Group based psychological interventions for people with MS

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Psychological Distress

- Anxiety and depression common
- Dalton & Heinrichs 2005 Systematic Review
  - 20 studies  MS > healthy controls
  - 21 studies  MS > SCI
- Saa 2008 review
  - Lifetime prevalence  depression 50%
- Kororstil et al. 2007
  - Life time prevalence anxiety 35%
- Garfield & Lincoln 2012
  - Prevalence anxiety 57%
- Rates vary but high enough to warrant intervention
Psychological Distress

• Affects quality of life
• associated with breakdowns in interpersonal relationships and employment,
• decreased medication adherence
• heightened suicide risk
• may exacerbate MS
Treatment of Mood Disorders in MS

- Anti-depressants
- Provide emotional support to all to prevent mood problems developing
- Psychological treatment for those with low mood
Reviews

• Cochrane review (Thomas et al. 2006)
• CBT for depression in MS (Hind et al. 2014)
  – 3 individual, 3 group and 1 computerised
  – Summary effect (SMD -0.61, 95% CI -0.96 -0.26, p=0.0006)
• Mindfulness in MS (Simpson et al 2014)
  – 3 studies
  – No meta-analysis
• Group interventions in MS
  – Firth 2014
CBT for people with MS


• 94 people with MS
• CBT for adjustment vs supportive listening
• Nurse led therapy, specifically trained
• 8 sessions in 10 weeks
• CBT group sig. less distressed at end treatment (GHQ12 difference 3.2, 95% CI 1.1 to 5.4) and at 12-months (difference 2.2, 95% CI 0.01 to 4.4).
• CBT participants with clinically defined levels of distress at baseline showed significantly greater gains
Group Interventions

• Can offer to more people
• Practical in context NHS
• Decision
  – All with MS
  – Those with low mood
• Increasing evidence to support effectiveness
Support Groups

• Rigby et al. (2008) B J Clin Psychol. RCT
  – Designed to teaching coping strategies and enhance mood
  – 147 people with MS randomly allocated
    • brief group psychological intervention (3 x 90 mins) with 2-5 participants
    • Non-structured social discussion group (3 x 90 mins) with 2-6 participants
    • education booklet only
  – Psychotherapeutic and social groups significantly less anxiety than booklet group (p<0.006) but no significant differences in depression on HADS.
Support groups for those with low mood

  - RCT 40 people with MS with low mood
  - >7 on HADS-A or HADS-D or >2 on GHQ12
  - 6 x 2 hour session group vs waiting list
  - Treatment group significantly less depression on HADS-D than waiting list control group (p<0.05) but no significant differences in anxiety, self-efficacy or quality of life.
Follow-up RCT


• Recruitment in clinic and by post
• Screening for low mood
  – HADS-D or HADS-A >7 or GHQ-12 >2
  – Consenting patients completed baseline measures:
    – BDI-II, MS Self Efficacy Scale, MS Impact Scale,
      Guys Neurological Disability Scale, Euro-QoL and a
      service use questionnaire.
• Random allocation to adjustment groups or waiting list control in blocks of 8
• Outcomes 4 and 8 months after randomisation
# Treatment Groups

<table>
<thead>
<tr>
<th>Session</th>
<th>Topic</th>
<th>Exercises</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>• Introducing each other&lt;br&gt;• Difficulties list</td>
</tr>
<tr>
<td>2</td>
<td>Problem Solving and Realistic Target setting</td>
<td>• Problem sheet&lt;br&gt;• Rating solutions&lt;br&gt;• Useful and useless goals&lt;br&gt;• Scenarios&lt;br&gt;• Realistic goal setting</td>
</tr>
<tr>
<td>3</td>
<td>Worry</td>
<td>• Worry-less worksheet</td>
</tr>
<tr>
<td>4</td>
<td>Gloom</td>
<td>• Reducing gloom worksheet&lt;br&gt;• Anger diary</td>
</tr>
<tr>
<td>5</td>
<td>Relationships and others in our lives</td>
<td>• Scenarios&lt;br&gt;• Relationship questions sheet</td>
</tr>
<tr>
<td>6</td>
<td>The Future</td>
<td>• MS first aid kit</td>
</tr>
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</table>
Intervention groups

- Sharing problems
- Sharing ideas for coping with these
- Sharing information
- Establishing a support network
- Realistic adjustment to MS symptoms
- Enjoyment!
Progress through the study

Screening for low mood (n=311)

Excluded as did not have significant symptoms (n=90)

Eligible for study (n=221)

Excluded due to participation in pilot study (n=2)
too soon since diagnosis (n=6)
too far from groups site (n=2)
did not want to participate (n=60)

Recruited to study n=151

Intervention n=72

4 month Outcome n=61

8 month Outcome n=58

Control n=79

4 month Outcome n=70

8 month Outcome n=71
## Baseline Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th></th>
<th>Control</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Men</td>
<td>18</td>
<td>25</td>
<td>23</td>
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</tr>
<tr>
<td>With other</td>
<td>54</td>
<td>75</td>
<td>59</td>
<td>75</td>
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<tr>
<td>Live alone</td>
<td>10</td>
<td>14</td>
<td>11</td>
<td>14</td>
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<tr>
<td>Full time work</td>
<td>20</td>
<td>28</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Part-time work</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>Type of MS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relapsing Remitting</td>
<td>55</td>
<td>76</td>
<td>48</td>
<td>61</td>
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<tr>
<td>Primary Progressive</td>
<td>4</td>
<td>6</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Secondary Progr(^v)</td>
<td>12</td>
<td>17</td>
<td>18</td>
<td>23</td>
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<tr>
<td>Benign</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>44.5</td>
<td>11.1</td>
<td>47.5</td>
<td>10.5</td>
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Baseline Assessments

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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>22.4</td>
<td>6.7</td>
<td>20.8</td>
<td>6.8</td>
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<tr>
<td>HAD Anxiety</td>
<td>11.5</td>
<td>4.1</td>
<td>11.3</td>
<td>3.2</td>
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<tr>
<td>HAD Depression</td>
<td>9.5</td>
<td>4.0</td>
<td>9.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Guys NDS</td>
<td>17.3</td>
<td>7.8</td>
<td>16.7</td>
<td>6.9</td>
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</table>
Outcome analysis

• Intention to treat
• Sensitivity analysis - replaced missing values (LOCF)
• Hierarchical regression
  – Group allocation
  – Baseline value & GNDS
## Results 4 months

<table>
<thead>
<tr>
<th>Measure</th>
<th>Group allocation</th>
<th>Adjusted for baseline and disability</th>
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<tbody>
<tr>
<td>GHQ12</td>
<td>0.019</td>
<td>0.001</td>
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<tr>
<td>HADA</td>
<td>0.160</td>
<td>0.028</td>
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<tr>
<td>HADD</td>
<td>0.052</td>
<td>0.008</td>
</tr>
<tr>
<td>BDI</td>
<td>0.003</td>
<td>0.001</td>
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<tr>
<td>MSIS Phys</td>
<td>0.035</td>
<td>0.026</td>
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<td>MSIS Psy</td>
<td>0.237</td>
<td>0.077</td>
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<td>MSSE</td>
<td>0.064</td>
<td>0.025</td>
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<tr>
<td>EuroQoL</td>
<td>0.117</td>
<td>0.041</td>
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Results 8 months

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<tr>
<th></th>
<th>Group allocation</th>
<th>Adjusted for baseline and disability</th>
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<tbody>
<tr>
<td>GHQ12</td>
<td>0.088</td>
<td>0.016</td>
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<tr>
<td>HADA</td>
<td>0.002</td>
<td>0.001</td>
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<tr>
<td>HADD</td>
<td>0.026</td>
<td>0.003</td>
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<tr>
<td>BDI</td>
<td>0.013</td>
<td>0.001</td>
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<tr>
<td>MSIS Phys</td>
<td>0.006</td>
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<tr>
<td>MSIS Psy</td>
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<tr>
<td>MSSE</td>
<td>0.010</td>
<td>0.001</td>
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<tr>
<td>EuroQoL</td>
<td>0.423</td>
<td>0.127</td>
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Results summary

• Significant effect of group allocation

• Highly significant differences between groups when corrected for baseline value and disability

• Manual and video available from MS Society
## Attendance (Holmes et al. 2011)

<table>
<thead>
<tr>
<th>Number of sessions attended</th>
<th>Frequency of people attending</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
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<td>2</td>
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<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
</tr>
</tbody>
</table>

- 28% of participants attended all 6 sessions
- 52% of participants attended between 5 & 6 sessions
- 26% of participants who were invited to take part in the groups attended no sessions
Reasons for Non-attendance

- Being unable to contact
- Declined
- Unable to attend due to other commitments
- Childcare
- Work commitments
- Partner ill
- Forgetting
- Clashing with hospital appointments
- Relapse
Factors related to Non-attendance

- Participants who attended 4 or more sessions were not significantly different from those who attended fewer than 4 sessions on demographic variables, disability, self-efficacy or quality of life, but
- significantly fewer men attended 4 or more treatment sessions than women (p= 0.03).
Cost effectiveness
(Humphreys et al. 2012)

Costs of the intervention

- Clinical psychologist (Band 8a)
- Two assistant psychologists (Band 5)
- Room hire, tea & biscuits, materials
- Travel

for 54 x 3 hour sessions

- Total running costs £17,824.
- Average cost per person £248.
Combined Resource Use and Medication Costs

Intervention group,
- Baseline total combined costs £88,941
- 8 month follow up £55,102
- Overall reduction in cost £33,839
  - (mean per patient reduction of £470).

Control group,
- Baseline total combined costs £87,073
- 8 month follow-up £88,877
- Overall increase in combined costs of £1,804
  - (mean per patient increase of £23).
- Significant difference (p=0.03)
Individual vs Group Intervention?

Das Nair et al. In preparation

• People with MS with low mood
• Group vs individual
• Content based on adjustment group
• No sig. differences in outcome
• Attendance better for individual therapy
• Need a flexible procedure to combine advantages of better attendance for individual therapy with cost effectiveness of group therapy
Timing of Group Therapy

Barker et al.

- Interviews with participants from individual vs group therapy RCT
- Social identity changes over time
- Early not perceived as person with MS
- Later incorporate MS as part of social identity
- Effectiveness of group treatment may depend on this process
Conclusions

• Group treatments improve mood and reduce the impact of MS
• Group treatment for those with low mood saved the NHS £500 per patient
• Current evidence could support development of psychological services for people with MS
Questions

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Further details available from nadina.lincoln@nottingham.ac.uk