

Brief Group Music Therapy (BGMT) for Acquired Brain Injury: Cognition and Emotional Needs

Dr Jonathan Pool

National Clinical guidelines for ABI rehabilitation (Turner-Stokes, 2003)

- Cognitive, emotional, and behavioural problems are prevalent following ABI, and often coexist and persist into the longer term
- Therapy addressing emotional adjustment should offer the opportunity to discuss the impact of ABI
- Social participation should be encouraged

Research Indicates:

- Holistic approaches to rehabilitation address ABI survivors' emotional needs while providing meaningful goals and facilitating adjustment to illness and disability. (Armstrong, 1991; Williams, Evans and Fleminger, 2003; Yates, 2003)
- Rhythm is important in neural stimulation of cognition (Fujioka, et al., 2009; Thaut, 2008)

Participants' greatest needs: *Indicated at referral interview:*

- Improving memory
- Improving concentration
- Feeling confident
- Feeling part of a group
- Feeling supportive of others
- Feeling valued
- Feeling productive/useful
- Having fun

Criteria for designing the intervention:

- Group** music therapy model to address social needs
- Time-limited** intervention
- Address **cognitive** needs
- Address **emotional** needs
- Graded** approach to functional retraining
- Functional exercises as **warm-ups** for more complex tasks
- Empowerment** through ownership and mutual support by group members

Clinical Method

- Welcome and Orientation
- Reminder of the session structure
- Attention and memory training
- Discussion with song writing
- Consolidation and goodbye

Results:

Sustained Attention Using TEA

Comparisons for combined groups	Statistical Sig.	Effect size
8 weeks of SC vs. BL	ns, $p > .05$	large, $r = .54$
8 weeks of MT vs. BL	$p < .05$	large, $r = .68$
16 weeks of MT vs. BL	$p < .05$	large, $r = .80$

Music therapy & Sense of Self

"I think the music therapy, by opening up my awareness of what it is I have lost, has allowed me somehow to regain a little bit of that."

Music therapy & Self-expression

"When we were given the opportunity to do music therapy it just gave us, in my view, the opportunity to open up and say things that I wasn't given the chances to say anywhere else. So, I think it was extremely valuable."

Music therapy & Cognition

"It's this ability to go from one thought to another and that's what I've lost with my brain injury...I think music therapy is definitely the way to go. I've enjoyed it extremely very much and it has given me the opportunity to feel these connections again."

Satisfaction of Emotional Needs Using VASEN

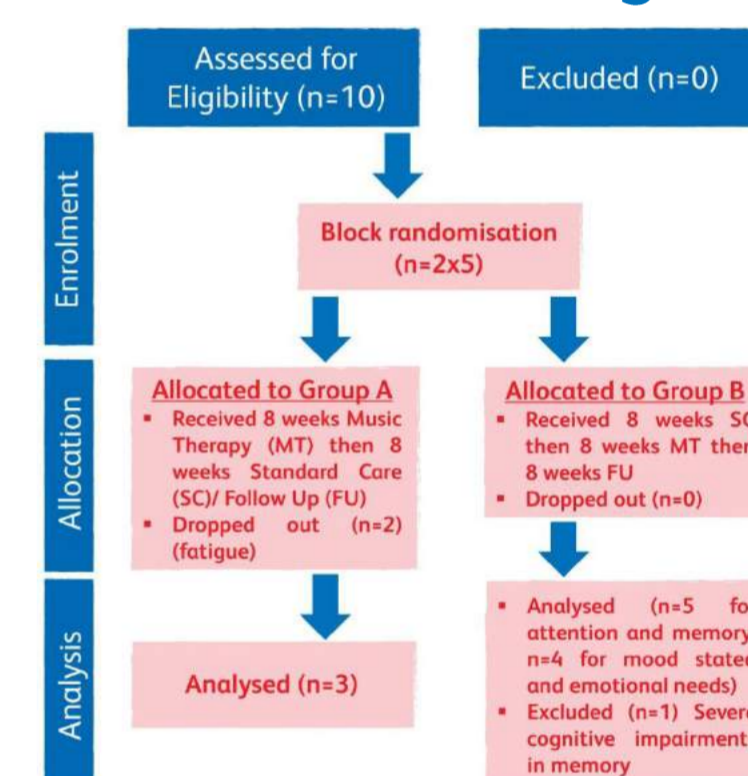
Domain	Statistical Sig. of immediate effect of treatment (p)	Effect size of immediate effect of treatment (d)	Statistical Sig. of short-term effect of treatment (p)	Effect size of short-term effect of treatment (r)
Part of a group	$p < .05$	med., $d = .74$	$p < .05$	large, $r = .80$
Confident	$p < .05$	large, $d = .88$	$p < .05$	large, $r = .80$
Productive	$p < .05$	large, $d = .90$	ns, $p > .05$	large, $r = .66$
Supportive	$p < .05$	med., $d = .75$	ns, $p > .05$	large, $r = .70$
Valued	$p < .05$	med., $d = .74$	$p < .05$	large, $r = .87$
Enjoyment	$p < .05$	small, $d = .34$	ns, $p > .05$	med., $r = .44$

"When playing music you can bang until your heart is contented."

Immediate Memory Recall Using RBMT

Comparisons for combined groups	Statistical Sig.	Effect size
8 weeks of SC vs. BL	ns, $p > .05$	large, $r = .55$
8 weeks of MT vs. BL	ns, $p > .05$	small, $r = .27$
16 weeks of MT vs. BL	ns, $p > .05$	med., $r = .46$

Research Design



- Closed Group
- 16 weekly one hour sessions
- Same room, day and time
- Quiet room with no distractions or interruptions
- Home programme with log book

Future Directions

- Run a BGMT group at The Children's Trust
- Conduct a study with the paediatric population perhaps involving other sites and collaborators
- Disseminate findings to inform clinical practice and future research

Conclusion – BGMT:

- Improves sustained attention ($p < .05$, $r = .80$) and immediate memory recall ($p > .05$, $r = .46$)
- The effect of treatment increased with dosage
- Addresses emotional needs of ABI survivors
- Overall, the intervention was more effective than standard care, and cognitive functional gains continued after treatment for some ABI survivors
- The intervention addressed emotional needs of feeling confident ($p < .05$, $d = .88$), feeling part of a group ($p < .05$, $d = .74$), feeling productive/useful ($p < .05$, $d = .90$), feeling supportive ($p < .05$, $d = .75$), feeling valued ($p < .05$, $d = .74$), and enjoyment ($p < .05$, $d = .34$)

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