Effectiveness of a reality orientation program to geriatric inpatients and its outcome after discharge

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- cognitive function
- Mini-Mental State Examination
- discharge (from hospital)

Introduction
Hospital admission predisposes elderly patients to disorientation.

Objectives
This study aimed to examine the effectiveness of an orientation program in enhancing the cognitive and orientation function of geriatric inpatients and its outcomes after discharge.

Methodology
All patients admitted to the Geriatric Unit in Grantham Hospital during June 2011 to December 2012 were recruited. Subjects with Mini-Mental State Examination (MMSE) score 10 or above and MMSE time- or place- orientation subscore 3 or below were included. Eligible subjects were randomly assigned to intervention or control group. Written consent was obtained. Intervention consisted of a reality orientation program conducted by an occupational therapist in the occupational therapy department. The intervention group attended 6 sessions (each lasted 30 minutes) over 6 days. Both groups received usual occupational therapy. Outcome measures included MMSE scores and Neurobehavioral Cognitive Status Examination (NCSE) – orientation subscore. These would be measured on admission, before discharge and at 2 months after discharge. Independent t test and chi square test were used to compare the outcomes before and after the program. A p-value of <0.05 is regarded as statistically significant.

Result
115 subjects (56 intervention and 59 control) were recruited. There were no significant difference in age (80.45 vs 79.84 years p=0.736), gender (female 62.5% vs 61.0%, p=0.87), place of residence (home 87.3% vs 85.5%, p=0.781), mobility status (ambulatory 96.4% vs 93.1% p=0.346), functional status (Barthel index 67.6 vs 64.0
p=0.391) in intervention and control groups. The baseline MMSE total score, time- and place- orientation subscores (17.6 vs 17.5 p=0.892; 1.91 vs 1.75 p=0.490; 2.43 vs 2.24 p=0.462 respectively), and NCSE orientation subscore (5.77 vs 5.34 p=0.391) in intervention and control groups were similar statistically. After the orientation program, the intervention group had significantly higher MMSE total score (20.57 vs 18.80, p=0.049), MMSE time-subscore (3.13 vs 2.20, p=0.002), MMSE place-subscore (4.00 vs 2.63, p=0.000) and NCSE orientation subscore (7.82 vs 6.15, p=0.011). However, at two months after discharge, all these comparisons became non-significant (MMSE total score 19.61 vs 18.81, p=0.490; MMSE time-subscore 2.70 vs 2.51, p=0.541; MMSE place-subscore 3.25 vs 2.80, p=0.135; NCSE orientation subscore 7.63 vs 6.93, p=0.363). Conclusion: An orientation program is effective in improving the cognitive and orientation function of geriatric inpatients. However, these functions cannot be maintained at two months when the program stopped.