

sleep. The impact of tDCS upon cognition, however, was less clear. In order to maximise the use of tDCS as a sleep optimisation technique, high-quality studies, specifically designed to optimise sleep in older adults which assess subjective and objective sleep as the primary outcome measure, are necessary.

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P1220

Poster Session-Neurology-Day 3 (Poster)

The role of sleep in neurorehabilitation processes in subacute stroke patients: A longitudinal observational study

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Introduction: Sleep plays a crucial role in cognitive functioning, emotional regulation, and physical recovery, all of which are essential components of the rehabilitation process for stroke survivors. Understanding the complex interplay between stroke rehabilitation and sleep is essential for optimizing treatment strategies and enhancing patient outcomes. The present study investigated sleep characteristics and rehabilitation outcomes to explore their relationship in patients recovering from subacute stroke.

Method: Eighteen patients (11 males; 66.9 ± 11.6 years) in a post-stroke rehabilitation program were enrolled. This longitudinal observational study (2 weeks) employed self-reported sleep questionnaires (Pittsburgh Sleep Quality Index, PSQI; Insomnia Severity Index, ISI; Epworth Sleepiness Scale, ESS) administered at the initial phase (T0). Prospective sleep and rehabilitation measures were longitudinally collected using Pittsburgh Rehabilitation Participation Scale (PRPS), wrist actigraphy (ActiWatch) and sleep diaries. Functional independence (Barthel Index), motor performance (Nine-Hole Peg Test, NHPT; 10 Meter Walk Test, 10MWT) and motor imagery (Imagery Performance Index, IPI) were evaluated at T0 and at the end of the two-week protocol (T1). Comparison analyses (*t*-test or Wilcoxon) and analysis of variance (one-way ANOVA) were conducted to observe any variation over the observation period. Further, correlation analyses (Pearson or Spearman correlations) were performed to investigate the relationship between rehabilitation outcomes and sleep-related aspects.

Results: Significant improvements were observed in Barthel Index ($p < 0.001$), and motor performance (NHPT, 10MWT) ($p = 0.02$) from T0 to T1. The correlation analyses showed, consistent with the hypotheses, a relationship between better motor performance and higher level of independence ($r = -0.66$; $p = 0.03$) and participation ($r = -0.63$; $p = 0.04$). Finally, we observed worse motor performance in patients with more severe insomnia symptoms ($r = -0.47$;

$p = 0.04$), and a greater degree of independence negatively correlated with the time spent sleeping ($r = -0.73$; $p < 0.001$).

Conclusion: In this study it was highlighted that independence and participation correlate with motor performance, and that some sleep measures correlate with the level of patient autonomy and rehabilitation outcomes. This underscores the need to consider sleep characteristics in these patients to establish more effective rehabilitation protocols.

Conflict of Interest: No.

P1222

Poster Session-Neurology-Day 3 (Poster)

Establishing psychometric evidence of the novel patient-reported Functional Impacts of Narcolepsy Instrument (FINI) using data from observational and phase 2 clinical trials in narcolepsy

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Introduction: Narcolepsy-specific tools to assess disease impact currently do not exist. The Functional Impacts of Narcolepsy Instrument (FINI) is a novel 28-item patient-reported outcome (PRO) measure developed to evaluate treatment outcomes in people with narcolepsy type 1 (NT1) and type 2. This study aimed to validate and explore the psychometric properties of the FINI using data from two narcolepsy studies.

Method: Psychometric properties of the FINI were evaluated using pooled data from a stand-alone observational study in patients with NT1 ($n = 126$) and a Phase 2 clinical trial ($n = 125$; NCT04096560). Reliability, validity (convergent and known-groups) and sensitivity to change were evaluated, and scale structure was defined and confirmed using exploratory factor analysis (EFA) and Rasch analysis. Meaningful within-patient change (MWPC) thresholds were defined using an anchor-based approach.

Results: EFA results supported a 6-domain model (Tiredness, Cognitive Functioning, Cataplexy, Social Activities, Everyday Activities, and Everyday Responsibilities). Rasch analysis confirmed FINI is multidimensional with each domain independently assessing a core concept of narcolepsy. FINI domains demonstrated good internal consistency (Cronbach's alpha >0.77) and moderate-to-strong test-retest reliability (ICCs: 0.61–0.86). Known-groups validity was supported by higher domain scores with increasing severity ratings on the Epworth Sleepiness Scale (ESS), Clinical Global Impression of Severity (CGI-S), and Patient Global Impression of Severity (PGI-S). Convergent validity was supported by strong correlations of FINI domains with other PROs assessing similar concepts, including EQ-5D-5L, Functional Outcomes of Sleep Questionnaire