

Centre for Neuro Skills Presents an Abstract

Outcome After Post-Acute Rehabilitation in Traumatic Brain Injury Patients.

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Objective: To investigate if benefits of post-acute rehabilitation for traumatic brain injury (TBI) are sustained after discharge.

Design: Cohort study.

Setting: Private post-acute rehabilitation clinic.

Participants: TBI patients that participated in a full-time comprehensive post-acute rehabilitation program (n=16) were interviewed by phone at least 1 year after discharge (5.25 ± 2.34). The mean latency from TBI was 7.36 ± 2.61 yrs. All had at least 12 years of education.

Main Outcome Measures: Discharge measures: Disability Rating Scale (DRS), Mayo-Portland (MPAI). Follow-up measures: Neuro-QoL, Supervision Rating Scale (SRS), Brief Test of Adult Cognition by Telephone (BTACT) and an occupational status questionnaire.

Results: Analysis of employed and unemployed subjects, at follow-up, revealed that 43.75% had an occupation of equal position to that before injury. Employed subjects had lower disability at discharge compared to unemployed. Disability rates decreased over time in the employed subjects whereas they remained stable in the unemployed as observed through repeated measures ANOVA [$F(1, 14)=5.92, P<.05$]. DRS at discharge, was correlated with the below listed follow-up measures (all $p<0.05$): immediate ($r=0.54$) and delayed word recall ($r= -0.51$), category fluency ($r= -0.61$). Significant correlations were found for SRS($r=0.61$) and satisfaction with social roles ($r=0.7$). Similar findings were found for MPAI. Neuro-Qol analysis showed all subjects' levels of anxiety ($x:52.03$, CI:51-54) and post-affect/wellbeing ($x:55.22$, CI:53-57) as similar to normal population. Those that were working also showed positive levels for social participation ($x:54.25$, CI:52-57), cognitive function ($x:47.63$, CI:46-49) and social satisfaction ($x:49.25$, CI:47-51).

Conclusions: Individuals with a good rehabilitation outcome are more likely to regain their former occupation and quality of life. These preliminary findings support the sustainability of the beneficial effects of rehabilitation over a long period of time.

Key words: Traumatic brain injury, rehabilitation, outcome, follow-up