

December 2023

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# NeuroBITE

## NEWSLETTER

***Welcome to the first monthly NeuroBITE newsletter!***

***We are excited about bringing this new feature to our supporters, as well as anybody interested in research on cognitive, behavioural and other treatments for psychological problems and issues occurring as a consequence of acquired brain impairment (ABI)! Here you can find a list of interesting intervention studies that have recently been added to NeuroBITE database.***

***Happy reading!***

### **TBI**

Chen, S.-M., Chen, W.-L., Tai, C.-J., Hsieh, S.-H., Lin, C.-K., Chen, P.-Y., Huang, H.-C., Fan, Y.-C., & Chiu, H.-Y. (2023). Effects of self-administered acupressure on fatigue following traumatic brain injury: A randomized controlled trial. *The Journal of Head Trauma Rehabilitation*. Advance online publication.

**PEDro-P score: 8/10**

McShan, E. E., Juengst, S., Douglas, M. E., Noorbakhsh, D., Calhoun, S., Bennett, M., Suhalka, A., Dubiel, R., & Driver, S. (2023). Efficacy of a group-based education intervention for people with traumatic brain injury: supplementary results from a 12-month randomized controlled trial. *Brain Injury*, 1-10.

**PEDro-P score: 6/10**

### **mTBI**

Tracey, A. J., Bateman, A. G., Baez, S. E., & Covassin, T. (2023). Effectiveness of interventions for the improvement of mental health and well-being post-concussion: a systematic review. *Brain Injury*, 1-24.



Wright, J., Sohlberg, M. M., McIntosh, K., Seeley, J., Hadley, W., Blitz, D., & Lowham, E. (2023). What is the effect of personalized cognitive strategy instruction on facilitating return-to-learn for individuals experiencing prolonged concussion symptoms?. *Neuropsychological Rehabilitation*, 33(7), 1177-1206.

**RoBiNT score: 16/30**

## Stroke

Gong, C., Hu, H., Peng, X.-M., Li, H., Xiao, L., Liu, Z., Zhong, Y.-B., Wang, M.-Y., & Luo, Y. Therapeutic effects of repetitive transcranial magnetic stimulation on cognitive impairment in stroke patients: A systematic review and meta-analysis. *Frontiers in Human Neuroscience*. Advance online publication. **OPEN ACCESS**

Haire, C. M., Vuong, V., Tremblay, L., Patterson, K. K., Chen, J. L., & Thaut, M. H. (2021). Effects of therapeutic instrumental music performance and motor imagery on chronic post-stroke cognition and affect: A randomized controlled trial. *NeuroRehabilitation*, 48(2), 195-208. **OPEN ACCESS**

**PEDro-P score: 6/10**

Proffitt, R., Boone, A., Hunter, E. G., Schaffer, O., Strickland, M., Wood, L., & Wolf, T. J. (2022). Interventions to improve social participation, work, and leisure among adults poststroke: A systematic review. *American Journal of Occupational Therapy*, 76(5), 1-11.

## Dementia

Chen, P.-J., Hsu, H.-F., Chen, K.-M., & Belcastro, F. (2022). Effects of tabletop games on cognition in older adults: A systematic review and meta-analysis. *Games for Health Journal*, 11(4), 225-235.

Lee, K. H., Lee, J. Y., & Kim, B. (2022). Person-centered care in persons living with dementia: A systematic review and meta-analysis. *The Gerontologist*, 62(4), e253-e264. **OPEN ACCESS**

Shoesmith, E., Griffiths, A. W., Sass, C., & Charura, D. (2022). Effectiveness of counselling and psychotherapeutic interventions for people with dementia and their families: A systematic review. *Ageing & Society*, 42(4), 962-989. **OPEN ACCESS**



## 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'.

