NeuroBITE
NEWSLETTER

Welcome to the August 2024 edition of the NeuroBITE newsletter!

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We are delighted to share this month's highlights with our community, featuring the latest research on cognitive, behavioural, and other treatments for psychological challenges arising from acquired brain impairment (ABI). Inside, you'll find a carefully curated list of new intervention studies recently added to the NeuroBITE database.

August's list of studies includes six open-access articles available for instant, free download! We would also like to highlight a noteworthy randomized controlled trial by Yang et al. (2024), examining the effect of sport stacking on cognition in patients with Alzheimer's disease and mild cognitive impairment. This paper boasts an impressive PEDro-P score of 8/10, ensuring high-quality research.

Happy reading!

Dementia

Jenewein, J., Moergeli, H., Meyer-Heim, T., Muijres, P., Bopp-Kistler, I., Chochinov, H. M., & Peng-Keller, S. (2021). Feasibility, acceptability, and preliminary efficacy of Dignity Therapy in patients with early stage dementia and their family. A pilot randomized controlled trial. *Frontiers in Psychiatry* 12, 1-11. **OPEN ACCESS**
PEDro-P score: 6/10

Dementia - Mild Cognitive Impairment

Hwang, H.-F., Tseng, K.-C., Chen, S.-J., Yu, W.-Y., Chen, C.-Y., & Lin, M.-R. (2023). Effects of home-based computerized cognitive training and tai chi exercise on cognitive functions in older adults with mild cognitive impairment. *Aging & Mental Health*, 27(11), 2170-2178.
PEDro-P score: 6/10

Yan, J., Li, X., Guo, X., Lin, Y., Wang, S., Cao, Y., Lin, H., Dai, Y., Ding, Y., & Liu, W. (2023). Effect of Multicomponent Exercise on Cognition, Physical Function and Activities of Daily Life in Older Adults With Dementia or Mild Cognitive Impairment: A Systematic Review and Meta-analysis. *Archives of Physical Medicine & Rehabilitation*, 104(12), 2092-2108.

Dementia - Alzheimer's Disease, Mild Cognitive Impairment

Yang, Z., Yang, J., Yu, D. S., Liu, D., & Ding, F. (2024). Effects of sport stacking on cognition in patients with mild Alzheimer's disease and MCI: Preliminary findings of randomized controlled trial. *Journal of Geriatric Psychiatry and Neurology*, 37(1), 24-38. **OPEN ACCESS**
PEDro-P score: 8/10

Dementia - Parkinson's DIsease

Roßkopf, S., Wechsler, T. F., Tucha, S., & Muhlberger, A. (2023). Effects of facial biofeedback on hypomimia, emotion recognition, and affect in Parkinson's disease. *Journal of the International Neuropsychological Society*, 1-10. **OPEN ACCESS**
PEDro-P score: 5/10

Shah-Zamora, D., Anderson, S., Barton, B., & Fleisher, J. E. (2024). Virtual group music therapy for apathy in Parkinson's disease: A pilot study. *Journal of Geriatric Psychiatry and Neurology*, 37(1), 49-60. (Case series)

Stroke

Ooi, J., & Steverson, T. (2023). Acceptance and commitment therapy (ACT) for post-stroke adjustment difficulties via telerehabilitation in a working-age man. *Cognitive Behaviour Therapist* 16, e31, 1-20. **OPEN ACCESS**
RoBiNT score: 7/30

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Osborne, C. L., Pool, C. L., & Juengst, S. B. (2023). Feasibility of problem-solving training during inpatient rehabilitation in patients with stroke. *American Journal of Occupational Therapy*, 77(1), 1-9. (Case series)

Stroke / Traumatic Brain Injury / Brain Tumour

Fletcher, K., Wydera, S., Thorpe, N., Radford, K., das Nair, R., & Booth, V. (2023). A rapid realist review of clinical neuropsychology rehabilitation programmes to improve psychological wellbeing and quality of life for people with acquired brain injuries. *Neuropsychological Rehabilitation*, 1-36. **OPEN ACCESS**

Stroke / Parkinson's Disease / Epilepsy / Multiple Sclerosis

Gandy, M., Heriseanu, A. I., Balakumar, T., Karin, E., Walker, J., Hathway, T., Bisby, M. A., Scott, A. J., Dudeney, J., Fisher, A., Titov, N., & Dear, B. F. (2023). The wellbeing neuro course: A randomised controlled trial of an internet-delivered transdiagnostic psychological intervention for adults with neurological disorders. *Psychological Medicine*, 53(14), 6817-6827. **OPEN ACCESS**
PEDro-P score: 7/10

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'.