Promoting continence in stroke survivors: Developing and evaluating a complex intervention

Study Protocol

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Background

- In a rehabilitation setting, more than 50 percent of stroke survivors in the acute phase suffer from urinary incontinence. This has a negative impact on their quality of life as well as on their rehabilitation outcomes. [1]
- Treatment of urinary incontinence is complex. Previous studies showed that urinary incontinence in persons who suffered a stroke is poorly managed and the focus is on managing incontinence instead of promoting continence. [2]

Aim

This study aims to develop and to test a complex intervention in the rehabilitation setting in order to promote urinary continence in patients who suffered a stroke.

Methods

- Promoting continence in stroke survivors is a complex intervention, particularly due to the high degree of flexibility and individual adjustment of the intervention which is required.
- To meet these demands, the study is based on principles of the Medical Research Council (MRC) framework for developing and evaluating complex interventions. The framework consists of four phases: development, feasibility & piloting, evaluation and implementation. The first three steps will be performed in this study. [3]
- The MRC framework has not been developed especially for nursing interventions. Thus, an adapted model of Cony et al. (2013) focusing on nursing interventions in the development phase was also considered. [4]
- In the current study, the development phase comprises four steps: synthesis of existing empirical evidence, needs analysis of the person who suffered a stroke, practice analysis with the interdisciplinary treatment team in a neurological inpatient rehabilitation setting. Further, the study also examines the cost-benefit ratio and nurses’ knowledge about incontinence. A quasi-experimental design will be chosen. Firstly, 60 stroke survivors will be included in control-group. After the implementation of the newly developed intervention, 60 stroke survivors will be included in the intervention-group.

Development phases

Phase I: Synthesis of existing evidence
- Systematic Review: Identifying the effectiveness of interventions
- Identifying the patient perspective

Phase II: Needs analysis
- Identifying the patient perspective
- Identifying professionals’ experiences

Phase III: Practice analysis
- Developing a program theory
- Elaborating a program theory
- Based on the results of phase I, II, and III

Phase IV: Evaluating the intervention
- Controlled clinical trial
- In a neurological rehabilitation setting

Evaluation phase

- This part of the study investigates the effects of the implemented program theory (management of urinary incontinence) on stroke survivors’ urinary continence, quality of life and the activities of daily living in the rehabilitation setting. Furthermore, the study also examines the cost-benefit ratio and nurses’ knowledge about incontinence.
- A quasi-experimental design will be chosen. Firstly, 60 stroke-survivors will be included in control-group. After the implementation of the newly developed intervention, 60 stroke-survivors will be included in the intervention-group.

Conclusions

Relevance for clinical practice

- This study can facilitate further development of an intervention aiming to promote urinary continence in patients who suffered a stroke, to improve their quality of life and to increase their independence.
- As a result of involving the treatment team in the development phase, a high acceptance of the intervention in practice can be assumed.

Academic implications

- This study proposes a possibility how a complex nursing intervention can be theoretically developed and tested in practice.
- It is considered as important to carefully develop a program theory.

Keywords

- Neurological rehabilitation
- Nursing intervention
- Stroke survivors
- Urinary incontinence

References