

September 2026

NeuroBITE

NEWSLETTER

Welcome to the September 2026 edition of the NeuroBITE newsletter!

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Hello NeuroBITers!

Welcome to our September newsletter, our first in a few months during which time there have been some important developments at NeuroBITE.

Firstly, we welcome back Linda Sigmundsdottir as our acting manager, filling in for Janet Doubleday. Linda has been a part of Team NeuroBITE since the PsycBITE era and brings a wealth of knowledge in research evidence.

Secondly, this has been a busy period for Team NeuroBITE with several important publications from our group of three systematic reviews (all Open Access) in the field of TBI rehabilitation. These formed the evidence base for the first Australian Clinical Practice Guideline for the Management of Psychosocial Difficulties in Adults with Moderate-to-severe Traumatic Brain Injury that were published recently. These three systematic reviews lead our newsletter this month, along with fascinating studies of the therapeutic effects of music, virtual reality and mindfulness in neurorehabilitation, and covering conditions including stroke, long Covid, MCI and epilepsy.

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Over the past few months, we have also been involved in the promotion of evidence-based practice. Our Director, Paul Gertler, was invited to join the journal club of the Laura Fergusson Trust to talk about evaluating RCTs (see attached smiling zoom screenshot). Paul also ran a webinar for ASSBI on the applications of AI in searching for research evidence for interventions. Both of these events raised funds for NeuroBITE.



If you would like to have our input to help your team with understanding and evaluating research evidence, please reach out to Paul directly:
paul.gertler@sydney.edu.au

Best wishes, from the NeuroBITE team

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Moderate to Severe TBI

Psychological interventions for challenging behaviours following moderate-to-severe traumatic brain injury: A systematic review, meta-analysis and GRADE evaluation. Gertler, P., Emery, H., Doubleday, J., Tate, R. L., Filipčíková, M., Honan, C. A., Wong, D., Carrier, S., Ownsworth, T., Douglas, J., McDonald, S., Wearne, T. & Simpson, G.K. (2026). *Neuropsychological Rehabilitation*, 1-44

OPEN ACCESS

Treatments for social cognitive difficulties following moderate-to-severe traumatic brain injury: A systematic review and meta-analysis. Emery, H., McDonald, S., Wong, D., Carrier, S., Gertler, P., Simpson, G., Ownsworth, T., Douglas, J., Wearne, T., & Skromanis, S. (2026). *Neuropsychological Rehabilitation*, 36(5), 1030-1072

OPEN ACCESS

Psychosocial interventions for mental health difficulties following moderate-to-severe traumatic brain injury: A systematic review and meta-analysis. Carrier, S., Wong, D., Emery, H., Gertler, P., Simpson, G. K., Zuber, O., Ownsworth, T., McDonald, S., Douglas, J., & Wearne, T. (2026). *Neuropsychological Rehabilitation*, 1-50.

OPEN ACCESS

Acquired Brain Injury

Systematic review and meta-analysis reveal positive therapeutic effects of music in brain damage rehabilitation. Navarro, L., Mallah, N. E. Z., Pardo-Seco, J., Gomez-Carballa, A., Pischedda, S., Nowak, W., Segura, E., Rodriguez-Fornells, A., Martinon-Torres, F., & Salas, A. (2026). *Frontiers in Integrative Neuroscience Vol 20*

OPEN ACCESS



Goal management training and psychoeducation for executive function in adolescents with paediatric-acquired brain injuries: A 5-year follow-up.

Sargenius, H. L., Brandt, A. E., Chevignard, M., Hypher, R., Andersson, S., Finnanger, T. G., Ro, T. B., Risnes, K., & Stubberud, J. (2026). *Brain Injury*, 40(5), 311-320.

PEDro-P Score: 8/10

OPEN ACCESS

An exploration of the use of artificial intelligence to supplement activity performance in acquired brain injury: a single case experimental design.

McDonagh, B., O'Neill, B., & Hynes, S. (2026). *Disability and Rehabilitation: Assistive Technology*, 21(1), 241-256.

RoBiNT Score: 18/30

OPEN ACCESS

Stroke

A randomized controlled trial of online mindfulness-based stress reduction in chronic stroke.

Lwi, S. J., Chok, J., Schendel, K., Herron, T. J., Curran, B. C., & Baldo, J. V. (2026). *Rehabilitation Psychology*

PEDro-P Score: 8/10

OPEN ACCESS

Long COVID

Long COVID brain fog treatment: An early-phase randomized controlled trial of constraint-induced cognitive therapy signals go.

Uswatte, G., Taub, E., Ball, K., Mitchell, B. S., Blake, J. A., McKay, S., Biney, F., Iosipchuk, O., Hempfling, P., Harris, E., Dickerson, A., Lokken, K., Knight, A. J., Mark, V. W., Agnihotri, S., & Cutter, G. (2026) 1. *Rehabilitation Psychology*, 71(1), 46-61.

PEDro-P Score: 4/10

OPEN ACCESS



Epilepsy

A cognitive rehabilitation program to improve hot and cool executive dysfunction in juvenile myoclonic epilepsy: Preliminary findings. Paiva, M. L. M. N., Serafim, A., Vincentiis, S., Alessi, R., Marin, R., Melo, M. B., & Valente, K. D. (2023). 1. *Epilepsy & Behavior*, 144, 1-8.

OPEN ACCESS

Mild Cognitive Impairment

Virtual reality-based cognitive training in mild cognitive impairment: A systematic review. Scaramuzzi, G. F., Manippa, V., Pawlik, K. H., Gkanatsa, M., Cornacchia, E., Gasparre, D., Bonvino, A., Lancioni, G., & Taurisano, P. (2026). 1. *Frontiers in Aging Neuroscience* Vol 18, 18.

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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'.

