

The impact of Mindfulness-Based Stress Reduction (MBSR) on depression, anxiety and stress in people with Parkinson's disease

Birtwell, K.*[^], Dubrow-Marshall, L.*^{*}, Raw, J.*^{**}, Duerden, T.*^{*}, Dunn, A.*^{***}

*University of Salford, [^]Manchester Mental Health & Social Care Trust, ^{**}Pennine Acute Hospitals NHS Trust, ^{***}Integrated Mindfulness

kelly.birtwell@nihr.ac.uk

Background

- Anxiety and depression affect 40-45% of people with Parkinson's disease. Existing research has identified that more effective diagnosis and treatment is needed.
- The 8 week MBSR course involves a variety of mindfulness practices including meditation, mindful movement and slow gentle stretching exercises based on yoga.
- Dreeben et al (2011) found a relationship between mindfulness and reduced anxiety and depression for patients with Parkinson's and their partners.
- Sephton et al (2011) reported MBSR may help to reduce disease-related distress of people with Parkinson's.
- Fitzpatrick et al (2010) found that mindfulness-based cognitive therapy (MBCT) is an acceptable group intervention and could be of benefit to people with Parkinson's.
- In a study looking at coping processes and quality of life of people with Parkinson's, Bucks et al (2011) recommended that mindfulness-based interventions could be beneficial.
- The aim of this study was to evaluate the impact of MBSR for people with PD.

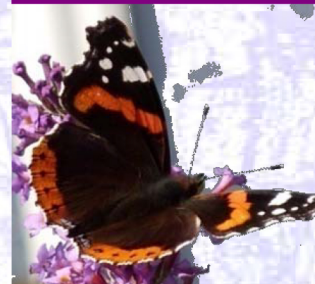
Findings

- 13 participants recruited, 6 completed the full MBSR course.
- Withdrawal reasons include: ill health and scheduling conflicts (e.g. work).
- Statistically significant improvements in self-reported depression, anxiety and stress at week 8 and week 16 (DASS-21).
- PDQ39 changes varied across dimensions: improvements from baseline to week 16 seen only in mobility, stigma and social support dimensions. Results not statistically significant.
- Levels of mindfulness (MAAS) showed little change across timepoints. Mean score at baseline = 3.83; week 16 = 3.90. MAAS score range: 1 – 6, higher scores = increased mindfulness. High scores at baseline could indicate a misunderstanding of some of the concepts of mindfulness, which is plausible when considered with results of the qualitative questionnaires.
- Qualitative follow-up questionnaires: 4 participants reported 'some positive change' since attending the MBSR course. Participants reported some confusion regarding mindfulness concepts, aims of the practices, and terminology used.
- When asked if there was anything they would like to tell other Parkinson's sufferers considering attending an MBSR course, all participants reported they would recommend the course.

Method

- Participants were recruited from a local hospital.
- Mixed methods design with questionnaires at baseline, week 8 (upon completion of the MBSR course) and week 16:
 - Depression Anxiety and Stress Scale, short version (DASS-21)
 - Parkinson's Disease Questionnaire 39 (PDQ39)
 - Mindful Attention Awareness Scale (MAAS)
 - Bespoke qualitative follow-up questionnaire (weeks 8 and 16)
- Minor adaptations made to MBSR to meet the specific needs of people with PD, e.g.:
 - body scan done while sitting, not lying on the floor;
 - some practices shortened to take account of fatigue and problems concentrating for long periods.
 - Some participants had difficulty identifying physical sensations in the body so external stimuli such as heat pads were used.

Participants would tell other people with Parkinson's:



"Go with an open mind, enjoy the course."

"To go ahead and try it."

"I would tell them not to be put off too soon, as its relevance takes some time to become obvious."

"Yes get involved because it's made me think about things and realise I'm not on my own."

"Do it."

"Prepare to be stimulated in an unusual way."

Conclusions & future research

- This study supports previous findings that mindfulness-based interventions could be of benefit to people with Parkinson's disease experiencing non-motor symptoms.
- In spite of a high drop-out rate this study indicates MBSR is acceptable to patients.
- Interpretation of the results is limited by the small sample size and lack of control group. Further research using larger sample sizes is required.
- Future research could also involve carers. Further adaptations could be made to tailor the intervention more specifically to people with Parkinson's.