Mindfulness Intervention for Multiple Sclerosis: MIMS trial

Dr Angeliki Bogosian
City University
angeliki.bogosian.1@city.ac.uk
What is mindfulness?
Definition

...paying attention in a particular way; on purpose, in the present moment, and non judgmentally

~Jon Kabat-Zinn
State of mind: always thinking

Pick dry cleaning
Call mum
Get bananas
Does bubbles still like me
MBCT/ MBSR

- 8-10 ppl per group
- 2.5h session
- 45min daily practice
- Deliver face to face
Mindfulness & chronic conditions

↓distress
↓pain, fatigue
↑QoL

Grossman et al., 2004; Merkes, 2010
What is multiple sclerosis (MS)?
Multiple Sclerosis (MS)

In multiple sclerosis, the myelin sheath, which is a single cell whose membrane wraps around the axon, is destroyed with inflammation and scarring.
Mindfulness & MS
Mindfulness & MS

Controlled study with people with MS & peripheral neuropathy (n=17) (Tavee et al., 2000):

- pain
- fatigue

Pilot RCT with people with SP MS (n=16) (Mills & Allen, 2000):

- symptom management
- balance
Mindfulness & MS

RCT (n= 150, 82% RR MS):

↑ MS QoL

↓ depression

↓ fatigue

(Grossman et al., 2010)
What is MIMS?

- Weekly sessions
- 20min daily practice
- 8 weeks
- Skype
Assessed for eligibility (n=93)

Excluded (n=53)

Randomised (n=40)

Allocated to mindfulness (n=19)
Lost post-course follow-up (n=2)

Analysed (n=19)

Allocated to waiting-list (n=21)
Lost post-course follow-up (n=2)
Lost 3-month follow-up (n=1)

Analysed (n=21)
# Participants

<table>
<thead>
<tr>
<th></th>
<th>MIMS (n=19)</th>
<th>Control (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (M, SD)</td>
<td>53.42 (8.3)</td>
<td>50.9 (9.9)</td>
</tr>
<tr>
<td>Women (N, %)</td>
<td>10 (52.6)</td>
<td>13 (61.9)</td>
</tr>
<tr>
<td>University (N, %)</td>
<td>8 (42.1)</td>
<td>11 (52.4)</td>
</tr>
<tr>
<td>White British (N, %)</td>
<td>17 (89.5)</td>
<td>19 (90.5)</td>
</tr>
<tr>
<td>Married (N, %)</td>
<td>15 (78.9)</td>
<td>16 (76.2)</td>
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</tbody>
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MIMS attendance

- N=18 (94.7%) attended ≥4 sessions
- N=14 (73.7%) attended ≥6 sessions
- N=7 (36.9%) attended ≥7 sessions
## Results

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Effects-post course</th>
<th>Effects- 3 months follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distress (GHQ)</td>
<td>-0.65*</td>
<td>-0.94**</td>
</tr>
<tr>
<td>Anxiety (HADS)</td>
<td>-0.40</td>
<td>-0.86*</td>
</tr>
<tr>
<td>Depression (HADS)</td>
<td>-0.65*</td>
<td>-0.53*</td>
</tr>
<tr>
<td>Psychological Impact of MS (MSIS)</td>
<td>-0.99***</td>
<td>-1.12***</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01, ***p<0.001
## Results

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<tr>
<td>Physical Impact of MS (MSIS)</td>
<td>-0.36*</td>
<td>-0.28*</td>
</tr>
<tr>
<td>Pain (VAS)</td>
<td>-0.27</td>
<td>-0.59*</td>
</tr>
<tr>
<td>Fatigue (FSS)</td>
<td>-0.30</td>
<td>-0.29</td>
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</tbody>
</table>

*p<0.05, **p<0.01, p<0.001
Results: cost-effectiveness

- total costs (health, social & informal care): ns, mean difference = -£2285, 95%CI -5003; 579
- The probability of cost effectiveness is above 90%
Feedback interviews

- 15 participants (8 women)
- Semi-structure telephone interviews
- Thematic analysis
Results: interviews

- Group value
- Self-compassion
- Acceptance
- Skype: acceptable
Discussion

- MIMS potentially effective in reducing distress in progressive MS
- MIMS potential cost-effective benefits
- Intervention acceptable and enjoyable for participants
The future

- large RCT
- active control groups
- include couples and families
Acknowledgements

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Ms Alicia Hughes: qualitative interviews
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Thank you for listening!