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Key findings

Neurologic music therapy (NMT) could enhance conventional cognitive rehabilitation (CCR) in patients affected by multiple sclerosis (MS).



Objective

To investigate the effects of NMT on mood, motivation, emotion status and cognitive function in patients with MS receiving CCR.



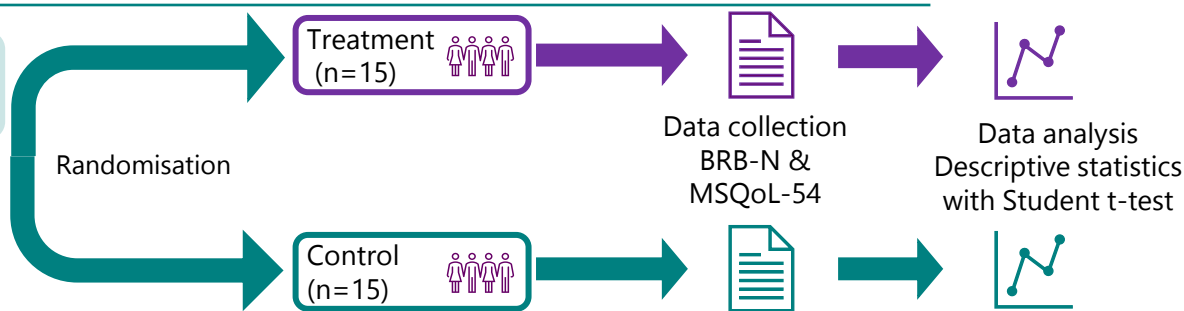
Comparators

Treatment: CCR three times a week for eight weeks and a specific NMT three times a week for eight weeks.

Control: CCR six times a week for eight weeks.



Single-blinded randomised controlled trial



NMT technique applied to a specific domain



Memory Ability: Patient listens to specific music and then asked questions relating to the music.



Social Skills: Leading and following the playing of a musical instrument.



Mood and Motivation: Guided music listening to assess patients' feelings towards music.



Emotional Awareness: Play-and-guess instrument to work out the emotion.

KEY RESULTS

- Improvement in various subscales of the **brief repeatable battery of neuropsychological test** (BRB-N) in the NMT combination than the CCR alone.
 - Selective reminding test long-term storage (**p < 0.000**).
 - Long-term retrieval (**p = 0.007**).
 - Delayed recall of the 10/34 spatial recall test (**p = 0.001**).
- Improvements in **multiple sclerosis quality of life-54** (MSQoL) in the NMT combination than the CCR alone.
 - Mental sub-test (**p < 0.000**).
 - Mood shown by Beck depression inventory test scores (**p < 0.000**).

The study suggests that the combination of NMT and CCR can **improve neurorehabilitation and social/psychological outcomes**.

This study had a **small sample size** and evidence using a larger sample size is needed. **Additional measures** such as functional magnetic resonance imaging or electroencephalography could be used. It would be useful to include a **group not receiving CCR for comparison**.

Despite the limitations, the **findings are promising** and could be a useful tool for patients with MS, and potentially other neurological disorders.

