

## Information and Communication Technology as a Tool to Increase Accessibility to Care

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It is well established that the industrialized world is witnessing a significant change in the age profile of the population that will challenge the way healthcare is provided to older people. The increased prevalence of healthcare problems and instances of chronic conditions while having less available staff implies that more needs to be done with less resource. It is known that use of information and communication technology (ICT) has been experienced as positive for ill people living at home and their caregivers. eHealth combines the usage of ICT to support the remote monitoring of people with chronic illness in their home environment. This has influenced work of district nurses and has led to the support of such forming an important part of their work. The aim of the study was to describe the experiences of people with chronic illness and assistants who used information and communication technology (ICT) to communicate through picture and sound with the district nurse. A qualitative case study design was chosen and the case comprises one district nurse at a primary healthcare centre and one of her patients, and his assistants. The data collection process included repeated interviews and the district nurse also keeping a logbook. An application of new technology in form of an electronic communication program via a computer with Internet connection was used for communication through picture and sound between the district nurse and the people with chronic illness, their relatives and assistants. The program consists of a virtual room and enables direct communication through use of picture and sound in real time or as saved messages. The communication program enables the people with chronic illness and assistants to get into contact with the district nurse and to communicate about his health status. Data were analysed using content analysis. The results showed that using ICT increased the accessibility to care through the use of picture and sound facility in real time. This was something all the participants experienced as positively. However, the district nurse found it difficult to judge the patient's condition via ICT. It was difficult to make a decision without knowing the patient's prior condition. Nevertheless, all participants felt safe about ICT because the need for accessibility to care related to progression in the case of the chronic illness. In conclusion, the result indicates that information and communication technology increases accessibility to care and nursing for people with serious chronic illness living at home. However, this way of communicating and providing care for these people cannot replace a physical presence, but it could be seen as a complement to nursing care at home.

## ITSE-Assessment Model – A Tool for Evaluating User Satisfaction with Assistive Technology

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Service and Product Development PractiCo<sup>®</sup> Programme at Pirkanmaa University of Applied Sciences has developed a service concept, which aims at improving user involvement in the development of Assistive Technology (AT) devices and services.

To complement the service concept and to enhance the communication between AT developers and end users, a tool for assessing users' satisfaction with variety of AT, ITSE-Assessment Model, has been developed.

ITSE-Assessment Model is a questionnaire that can be used to assess AT from user's perspective, and it is divided into four dimensions. These dimensions are: A) Usability, B) Utility, C) Quality of Service and D) Costs. The questionnaire is a generic instrument, i.e. it can be used for the assessment of all kinds of AT devices and services.

In the development process of the tool (November 2007-December 2008) content validity of the instrument was discussed by a panel of AT experts. Information regarding the feasibility of the instrument was obtained by testing the questionnaire through interviewing AT users. Two testing procedures were organized, where the suitability of the questionnaire for the assessment of variety of AT devices and services was tested. The testing shows that the instrument is functional as the questions are understandable and relevant. According to the feedback from the end users, the potential of ITSE-Assessment Model lies in its examining manner as AT can be assessed very closely from four different dimensions.

ITSE-Assessment Model suits the service concept of PractiCo<sup>®</sup> Programme well due to its customer orientated style. The qualitative information obtained when using ITSE-Assessment Model is extremely valuable for the developers of AT and therefore the next step is to launch the model together with the partners of Pirkanmaa University of Applied Sciences by researching customer satisfaction with AT. In addition to this the questionnaire could be used for sharing information and experiences of AT devices and services by collecting an AT databank. This way information about different AT solutions and enterprises would be available for everyone, and moreover, benefits and lacks of AT would be openly shared for the benefit of AT users, developers and enterprises.