research: The 'Cancer Home-Life Intervention' delivered mostly through one home visit and one follow-up telephone contact produced no effect on the participants' occupational performance, autonomy and participation and HRQoL. There was no subgroup effect of the 'Cancer Home-Life Intervention' on ADL motor ability, but there were some indications that participants aged < 69 years benefited more than those aged ≥ 69 years. However, there may be significant flaws in the design of the intervention that need to be taken into account. Future research needs to identify the appropriacy of the intensity, duration and timing of the intervention, and define the link between the intervention and the outcomes. Furthermore, future studies should also pay more attention to feasibility testing prior to proceeding to a full-scale RCT. More research is therefore needed to determine the beneficial contribution of an occupation-focused and occupation-based intervention in people with advanced cancer.

Related publications (links)

- I. Brandt Å, **Pilegaard MS**, Oestergaard LG, Lindahl-Jacobsen L, Sørensen J, Johnsen AT, la Cour K. Effectiveness of the 'Cancer Home Life Intervention' on everyday activities and quality of life in people with advanced cancer living at home. A randomised controlled trial and a health economic evaluation: study protocol. *BMC Palliative Care* 2016; 15:10 DOI:10.1186/s12904-016-0084-9.
- II. **Pilegaard MS**, la Cour K, Oestergaard LG, Johnsen AT, Lindahl-Jacobsen L, Højris I, Brandt Å. The 'Cancer Home-Life Intervention': A randomised controlled trial evaluating an occupational therapy-based intervention in people with advanced cancer. *Palliative Medicine* 2018. 32:4; 744-756. <https://doi.org/10.1177/0269216317747199>
- III. **Pilegaard MS**, Oestergaard LG, la Cour K, Johnsen AT, Brandt Å. Subgroup effects of an occupational therapy-based intervention for people with advanced cancer. *Scandinavian Journal of Occupational Therapy*. Article first published online: March 23, 2018. <https://doi.org/10.1080/11038128.2018.1455897>

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