Conquering frailty with a multi-perspective approach

My-AHA Project as an example for integrated platforms, symbiosis of interventions and individualization of support for patients.

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Abstract

Objectives

My-AHA proposes a holistic view of interrelated frailties: cognitive decline, physical frailty, depression and anxiety, social isolation and poor sleep quality, which are a major burden to older adults and social and health care systems. Early detection and intervention are crucial in sustaining active and healthy ageing (AHA) and slowing or reversing further decline. The main aim of My-AHA is to reduce frailty risk by improving physical activity and cognitive function, psychological state, social resources, nutrition, sleep and overall well-being. It will empower older citizens to better manage their own health, resulting in healthcare cost savings. My-AHA will use state-of-the-art analytical concepts to provide new ways of health monitoring and disease prevention through individualized profiling and personalized recommendations, feedback and support.

Methodology

An ICT-based platform will detect defined risks in the frailty domains early and accurately via non-stigmatising embedded sensors and data readily available in the daily living environment of older adults. When risk is detected, My-AHA will provide targeted ICT-based interventions with a scientific evidence base of efficacy, including vetted offerings from established providers of medical and AHA support. These interventions will follow an integrated approach to motivate users to participate in exercise, cognitively stimulating games and social networking to achieve long-term behavioural change, sustained by continued end user engagement with My-AHA. By this, different platforms (Smart Companion, iStoppFalls, etc.) will be connected by the My-AHA Middleware and combine information, data from different sources and a decision support system for choosing the personal interventions. This is tested in a randomized controlled trial across Europe, Japan, South Korea and Australia.

Status report

The project is now in the phase of Alpha testing. For this, the complete assessment for the pre-post design of the RCT is defined and tested for feasibility and manageability. During the first project year, interventions have been defined and analysed for their proven effectiveness and their chance for combination. Also the existing platforms have been selected and the development of the middleware is close to be final. The prototype setup is running and the first tests with participants (Alpha Wave) are running. During this time, experience was gained on the new data protection regulation for EU countries as well as for business chances of interventions and the planned take-up of results. This paper provides a short overview of the projects approach and status.