Conference Abstract

Mobile Health Technology – an offer to postmenopausal women with osteoporosis? A PhD study in Patient@home

Pernille Ravn Jakobsen, PhD student, Centre for Innovative Medical Technology, University of Southern Denmark, Odense University Hospital, Denmark

Uffe Kock Wiil, professor, The Maersk Mc-Kinney Moller Institute, University of Southern Denmark

Jens Søndergaard, professor, Research Unit for General Practice, University of Southern Denmark

Pernille Hermann, Chief Physician, Associate Professor, Dept. of Endocrinology, Odense University Hospital, Denmark

Jane Clemensen, Head of Clinical Research, Centre for Innovative Medical Technology, Denmark

Correspondence to: Pernille Ravn Jakobsen, E-mail: prjakobsen@health.sdu.dk

Abstract

Background: In the Danish health care system, there is increased focus on promoting self-care and empowerment among patients. Future patients are expected to be more involved in their treatment. This will enable them to participate in planning and decisions related to handling a diagnosis. Increasingly, mobile health technology is being recognized as an important and efficient tool in facilitating patient – physician communication and collaboration. This promotes self-care among patients with chronic conditions [1]. Osteoporosis is a skeletal chronic disease that has become recognised as a major health problem in the world. Although the diagnosis of the disease relies on quantitative assessment of bone mineral density, the clinical significance of osteoporosis lies in the fractures that potentially occur. Early detection and treatment of osteoporosis is essential in preventing disabilities due to fractures. It is also essential for improving prognoses, quality of life, and prevention of premature death [2]. Qualitative studies show that women often feel like being in a grey zone between healthy and sick when diagnosed with osteoporosis without having a fracture [3]. In a recent Danish qualitative study concerning women diagnosed with osteoporosis, the findings suggest a need for improved support for the women. This support will help them gain an understanding of their diagnosis and the risk of osteoporotic fracture. It will also help them in learning to live with osteoporosis [4].
**Purpose:** The aim of this study is to design, develop, and test the possibilities of using mobile health technology to increase self-care management and empowerment among women with newly diagnosed osteoporosis.

**Context:** The context of the study is General Practice and Odense University Hospital in the Region of Southern Denmark. The participants are women, age 50-65, diagnosed with osteoporosis without fractures, health care professionals within the field of osteoporosis, The Danish Osteoporosis Foundation, and Mobile Fitness. Mobile Fitness is a company founded and owned by The University of Copenhagen, CAPNOVA A/S, and private investors.

**Methods:** The study will use Participatory Design. Its purpose is to involve the participants in designing a technology solution for self-care management among women with osteoporosis. It consists of three phases. The aim of the first phase is to identify needs of newly diagnosed women with osteoporosis. The second phase aims at, based on the results of the first phase, designing and developing a mobile health technology in a participatory co-creative process, and testing it as a possible viable solution for the women. The aim of the third phase is to, in an intervention; test the mobile health technology’s usability. Field studies are performed with a focus on qualitative methods such as interviews and observations along the three phases.

**Results:** The study started in March 2015, and is now in its first phase, where needs among the women are identified. The first article is planned to be ready for peer review in October 2015. Results from the first phase of the project will be presented at the ETC conference.

**Keywords**

participatory design; self-care; empowerment; mobile health technology; osteoporosis

**References**