

# Occupational therapy for persons living with chronic conditions – Development and feasibility of the ABLE program

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## English resumé

**Background:** Persons living with chronic conditions often experience decreased ability to perform self-care and domestic tasks, referred to as activities of daily living (ADL). Besides medical treatment to prevent or treat symptoms, persons with chronic conditions are often offered physical exercise to improve physical and/or mental body functions. Such interventions are founded on a belief that enhanced physical and mental functioning also will result in improved ability to perform ADL. However, existing research indicate that improvements in body functions do not necessarily translate into improved ability to perform ADL. Furthermore, research investigating the outcome of interventions designed to enhance ADL ability is sparse and insufficient. Thus, there is a need to develop and evaluate the feasibility of an intervention program directly focusing on enhancing ability to perform ADL tasks among persons with chronic conditions.

Therefore, the aim of this doctoral thesis was to develop and evaluate the feasibility of an occupational therapy intervention program aiming at enhancing ADL ability among persons with chronic conditions.

**Methods:** The Medical Research Council's (MRC) guidance on how to develop and evaluate complex interventions was applied. During the development stage, a literature search to identify existing knowledge on ADL interventions was conducted. In addition, two separate studies were carried out. First, ideas on how to enhance ADL ability according to persons living with chronic conditions (n=18) and occupational therapists (n=23) were identified, organized and prioritized based on Group Concept Mapping (study I). Second, based on the ADL-Interview (ADL-I), self-reported quality of ADL task performance was explored among in four diagnostic sub-groups of persons living with chronic conditions; persons with rheumatologic disease (n=143), persons living with incurable cancer (n=203), persons with chronic obstructive pulmonary disease (n=141) and persons with schizophrenia (n=106) (study II). Finally, expert workshops were undertaken to initiate modeling the intervention program, including synthesizing all obtained information and developing logic models.

During the feasibility and piloting stage, an evaluation of the feasibility (i.e. content and delivery) of the program 'A Better everyday Life' (ABLE 1.0) was planned, and later conducted using a pretest – posttest design. The study was conducted in a Danish municipality among persons living with chronic conditions (n=30). Data related to intervention development; intervention components; mechanisms of action; perceived value, benefits, harms or unintended consequences; feasibility and acceptability in practice; and fidelity, reach and dose of intervention was collected from both the clients and the occupational therapists delivering the intervention. Both qualitative and quantitative data was collected based on registration forms, assessments of ADL ability (the ADL-I and the Assessment of Motor and Process Skills (AMPS)) and by use of the Goal Attainment Scaling (GAS) (study III).

**Results:** First, we found that persons living with chronic conditions and occupational therapists had similar ideas on how to enhance ADL ability. The ideas spanned over various topics organized in seven themes. However, persons with chronic conditions and occupational therapists had different priorities (study I). Second, we found that various sub-groups with chronic conditions experience similar problems related to decrease in quality of ADL task performance; the dominating problem was related to experiencing increased time use (inefficiency) and increased physical effort (study II).

Next, all obtained information was synthesized, thus creating the basis for developing the ABLE 1.0 program and a pilot intervention manual. The ABLE 1.0 program is an individual program with a duration of eight weeks and a minimum of five and a maximum of eight sessions. The theoretical foundation of the program is the Occupational Therapy Intervention Process Model (OTIPM) and the Person - Environment - Occupation Model (PEO).

Finally, we found that overall the ABLE 1.0 was feasible with regards to intervention development; intervention components; mechanisms of action; perceived value, benefits, harms or unintended consequences; feasibility and acceptability in practice; and fidelity, reach and dose of intervention (study III).

**Conclusions:** Based on this thesis, a generic intervention program aiming at enhancing ADL ability was developed, especially addressing problems related to inefficiency and increased physical effort during performance of ADL. Themes on how to enhance ADL ability according to persons living with chronic conditions and occupational therapists were identified. These themes were applied to design specific intervention components for the intervention program. Overall, the ABLE 1.0 was feasible in a municipality setting with regards to intervention development, intervention components, mechanisms of action, perceived value, benefits, harms or unintended consequences, feasibility and acceptability in practice and fidelity, reach and dose of intervention. These conclusions support initiating a randomized controlled trial (RCT) to evaluate the effectiveness of the ABLE 1.0 program. However, prior to a RCT study, adjustments are needed in relation to; recruitment process, clarifications in the intervention manual, dose and the access to needed equipment. Further, an internal pilot study is recommended.

## Related publications

Nielsen KT, Klokke L, Guidetti S, Wæhrens EE. Identifying, organizing and prioritizing ideas on how to enhance ADL ability. *Scandinavian Journal of Occupational Therapy*. 2018: 1-12. <https://doi.org/10.1080/11038128.2018.1424235>

Nielsen KT, Klokke L, Wæhrens EE. Self-reported quality of activities of daily living (ADL) task performance in persons with chronic conditions. (Manuscript submitted for publication)

Guidetti S, Nielsen KT, von Bülow C, Pilegaard MS, Klokke L, Wæhrens EE. Evaluation of an intervention programme addressing ability to perform activities of daily living among persons with chronic conditions: study protocol for a feasibility trial (ABLE). *BMJ Open*. 2018: 1-10. <https://bmjopen.bmj.com/content/8/5/e020812>

Nielsen KT, Guidetti S, von Bülow C, Klokke L, Wæhrens EE. Evaluation of the occupational therapy program ABLE 1.0 aiming at enhancing the ability to perform activities of daily living among persons with chronic conditions- a feasibility study. (Manuscript in draft)