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für Allgemeinmedizin

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"MultiTool - Computer-Based Tool for the Management of Multimorbidity"

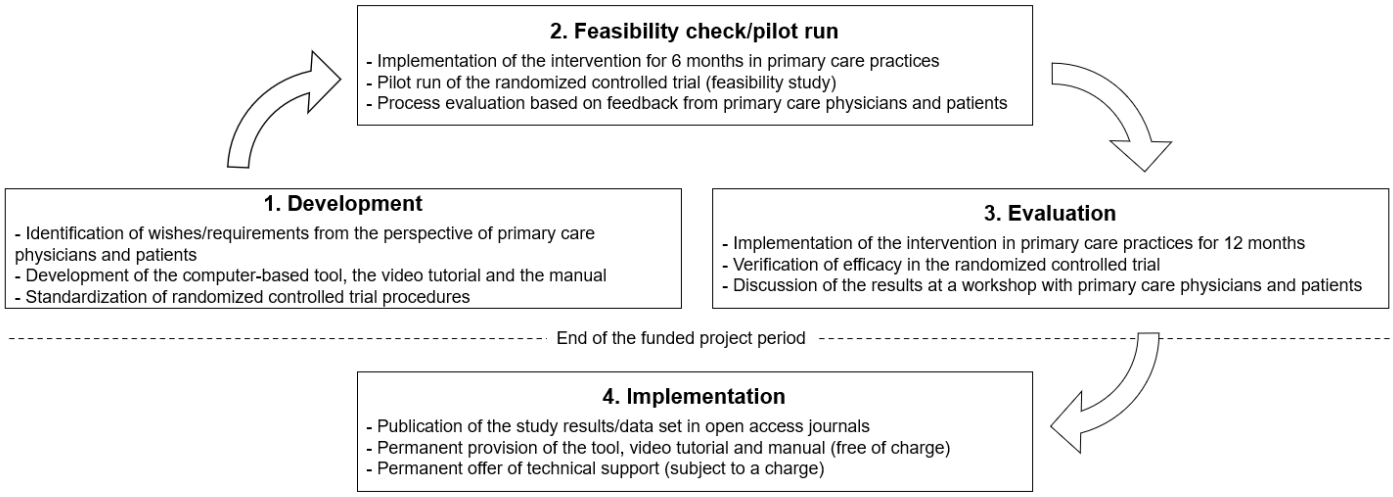
Project description

Background

The MultiTool project aims to improve medical care for patients with multimorbidity. Multimorbidity, the simultaneous presence of multiple chronic conditions, affects 50% to 80% of the elderly population. Many studies have found an association between multimorbidity and negative outcomes such as functional limitations, higher risk of premature mortality, and greater utilization of health care. Deciding how primary care physicians (PCPs) and patients should respond to new or worsening symptoms in the context of multimorbidity is not always easy. Symptoms may result from a known medical condition or from a health problem that was not previously diagnosed. However, care of patients with multimorbidity is also difficult, because treatments that have a positive effect on the course of one disease can negatively affect the course of another. In addition, guideline-based care sometimes suggests so many treatments in total that it is almost impossible for patients to follow all the recommendations. For these reasons and in view of the care situation and patient preferences, treatments must be prioritized, disease management adapted, and avoidably dangerous courses excluded.

Research project

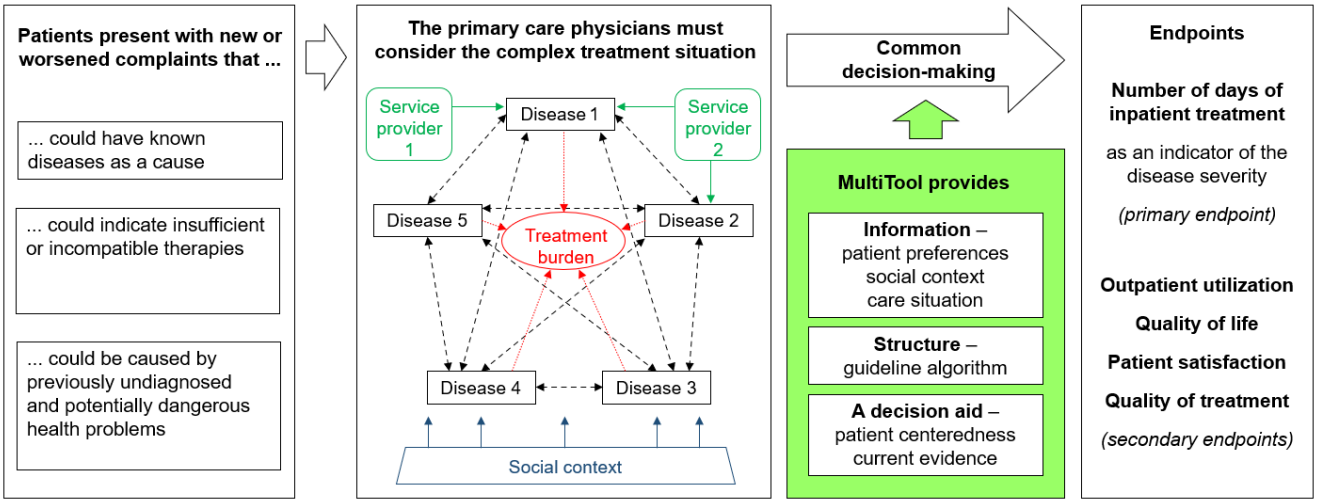
The project aims to develop, implement, and evaluate a computer-based tool. It is designed to support primary care physicians and patients in evidence-based and shared decision-making and to help avoid or shorten patients' potential hospitalizations. Specifically, it is planned to 1) develop a computer-based intervention that addresses the desires and needs of primary care physicians and patients, 2) design a feasibility study and process evaluation to assess this intervention, and 3) evaluate the effectiveness of the intervention in reducing the time spent in the hospital. The project flow is shown schematically in the following figure:



During the development phase, which will last approximately one year, guideline-based focus groups with primary care physicians and patients will be used to consider the wishes and needs from the perspective of these target groups during the implementation of the tool. The tool will then be programmed by an external service provider and tested in a feasibility study for twelve months. Here, the cluster-randomized controlled trial (CRT) will be piloted with 120 patients from 20 primary care practices and accompanied by qualitative interviews and an analysis of the usage data of the tool. The number of cases of the evaluation will be reviewed using the data from the test run and adjusted if necessary. The cluster-randomized controlled trial with 620 patients from 62 family practices in urban and rural regions will be conducted during the evaluation phase. This phase will last three years and use personal interviews with primary care physicians and patients. After data analysis, workshops with the study participants will support the interpretation of the study results. Information about the tool and the study results will be disseminated in professional journals and at (international) professional conferences.

Intervention

The planned intervention will have three main elements: 1) Documentation of information about the patients and the context in which their care takes place, 2) structuring of the consultation using the so-called “meta-algorithm for the care of patients with multimorbidity" from the S3 "Multimorbidity” guideline of the DEGAM, and 3) a patient-centered decision support system that can draw on current evidence. The use of the intervention in the study context is described in the following figure:



The tool includes validated standardized instruments to capture patient preferences, the care situation, and the social context. Common databases for searching current evidence and current primary care treatment guidelines are integrated into the tool. Standardized instruments support the capture of patient preferences, the social context, and the care situation. The “meta-algorithm" from the "Multimorbidity" guideline of the DEGAM provides a structure for joint decision-making and priority setting. For example, a joint decision can be made as to whether the primary focus should be on disease management or the exclusion of preventable dangerous courses of disease. A video tutorial and a manual are provided to train the tool users. The user interface is designed to be simple and intuitive, and there is a strong focus on data security. To support later implementation in care, the tool and documentation will be made permanently available to users on the project homepage, and all elements except technical support will be kept free of charge.