April 2024

NeuroBITE NEWSLETTER

Welcome to the April 2024 edition of our monthly NeuroBITE newsletter!

We are thrilled to present this feature to our supporters and anyone intrigued by research on cognitive, behavioral, and other treatments for psychological challenges stemming from acquired brain impairment (ABI). Inside, you will discover a curated list of compelling intervention studies recently added to the NeuroBITE database.

This month we are highlighting a systematic review of teleneuropsychological rehabilitation which is Open Access!! Additionally, were are pleased to announce our presence on LinkedIn. Simply click on the LinkedIn button in the bottom right corner of the page to find our page.

Happy reading!

Dementia

Hockley, A., Moll, D., Littlejohns, J., Collett, Z., & Henshall, C. (2023). Do communication interventions affect the quality-of-life of people with dementia and their families? A systematic review. *Aging & Mental Health*, 1-10. **OPEN ACCESS**

Wauters, L. D., Croot, K., Dial, H. R., Duffy, J. R., Grasso, S. M., Kim, E., ... & Henry, M. L. (2023). Behavioral Treatment for Speech and Language in Primary Progressive Aphasia and Primary Progressive Apraxia of Speech: A Systematic Review. *Neuropsychology Review*, 1-42. **OPEN ACCESS**

Dementia - Alzheimer's Disease

Lok, N., Tosun, A. S., Lok, S., Temel, V., & Aydın, Z. (2023). Effect of physical activity program applied to patients with Alzheimer's disease on cognitive functions and depression level: a randomised controlled study. Psychogeriatrics, 23(5), 856-863.
PEDro-P score: 6/10

Epilepsy

Moncrief, G. G., Aita, S. L., Tyson, B. T., Abecassis, M., Roth, R. M., Caller, T. A., ... & Jobst, B. C. (2021). Self-rated executive dysfunction in adults with epilepsy and effects of a cognitive-behavioral intervention (HOBSCOTCH). *Epilepsy & Behavior*, 121, 108042.
PEDro-P score: 5/10

Epilepsy / Stroke / TBI

Naamanka, E., Salakka, I., Parkkila, M., Hotti, J., & Poutiainen, E. (2023). Effectiveness of teleneuropsychological rehabilitation: Systematic review of randomized controlled trials. *Journal of the International Neuropsychological Society*, 1-18. **OPEN ACCESS**

Stroke

Embrechts, E., McGuckian, T. B., Rogers, J. M., Dijkerman, C. H., Steenbergen, B., Wilson, P. H., & Nijboer, T. C. (2023). Cognitive and motor therapy after stroke is not superior to motor and cognitive therapy alone to improve cognitive and motor outcomes: new insights from a meta-analysis. *Archives of Physical Medicine and Rehabilitation,* 104, 1720-1734.

Ford, M. E., Geurtsen, G. J., Schmand, B., Groet, E., Van Bennekom, C. A., & Van Someren, E. J. (2023). Can people with poststroke insomnia benefit from blended cognitive behavioral therapy? A single case experimental design. *Brain Impairment*, 24(3), 696-720. **OPEN ACCESS**
RoBiNT score: 16/30

Jiang, C., Li, Z., Wang, J., Liu, L., Luo, G., & Zheng, X. (2023). Effectiveness of repetitive transcranial magnetic stimulation combined with a brief exposure procedure for post-stroke posttraumatic stress disorder. *Journal of Affective Disorders*, 326, 89-95.
PEDro-P score: 7/10

Sun, Q., Xu, H., Zhang, W., Zhou, Y., & Lv, Y. (2022). Behavioral Activation Therapy for Subthreshold Depression in Stroke Patients: An Exploratory Randomized Controlled Trial. *Neuropsychiatric Disease and Treatment*, 18, 2795-2805. **OPEN ACCESS**
PEDro-P score: 7/10

TBI

Shirvani, S., Davoudi, M., Shirvani, M., Koleini, P., Hojat Panah, S., Shoshtari, F., & Omidi, A. (2021). Comparison of the effects of transcranial direct current stimulation and mindfulness-based stress reduction on mental fatigue, quality of life and aggression in mild traumatic brain injury patients: a randomized clinical trial. *Annals of General Psychiatry*, 20(1), 33. **OPEN ACCESS**
PEDro-P score: 5/10

Ratings

NeuroBITE also evaluates the methodological rigor (methodological quality) of primary studies that use a control condition to demonstrate the efficacy of a treatment. The primary studies involved are randomised controlled trials (RCTs), non-RCTs, and single-case experimental designs (SCEDs). Two method quality rating scales are used: the PEDro-P Scale to rate RCTs and nRCTs, and the Risk of Bias in N-of-1 Trials (RoBiNT) Scale to rate SCEDs. For more information, and to learn how to critically appraise studies using these scales, please visit our Rating Information and Training pages.

PEDro-P Scale
The PEDro-P Scale consists of 11 items (10 of which contribute to the total score). Often, complex (behavioural) intervention studies can only score a maximum of 8/10 because it is difficult to meet criteria on the two PEDro items for blinding participants and blinding therapists given the nature of behavioural interventions. For score interpretation, by convention, a score of 6 or more on the PEDro Scale is considered to reflect 'moderate' or 'good' methodological quality.

RoBiNT Scale
The RoBiNT Scale consists of two subscales: the Internal Validity (IV) Subscale (7 items) and the External Validity and Interpretation (EVI) Subscale (8 items). Items are rated on a 3-point scale (0-2), resulting in a maximum score of 14 for the IV Subscale, 16 for the EVI Subscale, and 30 for the total score. Score interpretation for the IV subscale, which reflects the methodological rigor (methodological quality) of a study, uses a validated algorithm, which is described in a supplement (Perdices, Tate & Rosenkoetter, 2019) to the RoBiNT Manual. The algorithm classifies the weighted scores of the seven IV Subscale items into six categories of methodological rigor, ranging from 'very high' to 'very low'.