Self management of stroke supported by assistive technology

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***Abstract*—This presentation will describe our study which aims to examine the principles of technology-supported self management in the rehabilitation of stroke as a long term condition by integrating the mixed qualitative research and user-centered design methods.**

Keywords-Self management, stroke, assistive technology, user-centered desing

I. INTRODUCTION

The aim of the project is to develop a personalized self management system (PSMS) incorporating commonly encountered technologies such as GPS tracking, mobile devices, wrist sensors, pedometry and life style or activity monitoring to assist stroke patients to self manage their condition at home.

The conceptual matrix for the stroke PSMS incorporates patients' clinical needs, SMART-End goals [1] negotiated with the therapists together with therapeutic interventions and feedback mechanisms provided by technology to promote behavior change (Fig. 1).

We are applying a hybrid methodology mixing Health and Social Sciences Qualitative Research Methods with User-Centered Design Methods. Data is being collected through a series of focus groups, one-to-one in-depth interviews, non-participant observation and cultural probes method [2] to provide qualitative data about the potential users of the system. The aim is to develop a deep understanding of the target users and the context in which the PSMS will operate.

The User-Centered Design approach is goal-directed not task-oriented, which allows the researchers to understand the users' motivations in performing a task [1].

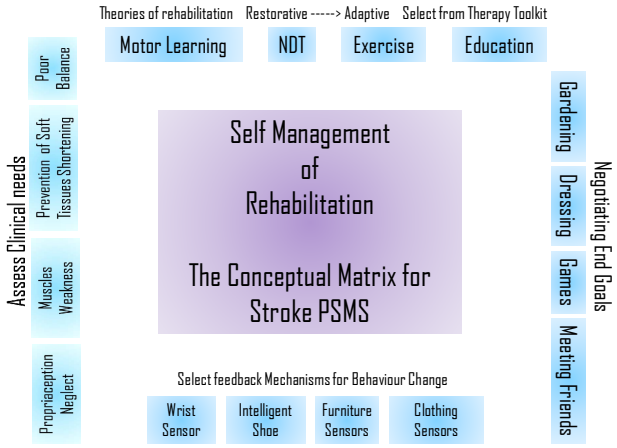

Figure 1.Conceptual Matrix for the PSMS

As a result, a number of user models named personas and narrative descriptions of personas termed scenarios are being created to inform concept design and the subsequent iterative prototyping design [1].

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REFERENCE

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