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Rural Barriers: Healthy lifestyles program, using diabetes as a model

D.M. Spokus
Workforce Education/Training and Development, The Pennsylvania State University, USA; e-mail: dms201@psu.edu

Older adults living in rural areas can greatly benefit from the use of increased technology that provides them with access to resources for quality healthcare. Diabetes is reaching epidemic levels and has been increasing steadily in the United States. In addition, many low-income, undereducated older adults are not aware of the risk factors for developing diabetes and other chronic diseases. Complex social and environmental risk factors such as genetics, decreased exercise, inactivity, and obesity are contributors in the increased incidence of diabetes. In addition, a lack of communication may contribute to an incorrect diagnosis, isolation, and decreased interaction between older adults and their practitioners. As a result, a Train-the-Trainer Healthy Lifestyles Program, Using Diabetes as a Model program was developed and implemented in several Pennsylvania communities. The goal of the program was to create public awareness about diabetes. In addition, the program empowered older adults with Internet websites that would provide them with updated news releases on information related to diabetes and healthy lifestyles. The program was successful. However, it illustrated the need for the use of improved technology in order to present the program efficiently and in different formats for older adult participants.

Monitoring the well-being of older people

A. Sixsmith*, N. Hine**, S. Brown***, P. Garner***
*Department of Primary Care, University of Liverpool; **Department of Applied Computing; ***BT Exact, United Kingdom; e-mail: sixsmith@liv.ac.uk

This paper looks at the use of pervasive computing to the provision of care in the community, for older frail people living alone in their own homes. The concept of well-being is explored using a conceptual framework that incorporates person, context and experiential factors. The paper reviews how different aspects of well-being might be monitored within the home of an older person using non-intrusive pervasive sensors and computing devices. The data from these sensors can be used to model the behaviour of an individual, so that long term changes in well-being, that might be early indicators of an underlying physical or psychological condition, can be detected by analysing subtle changes within the behavioural model. The aim of the well-being monitoring system is to provide care workers and carers with an intuitive early warning system to allow appropriate care intervention, leading to a reduction in the cost of care to the state and increased quality of life for the individual.

Usability assessment of telecommunication-based daily living services for the elderly

J. Röning*, I. Alakärppä**, S. Väyrynen**, J. Watzke***
*University of Oulu, Finland; **University of Lapland, Finland; ***Health Technology Research Group , British Columbia Institute of Technology, Vancouver, British Columbia, Canada; e-mail: juha.roning@ee.oulu.fi

The objective of this research is to improve the mobility and daily functions of people of all ages and to promote well-being and safety through the use of new technology. The project emphasizes usability, interaction, enjoyable and positive experience of use and it seeks answers to three questions: (i) What services made possible by modern information and telecommunications technology can support the elderly in living at home? (ii) What kind of location-based services can be smoothly integrated into a mobile terminal? (iii) What is the usability of the services developed? With selected case studies in Finland and Canada, everyday services were evaluated using videophone-based and location-based technologies / services.

A cognitive engineering study of informational care systems at home: From the usability test focusing on workload

K. Ogata*, E.T. Harada**, M. Nambu***, K. Mori**, R. Niizeki**
*R&D Headquarters, Yamatake Corporation, Kanagawa;
**Faculty of Social Sciences, Hosei University, Tokyo;
***Center for Evolutionary Cognitive Sciences, University of Tokyo, Japan;
e-mail: ogata-keiji@jp.yamatake.com

A health management support system for elderly people at home is expected to realize a preventive approach in long term care. In this paper, as the one possibility, the care service system called 'Sukoyaka-Seikatsu' is examined from a cognitive point of view. This system enables regular, long-term communications between a call center and its subscribers via text messaging on the user terminal. In order to acquire the guidelines of better designs of the terminal for minimizing user's workload, the influence by the design of screen switching and the forms of dialogue messages were examined. As the result, four factors were extracted from user's workload. And the design conditions affected the different factors of workload.

New insight for improving productivity in elderly care

H.E. Pirnes
Laurea Polytechnic, Espoo, Finland; e-mail: hannu.pirnes@laurea.fi

This long-term R&D-project aims to provide an answer to the question "How to utilize capability theory-based ideas in the productivity development of elderly care?" Capability theories cite two related sources of advantage: assets are the resource endowments, while capabilities are the glue that holds the assets together and enables them to be deployed advantageously. The division of labour allows network members to specialize in the value-creation activity supported by their own distinctive competence, thus leading to increased efficiency. Relevant factors are: distance between various actors in a value-added chain, the complexity of the value-added chain, time delays and friction factors. The mobilization of vertical and horizontal dynamic networks is an essential element. The key point is the role of centralized coordination of information flows and innovation impulses produced among different actors of the net at different levels. Routine decisions are separated from innovations. Uncertainty is managed by the aid of certain issues. The research plan is continuously corrected on the basis of response. Both research and practical viewpoints are combined. The research project is a complex system consisting of numerous minor or larger single research and development modules, which together create a dynamic network.

Gerontechnology in relation to demand driven care

H.S.M. Kort*, J. van Hoof*,**, F. van Dijken*,**
Faculty Chair Demand Driven Care, Hogeschool van Utrecht, Faculty of Health Care, Utrecht; ** Technische Universiteit Eindhoven, The Netherlands
e-mail: Hilly.Kort@hvu.nl

Demand Driven Care plays a key role in the modernization of the Dutch health care system. This modernization is needed because (i) clients' needs for care increase quantitatively as well as in diversity, (ii) financial means for collective services are inadequate, (iii) accessibility of heath care will depend on clients' own responsibility, and (iv) shortage of professional care givers is foreseen. In the Netherlands, the need for professional care givers increases by an average of 2% every year. Demand Driven Care is an instrument for liberalization of public affairs. The chair of Demand Driven Care focuses on those activities that contribute to sufficient care supply. Within the program of the chair, activities are executed under the theme of 'Integrated Care' and 'Patient Centered Care'. Gerontechnology is a main subject within the theme of 'Integrated Care'. Gerontechnology related products and services can be used as a substitution for support and care given by professional care givers. Different products and services have been developed in order to delay the need for institutional care, but these are not yet commonly used in Dutch health care. The use of gerontechnology products and services is expected to delay the need for institutional care.