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Adaptive Daily Rhythm Atmospheres for Stroke Patients - A patient evaluation

Keywords: healing environments, stroke, patient room, user evaluation

This paper addresses the evaluation in a lab setting with former stroke patients and their spouses of an in-patient environment that supports patients, family, nursing staff and medical specialists during the recovery process of neurological patients and especial patients recovering from a stroke (Daemen, et al., 2011). We describe the methods that were used to evaluate the Adaptive Daily Rhythm Atmospheres (ADRA) concept. ADRA supports the daily rhythm of the patient by generating dedicated multisensory atmospheres for different phases throughout the day (Flinsenberg, et al., 2012). Where needed, the atmosphere can adapt to specific interrupts and visits, for example, when a doctor is visiting (PhilipsResearch, 2011) (see Figure 1).

Figure 1 - Left: Going to bed Phase - Right Clinical Phase - doctors round

The goal of our patient evaluation was to gauge expectations against the different phases of the ADRA concept both qualitatively and quantitatively to determine if the different phases are useful, usable and desirable for the patient. Six former stroke patients, recruited through the national stroke center of the Netherlands, and their spouses were invited to the lab for a user evaluation of 1 hour where they experienced every phase of ADRA. Then we asked them for all the different phases of ADRA, if this phase would have helped them, during their stay in the hospital. They were asked to give a score on a 10 point Likert scale, especially designed for stroke patients (Daemen, et al., 2007)(see Figure 4). Next an interview took place with the patient and their spouse.

Figure 2 - 10 point Likert scale designed for stroke patients

The results show that the patients believe that most of the different phases of the ADRA concept would have helped them while being in the hospital with the waking up phase as most positive (mean 8) (See Table 1 Results User study).

Table 1 Results User study

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The visitors phase scored the lowest with a mean of 5.3. The qualitative evaluation results are used to further improve the design of healing environments in general and the ADRA concept in particular, before starting with a clinical trial in a hospital environment.

References