

Development of a mobile action plan to enhance exacerbation-related self-management in COPD patients

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Background: Patients with Chronic Obstructive Pulmonary Disease (COPD) experience exacerbations that negatively affect lung function, quality of life and mortality. Self-management skills are important to detect exacerbations early and to take prompt actions to reduce the impact. However, patients have difficulties with performing adequate exacerbation-related self-management. An action plan has shown to decrease the acute impact of exacerbations on health status, although effects on quality of life and healthcare utilization were lacking. A more comprehensive strategy is needed to manage heterogeneity of exacerbations and meet patient's needs, perceptions and preferences. Therefore, a tailored mHealth intervention will be developed to enhance exacerbation-related self-management in COPD patients.

Materials & Methods: A user-centered development design will be used for M-ACZIE, which fits in the development phase of the MRC framework for development and evaluation of complex care interventions. This design includes several iterative phases investigating and integrating evidence from the literature, patient experiences and expert opinion. The first phase has been elaborated based on building blocks as described in the model for developing evidence-based Nursing Interventions.

Results: Based on literature review and expert opinion a conceptual exacerbation model was developed and possible strategies to reduce impact of exacerbations were identified. In-depth interviews with patients ($N = 15$) have provided insight into factors influencing the underlying process of exacerbation-related self-management. Furthermore, potential benefits and barriers of mHealth were identified in focus groups with patients ($N = 13$). To move towards target behaviors of the intervention, a Delphi-study with experts in the field will be performed. Finally, by integrating evidence from literature, patients and experts the intervention design will be completed.

Conclusion: Based on a user-centered design a mHealth intervention will be developed that addresses the heterogeneity of exacerbations and realizes patient's full potential in reducing the impact of exacerbations by performing adequate self-management skills.

Nursing PREDOCS consultation prevents postoperative delirium, depression, pressure ulcers, infection

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Background: Given the growing number of vulnerable, older cardiac surgery patients, the preadmission nursing PREDOCS consult was developed to reduce the incidence of

postoperative delirium, depression, pressure ulcers and infections. In a subsequent feasibility study, it appeared to be acceptable by nurses and patients, but should be built into the hospital's cardiac surgery pathway.

Aim: To test this complex nursing intervention on effectivity, develop models for calculating individual effect sizes and evaluate the process of implementation.

Materials & Methods: Following phase 3 of the Medical Research Council (MRC) guidelines concerning evaluation of a complex intervention, in a multi-center cluster randomized stepped wedge trial, 222 older elective cardiac patients received usual care and 222 received the nursing PREDOCS consult 4 weeks prior surgery. The results were reported following the criteria for reporting the feasibility of complex interventions (CREDECI).

Results: Our sample had a mean age of 74.59 (SD 6.46) years, predominantly male (77.6%), submitted to the following surgeries: CABG (45.2%), valve (20.8%), combined (10.8%), other (23.2%). Based on multiple general estimation equation analysis, a statistically significant association between care receiver and postoperative complications was found (p -value = 0.019). Individual effect size models were developed and the process evaluation showed no difficulties in implementation after the training of nurses.

Conclusions: Especially higher educated patients appeared to benefit more from the nursing consult in their preparation for the hospital admission. Further research should focus on more benefit for lower educated patients.

Unravel the intervention components of proactive nurse-led care interventions for older persons

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Background: Within an ageing population, the number of older adults with multimorbidity are rapidly increasing. Most older adults prefer living independently at home for as long as possible. This requires being able to perform daily activities such as bathing and dressing, and instrumental activities of daily living (IADL) such as shopping. Previous intervention programs of early identification of those older adults at risk for functional decline and a subsequent nurse-led care program have not shown convincing effects on daily functioning. Little is known what the exact content, components, intensity and causal mechanism are, as well as the content and dose of nursing care delivered. Therefore the aim of this study is to unravel the content, active components, intensity and causal mechanisms of multicomponent nurse-led care programs aimed to maintain independent living in community-dwelling older people. Furthermore we explored whether the delivered care matches the individual care needs of older people.

Material and methods: A mixed-methods approach is conducted. Both available and

newly collected qualitative data will be used, compared and synthesized. A total of nine randomized controlled trials with approximately 15,600 older adults are included. To collect data in a structured manner, an item list was developed by literature first and subsequently assessed by an expert panel on face validity. Second, data were examined for commonalities and differences between the interventions. Third, a panel of older people was invited to reflect whether the delivered care matched their individual care needs.

Results: The synthesis and comparison between the components of the nurse-led interventions will be presented. The results provide answers regarding what type of proactive nurse-led care is most promising, what are the key components that should be included in future preventive nurse-led interventions aiming to prevent or diminish functional decline in community-dwelling older people. Moreover, we elaborate on which type of nursing care is provided, if this corresponds with the individual care needs.

Conclusion: This study contributes to better elucidate commonalities and differences between the multicomponent interventions and to better understand the causal mechanism and change process. It sheds light on why and how multicomponent nurse-led care intervention works.

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Development of gerontology and geriatrics competences of baccalaureate registered nurses P Huizenga¹, EJ Finnema¹, R Backhaus² and A Tuinman³

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Introduction: In coming years the population will age significantly. It is the desire of the Dutch government, of the society and of elderly people themselves that they are able to live independently at home for as long as possible. Government seeks to ensure that the elderly and people with disabilities can continue to live independently in their communities, receive support and tailored homecare and therefore be able to remain part of society for longer. This policy implies that only people with highly complex care requirements are admitted to long-term care facilities, with an increase of more complex home care as a result. Current care for the elderly must be adapted to fit the new standards for care. It is important to prepare health providers and society to meet the specific needs of older populations. This includes training for health professionals in nursing elderly; preventing and managing age-associated chronic diseases; designing sustainable policies on long-term and palliative care; and developing age-friendly services and settings.

In this symposium we focus on scientific research concerning competence development of Baccalaureate Registered Nurses working in