Maintenance of mindfulness practice following a mindfulness-based intervention for stroke survivors: a critical realist secondary thematic analysis

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Background

Approximately one third of stroke survivors experience significant anxiety and depression post-stroke, with a higher prevalence long-term[1]. Mindfulness-based interventions (MBIs) appear feasible, acceptable and potentially effective in reducing anxiety and depression in stroke survivors[2,3,4] . MBIs encourage continuation of practice after the course to sustain benefits long-term[5]. However, practice may be difficult to sustain for stroke survivors, due to fatigue, sensory changes, and cognitive difficulties. Currently, there is limited research on experiences of post-MBI practice in stroke survivors.

Aim

The aim of this study was to explain what factors influence whether and how practice is maintained following an MBI for stroke survivors.

Methods

The study is a qualitative secondary analysis of data collected as part of the HEADS: UP stroke-specific MBI randomised control trial[6] (NCT04985838, completed in 2022). Focus group and interview data from 12 course participants were collected 6 months after the intervention. This data was analysed using a critical realist approach to thematic analysis[7]. In this, participant opinions and experiences are captured as 'experiential themes'. Linking descriptive themes to existing relevant concepts through abduction allows for theoretical redescription of experiences, forming 'inferential themes'. Using retroduction to consider what must exist for these themes to be true, 'dispositional themes' are generated, highlighting the possible causal mechanisms and influences on the experience.

Findings

Twelve participants took part in focus groups (n=10) or individual interviews (n=2). Seven participants were female (58.3%), and five male (41.7%), with a mean age of 58.8 years (SD 10.5) and 29.3 months post-stroke (SD 46.8). Seven participants reported continuing with practice in some form (58.3%); five did not.

Ninety-three experiential themes were linked to 54 inferential themes, which in turn resulted in eight dispositional themes. These include the key requirement for participants to attribute benefits to continued practice and to balance multiple priorities. Additionally highlighted were the tendency to seek out structure and connection to others, as well as the evolution of practice skill and understanding over time (see Figure 1).

"...it isn't just about meditation. Mindfulness is about a lot more than just that and what we have learnt in the course as well as our meditation, it continues to affect us and influence us positively." (T3_P2)

"I don't know why...also I sometimes think I'm not doing it right." (T2_P1)

"But I never...not once, not at all [practiced]. I might have thought about it but "swish" life. I just dot [sic] on with it." (T2_P3)

"So, I think being part of that group was really helpful from that point of view of being able to have [support]...and yeah, I kind of miss that meeting up." (T1_P2)

"I have been doing it every day and I feel loads stronger, I feel loads better..." (T1_P1)

"I've been kind of like lazy... When we were doing the practices as a group, we always got reminders and that kind of told us to do our practices and get ready for it, kind of thing." (T1_P3)

Figure 1. A selection of participant quotes (above) and the dispositional themes (below)

- Understanding evolves over time
- Togetherness and connection
- Influence of healthcare professionals
- Finding a structure for practice
- Meaningful benefits
- Influence of others and society
- Balancing practice with other priorities
- Relevance of practices

Conclusions

The study uncovered key factors that inform practice following an MBI. Addressing the above factors may help to support the transition between course-led and individual practice for those wishing to continue practice. Future work may seek to map the themes onto existing behaviour change techniques to identify practical ways to support post-MBI practice and, through that, sustain benefits long-term.

[1] Ayerbe, L., Ayis, S., Crichton, S., Wolfe, C.D. and Rudd, A.G., 2013. The natural history of depression up to 15 years after stroke: the South London Stroke Register. *Stroke*, *44*(4), pp.1105-1110.
[2] Lawrence, M., Booth, J., Mercer, S. and Crawford, E., 2013. A systematic review of the benefits of mindfulness-based interventions following transient ischemic attack and stroke. *International Journal of Stroke*, *8*(6), pp.465-474.
[3] Lawrence, M., Davis, B., De Amicis, L., Booth, J., Dickson, S., Dougall, N., Grealy, M., Jani, B., Maxwell, M., Parkinson, B. and Pieri, M., 2023, January. The HEADS: UP development study: working with key stakeholders to adapt a mindfulness-based stress reduction course for people with anxiety and depression after stroke. In *Healthcare* (Vol. 11, No. 3, p. 355). MDPI.
[4] Lawrence, M., Davis, B., Clark, N., Booth, J., Donald, G., Dougall, N., Grealy, M., Jani, B., MacDonald, J., Mason, H. and Maxwell, M., 2023 (Dec). In-person and online mixed method non-randomised studies exploring feasibility and acceptability of HEADS: UP, an adapted Mindfulness Based Stress Reduction programme for stroke survivors experiencing symptoms of anxiety and depression. [Preprint]. Available at: Research Square [https://doi.org/10.21203/rs.3.rs-3396574/v1] (Accessed: 5 July 2024).
[5] Beblo, T., Haehnel, K., Michalak, J., Iffland, B. and Driessen, M., 2024. Integrating mindfulness practice into everyday life after completing a course in mindfulness-based stress reduction. Nordic Psychology, pp.1-13.
[6] Lawrence, M., 2021, June - 2022, September. Helping Ease Anxiety and Depression Following Stroke Stage 3 (HEADS:UP). Identifier NCT04985838. https://clinicaltrials.gov/ct2/show/record/NCT04985838
[7] Wiltshire, G. and Ronkainen, N., 2021. A realist approach to thematic analysis: making sense of qualitative data through experiential, inferential and dispositional themes. Journal of Critical Realism, 20(2), pp.159-180.