

Physical Activity Patterns during Inpatient Rehabilitation in Patients with Recent Brain Injury

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Abstract : Understanding that physical activity in rehabilitation programs shapes outcomes in acquired brain injury (ABI) populations is not a new concept. However, there is a void in understanding the physical activity patterns of inpatients in ABI rehabilitation, the trajectory of physical activity recovery, and factors that contribute to the recovery of physical activity over the initial months post-ABI. The purpose of this study was to determine if physical activity patterns vary in people with recent ABI in inpatient rehabilitation. The study also investigated differences in physical activity patterns in ABI patients compared to age-related healthy participants. Results revealed that ABI patients spent approximately 6.7 times longer per day in sedentary postures than in active positions. In comparison, the control group spent only 2.8 times longer in sedentary postures compared to active positions. Patients with ABI took significantly fewer steps than age-matched health control participants. Within the ABI population, patients took 0.78 times fewer steps on weekends compared to weekdays. Participants with greater mobility limitations had a greater difference in WD to WE steps taken. Potential reasons could be from no structured weekend rehabilitation programs, lower availability of staff, or varying schedules. Given that the rehabilitation program is only structured on weekdays, further research to investigate the benefits of structured physical activities like group walking programs on weekends for ABI patients in inpatient rehabilitation programs is warranted.

Keywords : brain, ABI, TBI, rehabilitation

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