TRACK: COMMUNICATION-MANAGEMENT-GOVERNANCE

Presentation: eHealth service

O. BLANSON HENKEMANS, K. KRANENBORG, A. CREMERS, L. ENGBERS. Developing an eHealth service supporting a functional training program for older adults. Gerontechnology 2012;11(2):155; doi:10.4017/gt.2012.11.02.346.00 Purpose TNO, the independent Dutch research organization, developed a functional training program for older adults helping them to live independently at home1. Older adults attended group meetings and practiced Activities of Daily Living (ADLs), such as walking stairs and doing the laundry. Due to the character of the training, these developed skills are highly transferable to the home situation. In fact, the training is more effective when the exercises are continued at home. TNO studied requirements and functionalities for an eHealth service, facilitating exercising at home. Method TNO and the Royal Dutch Physiotherapist Association (KNGF) organized three 4-hour workshops with physiotherapist (n=20), from different locations in the Netherlands. During the workshops, we applied the Cognitive Engineering approach²⁻³ and (i) conducted a domain analysis and categorized issues currently experienced by care givers and clients; (ii) took stock of current and envisioned technology possibilities with invited eHealth developers; (iii) listed requirements and functionalities; (iv) prototyped an eHealth support service; and (v) reviewed the prototype and refined the requirements and functionalities. Results & Discussion Clients and carers have mutual misconceptions about their respective roles in the treatment; clients are not sufficiently engaged in the care process and carers have difficulties motivating their clients. Carers need to increase the use of clinical instruments to monitor treatment effect and there is no systematic approach for post-treatment care. Similarly, the eHealth service must inform and involve clients in the treatment, stimulate the clients to take responsibility for their own treatment and to self-manage. This requires the carer to be able to remotely monitor, inform and coach the client; it also requires facilitation of social support (peers, informal care). The eHealth service prototype functionalities contain information about illness and treatment and clinical instruments to monitor health (Figure 1). The eHealth service prototype includes a calendar, appointments booking, and an overview of treatment and self-management activities. It also contains an exercises database and offers incentives to reinforce positive behavior. Our next step is to develop an implementation plan. TNO and KNGF are currently hosting two workshops with physiotherapists and are developing an implementation road map. The prototype will also be evaluated on usability with end users.

References

- 1. TNO. Functionele Training Ouderen; www.tno.nl/content.cfm?context=thema&content=thema_case& laag1=891&item_id=1721; retrieved March 30, 2012
- 2. Blanson Henkemans OA. ePartner for Self-Care: How to Enhance eHealth with Personal Computer Assistants. PhD Thesis. Delft: University of Technology; 2009
- 3. Neerincx MA. Situated cognitive engineering for crew support in space. Personal and Ubiquitous Computing 2011;15(5):445-

456; doi:10.1007/s00779-010-0319-3

Keywords: aging in place, self-management, cognitive

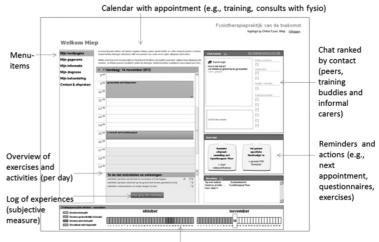
engineering

Affiliation: TNO, Leiden, Netherlands

E: oli-

vier.blansonhenkemans

@tno.nl Full paper: No



Progress versus plan
Figure 1. Interface of eHealth service supporting functional training program for older adults