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mood
memos

Preventing depression with email-based promotion of self-help: An interim report of the Mood Memos RCT

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Sub-threshold depression

- Significant depression symptoms below the cut-off for diagnosis of major depression
- Impairs functioning
- Highly prevalent (12.9% vs 6.8% for major depression; Goldney et al., 2004)
- Increases risk of major depression (minor depression vs. no symptoms RR 4.5; Cuijpers et al., 2004)
- Large population burden

Self-help a potential solution

- Could effective self-help actions be promoted to the public? (Jorm & Griffiths, 2006)
- Reduce population burden of sub-threshold depression
- Potentially a cost-effective alternative to psychological treatment
- Self-help strategies are commonly used
 - Don't consume mental health resources
 - But many are ineffective

Effective & feasible self-help strategies

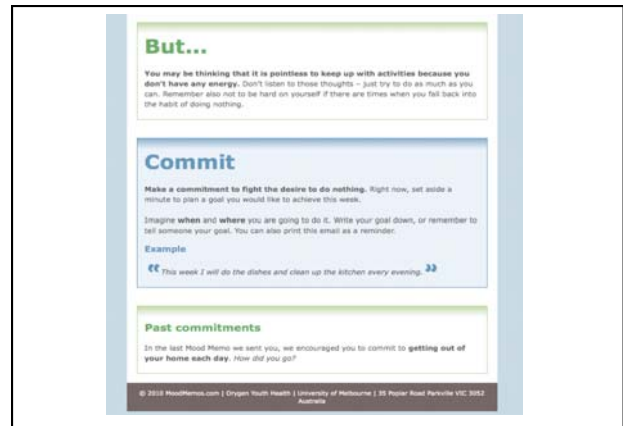
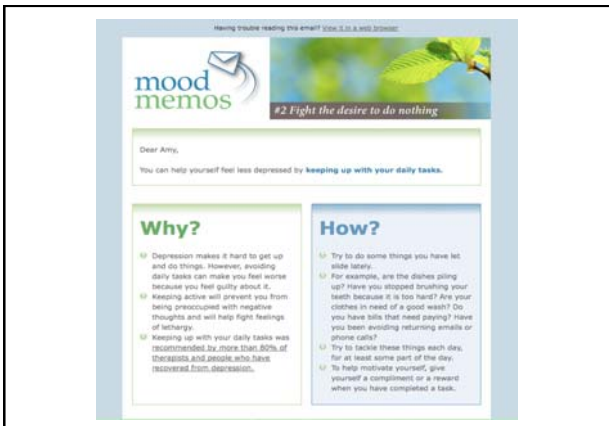
- 97 experts rated effectiveness of 282 self-help strategies (Morgan & Jorm, 2009)
- 14 self-help strategies identified by expert consensus
- Examples:
 - Engage in exercise or physical activity
 - Do something you enjoy
 - Reward yourself for reaching a small goal
 - Maintain a regular sleep schedule

Dissemination of self-help

- Email chosen as distribution medium
- Benefits:
 - Cost-effective, widely available
 - Potential for automation
 - Reach those who search web for info or support for depression
 - Health behaviour change possible through emailed health messages (Sternfeld et al., 2009)

Overview of Mood Memos

1. Get out of the house
2. Fight the desire to do nothing
3. Set yourself a small goal and reward yourself for reaching it
4. Eat well
5. Improve your sleep habits
6. Do something you enjoy and that gives you a sense of achievement
7. Talk to someone supportive about your problems and how you feel
8. Get active
9. Do what has worked for you in the past
10. Let others know how you are feeling
11. Ask someone you trust to help you get out and do things
12. Learn relaxation techniques



Control emails

- Emails with general info on depression, e.g.:
 - Symptoms
 - Prevalence
 - Risk factors
 - Co-morbidity
- Interesting but not therapeutic

Participants

- Admission criteria
 - sub-threshold symptoms of depression (2 to 4 DSM-IV symptoms, using PHQ-9)
 - aged 18 +
 - not receiving treatment for depression
 - resident in Australia, New Zealand, UK, Ireland, Canada or the USA
 - access to the Internet at least weekly
- Recruited via the internet
 - Google ads, websites, email newsletters, forums etc.

Procedure

- www.moodmemos.com
- Assessment, randomisation, email delivery all automated
- 6-week intervention
- Emails sent twice weekly
- Baseline, 3-week midpoint, 6-week post, & 6-month follow-up assessment
- Patient Health Questionnaire (PHQ-9) primary outcome

Screening results

- 64,000 screened
 - 62% depressed
 - 21% sub-threshold (13,725)
 - 17% not depressed
- 1,696/2,036 eligible (83%)
- 1,641 signed up
- 1,276 fully enrolled
- 636 to control, 640 to active

Baseline characteristics

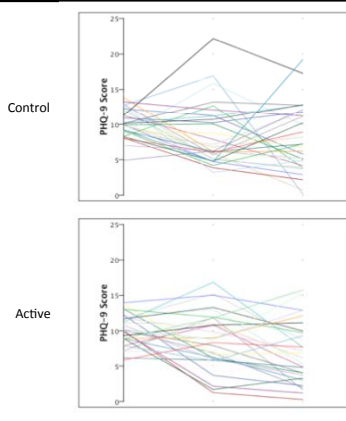


- N = 910
- 76% female, 24% male
- 59% Aus, 23% UK, 8% USA, 8% Canada, 2% NZ
- Age 18-73, *M* 35.2, *SD* 13.0
- 51% bachelor or postgraduate degree
- 51% history of depression
- PHQ-9 total score
 - *M* 10.5
 - *SD* 1.9

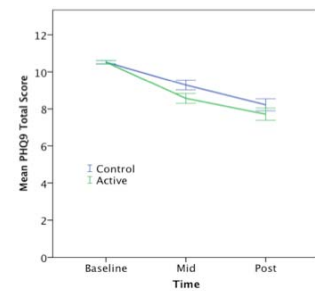
Assessment attrition



- 40% at mid assessment
- 51% at post assessment
- Predictors of completing assessments
 - Female
 - More education
 - Lower baseline depression score
- 18 participants (2%) elected to stop receiving emails



Non-significant change in depression scores



Mixed models repeated measures ANOVA:
 $F(2, 493.12) = 1.24, p = .29$
 Unstructured covariance matrix

Error Bars: +/- 1 SE

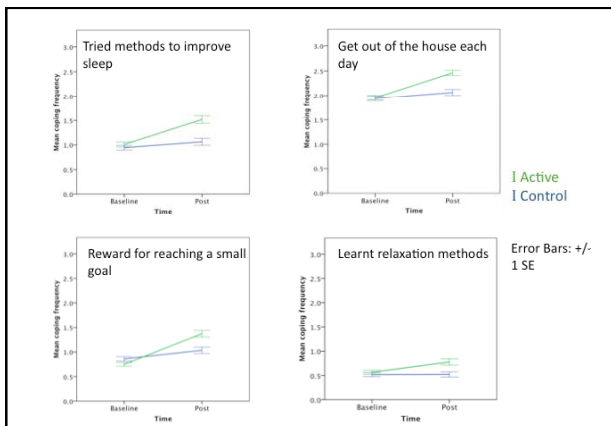
Non-significant depression prevention effect at 6-weeks

	Not depressed	Sub-threshold depression	Major depression
Control	52%	30%	17%
Active	58%	29%	13%

RR = 1.33 (95% CI 0.85 to 2.08)

Change in usage of effective self-help

- Usage increased for 4 out of 14 strategies
 - You made sure you got out of the house for at least a short time each day
 - You rewarded yourself for reaching a small goal
 - You learnt relaxation methods
 - You tried methods to improve your sleep



Conclusion



- Increase in usage of some effective self-help strategies
- But little effect on rates of depression or symptoms

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