Cross-sectional study for detecting used environmental factors and their significance for the participation of people living at home after stroke

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Keywords: Environmental factors; Stroke; Participation; Devices; Caregiver

Introduction.– The aim of this study is to deepen the knowledge about the importance of the use of and the interaction between environmental factors in relation to promoting the participation of people living at home after stroke.

Method.– A structured interview provides quantitative data concerning devices, family members aids, and services, and qualitative data concerning the importance of the aids, in seven participation domains, used by 49 people in Southern Switzerland after stroke.

Results.– The family is the most important environmental factor. The devices are seen as “important” or “very important” and are used for personal mobility and hygiene. Services are mostly used in the activities related to hygiene and leisure. Combinations of usage patterns were found in all activity groups.

Discussion.– Devices, family members and services are in a complex relationship. A stable communication system between all stakeholders is needed to take advantage of the promoting nature of environmental factors. The role of the occupational therapist is to ensure the maximum benefit for user participation.

Further reading
Rentsch HP (2005), Law M (1996), Noreau L, Boschen K (2010), Dijkers MP

Impact of a multidisciplinary rehabilitation program on the “preparing meals” in people with acquired brain injury (ABI)

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Keywords: Program; Participation; Activity “Preparing meals”

Background.– Cognitive and behavioural difficulties following acquired brain injury (ABI) may lead to severe limitations in activities and restrictions in participation. A holistic, intensive and multidisciplinary ABI rehabilitation program was developed at the Pitié-Salpêtrière hospital, France (5 days/week for 7 weeks).

Objective.– To document the program’s effect on the activity “preparing meals”.

Method.– Repeated measurements pre-program (T1 and T2) and post-program (T3, T4, T5 up to 6 months) with 7 subjects using the Cooking Task (CT) (Chevignard, 2000), Instrumental Activities of Daily Living (IADL) (Bottari, 2009), and Measure of Life Habits (LIFE-H) (Noreau, 2002).

Results.– Using the two standard deviation band method and “non-overlap of all pairs” (NAP) methods for small n design, significant differences in pre and post program measures were found for the total number of errors in CT (6/7 subjects), the need of assistance (IADL). The results of the LIFE-H suggest an overall improvement in the activity “preparing a meal” after the rehabilitation program.

Objective.-- We examined whether rehabilitation professionals used shopping malls to evaluate and treat persons with a disability and if so, how this environment was used. We were also interested in the factors contributing to or hindering a mall’s use in rehabilitation.

Methods.-- Fifteen rehabilitation professionals from multiple disciplines participated in a 3-hour focus groups lead by a facilitator using an interview protocol.

Results.-- Ten professionals reported using the mall regularly in their practice for different objectives such as developing their client’s way-finding or walking abilities. They were more likely to use a mall when patient goals included going to the mall. Factors influencing mall use included the accessibility of the malls’ interior (e.g. ease of circulation), respect of the clients’ needs, and transportation to the mall.

Discussion.-- Malls may provide an appropriate ecologically valid environment in which to evaluate and treat persons with a disability.

Keywords: Accessibility; Activity; Participation; Evaluation; Treatment

P310-e
A new scale measuring complexity in neurologic rehabilitation patients: Oxford Case Complexity Assessment Measure (OCCAM)
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Introduction.– There are only few scales evaluating complexity. Objective of study was to evaluate a new developed 81-point scale based on biopsychosocial model, which is OCCAM.
Methods.– We analyzed 110 patients admitted to the neurorehabilitation unit at the Oxford Centre for Enablement (OCE) during the period from January to August 2012. OCCAM questionnaire, the Rehabilitation Complexity Scale (RCS), the INTERMED scale, and team judgment score (from 0–10) were administered to establish validity. Phase 2: inter-rater agreement of OCCAM was evaluated. Phase 3: test-retest agreement was performed. The ability of OCCAM to predict length of stay more than 80 days and no home discharge was analyzed using statistics methods.

Results.– Internal consistency moderate overall OCCAM scale (Cronbach’s α coefficient 0.69). Significant correlation was found between OCCAM and INTERMED ($r = 0.694$, $P < 0.001$), RCS-E ($r = 0.736$, $P < 0.001$) team judgment ($r = 0.796$, $P < 0.001$). Inter-rater agreement was excellent (Weighted $k = 0.95$, $P < 0.001$). Excellent correlation between admission and discharge scores observed ($r = 0.917$, $P < 0.001$) Test–retest agreement was good (intraclass correlation coefficient 0.86). Patients with prolonged LOS had higher mean admission OCCAM (38.6 ± 12.2 versus 32.9 ± 13.7, $P = 0.04$). ROC curve of OCCAM to predict LOS > 80 days showed poor discrimination (c-statistic = 0.657; 95% CI: 0.508–0.806). Patients not discharged home had higher mean admission OCCAM score (48.0 ± 13.7 versus mean 32.1 ± 10.7, $P < 0.001$). ROC curve of OCCAM to predict no home discharge showed good discrimination (c-statistic = 0.815; 95% CI: 0.680–0.950). Optimal cut-off of OCCAM to detect patients not discharged home was $\geq 34$ (sensitivity = 84.6%, specificity = 62.8%).

Discussion.– The OCCAM valid reliable scale to measure complexity. Could be useful to identify patients who will not be discharged home easily from early stages. Further studies needed to confirm results.

Further reading
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# Functional gains as measured by the functional assessment measure (FIM+FAM)

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**Keywords:** FIM+FAM; Functional Recovery; Rehabilitation

**Objective.** – To quantify functional gains of inpatients subjected to a rehabilitation program in a general hospital.

**Materials and methods.** – Observational study using clinical notes from patients admitted to the rehabilitation ward in the 18-month period between January 1st 2012 and May 30th 2013. Patients diagnosis was established according to Inpatient Rehabilitation Facility-Patient Assessment Instrument (IRF-PAI). FIM+FAM were registered at admission and discharge.

Collected data was statistically analyzed using the Statistical Package for the Social Sciences version 18 of Windows (SPSS). Statistical significance level considered was $P < 0.05$.

**Results.** – In total, 52 patients met the inclusion criteria, 41 male and 11 female. The average age was 58 years. The average length of stay was 34 days. The average gain of FIM+FAM was 38/210, paired-samples t-test ($P = 0.001$). Diagnosis did not have a significant effect over length of hospital stay ($P = 0.155$). Age was inversely related to functional gains ($r = -0.26$) and has an effect over place of discharge ($P = 0.016$).

**Discussion.** – FIM+FAM was found to be useful in assessing rehabilitation progress in this heterogeneous group of patients.

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