

MINDFULNESS ONLINE: A PRELIMINARY EVALUATION OF THE IMPACT OF A WEB-BASED MINDFULNESS COURSE ON STRESS

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Perceived Stress



Prolonged stress can have a number of negative effects¹

Physical

- Weakened immune system
- More health complaints and impaired sleep
- High heart rate & blood pressure

Mental

- Anxiety disorders and obsessive compulsive disorder

¹e.g. Davey, Tallis & Capuzzo, 1996; Brosschot, Gerin & Thayer, 2006; Akerstedt, 2006; Segerstrom & Miller, 2004

Mindfulness

Mindfulness is the awareness that emerges through paying attention on purpose, in the present moment, with compassion, and open-hearted curiosity.

Through cultivating mindful awareness, we discover how to live in the present moment rather than brooding about the past or worrying about the future.

J.M.G Williams 2008

Perceived stress decreases after taking part in a Mindfulness intervention
& maintained at follow-up⁵.



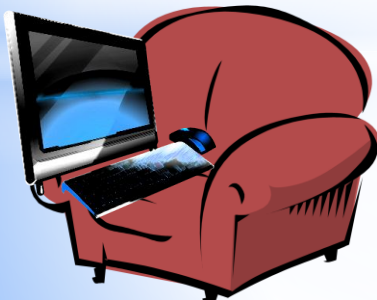
⁵Carmody et al., 2008; Carmody et al., 2009; Epel et al., 2009

Access to Mindfulness

The National Health Service in the UK cannot handle all of the need for mental health resources⁶.

The benefits of any online therapy:

- Reduction in cost to the participant
- Reduction in cost to the health service
- Choice of setting
- *Accessibility*



Online interventions reduce perceived stress⁷.

⁶Kuyken, 2011⁷ Zetterqvist et al 2003

Mindfulness Online

Bemindfulonline.com

The screenshot shows the homepage for the 'Mindfulness Online' course. The header includes navigation links: ABOUT MINDFULNESS, MBSR, MBCT, LEARN MINDFULNESS, and SUPPORT THE CAMPAIGN. The main content area is split into two columns. The left column features a large 'MINDFULNESS...' headline and a sub-headline: 'Don't let stress harm your mind. Take our online Mindfulness to discover a positive way of reducing stress.' The right column is titled 'MINDFULNESS - LEARN IT ONLINE' and lists course features such as 'An internet-based course you follow at a speed that suits you', 'Ten easy-to-follow online sessions', and 'Five guided mindfulness meditation audio downloads'. A 'TAKE THE COURSE' button is prominently displayed with pricing information: £60.00 (US \$95.00). A small video player is also visible.

Bemindfulonline

This screenshot displays a detailed course progress overview. A vertical sidebar on the left contains navigation tabs: TODAY, THIS WEEK, DIARY, LIBRARY, OVERVIEW, and SUPPORT. The main content area shows the current session, 'Reconnecting with Body & Breath', with a list of assignments for the week: 'Event Awareness', 'Mindful Movement', and 'Mindful Breathing'. Each assignment includes a brief description of the practice. A 'NEXT' button is visible at the bottom of the assignments list.

Method

- Participants are self-referrals
- Sample size 100
- PSS recorded at baseline, completion and at one month follow-up

- Practice self-reported each week

BODY SCAN - 30 minute audio track
During week 1, how often have you been practising the Body Scan?

- 1. Every day*
- 2. Most days*
- 3. Once or twice*
- 4. Never*

Preliminary Evaluation

Hypotheses for the study:

- 1) Significantly lower PSS
- 2) Maintained at one month follow-up
- 3) More practice = larger decrease
- 4) Comparable to other interventions

Sample Characteristics

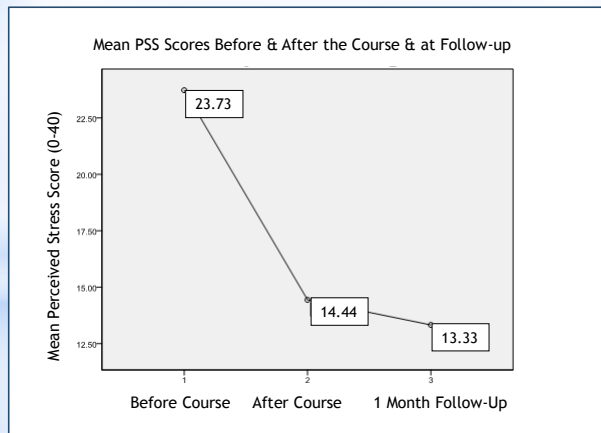
N = 100

Mean Age	48 SD 11.25 Range 28-72
% Female	74%
Mean length of course:	6.14 weeks

90% of participants answered all self-report practice log questions.

Mean baseline PSS for the sample was 23.73 (SD=9.95, range 10-38).

Perceived Stress Change



$P < 0.001$
Effect size (*d*) 1.57

Effect Sizes in the Literature

Paper	Authors	Sample	N	Pre Means	Post Means	Pre SD	Post SD	value	effect size (d)
Mindfulness Online: A Preliminary Evaluation of the Impact of a Web-based Mindfulness Course on Stress	University of Oxford, MHF, Wellmind Med	Non-clinical sample, 74% female	100	23.73	14.44	5.95	5.86	t14.69**	1.57
An Empirical Study of the Mechanisms of Mindfulness in a Mindfulness-Based Stress Reduction Program	Carmody et al.	Illness related stress, chronic pain, anxiety, personal & employment related stress	320/ 473	20.9	14.59	6.73	5.94	t17.73***	1.02
The Role of Mindfulness-Based Stress Reduction on Perceived Stress: Preliminary Evidence for the Moderating Role of Attachment Style	Cordon, Brown & Gibson	Does not state whether clinical sample. m age 48, gender 79% female, 96% white	131 / 185	19.94	14.63	7.15	5.76	f88.77**	0.81
Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program	Carmody & Baer	Illness related stress, chronic pain, anxiety, personal & employment related stress	174	22.13	15.78	6.19	6.33	t13.14**	1.02
Mindfulness-based stress reduction: What processes are at work?	Dobkin	Women treated for breast cancer, m age 54	13	20.62	14.46	5.28	5.92	t 3.17**	1.09
A Pilot Study Comparing the Effects of Mindfulness-Based and Cognitive-Behavioural Stress Reduction	Smith, et al.	Community volunteers, av. age approx. 43, majority female	50 (36)	19.7	14.8	0.69	0.64	f4.990**	0.73
The effects of a mindfulness-based stress reduction program on stress, mindfulness self-efficacy, and positive states of mind	Chang, et al.	Community volunteers, m age 47, 93% Caucasian, 57.1% women	43	21.4	18.25	6.4	5.72	f7.29*	0.52
Stress reduction correlates with structural changes in the amygdale	Holzel, et al.	Community sample, high levels of stress during previous months. 41% male, m. age 35.2	27	20.7	15.2	5.6	4.7	f3.7***	1.06
A pilot study of mindfulness-based stress reduction for hot flashes	Carmody, Crawford & Churchill	Women w/severe hot flashes	15	22	15.5	11.5	8.5	Not reported	0.64
Mindfulness-Based Stress Reduction for Health Care Professionals: Results from a Randomized Trial	Shapiro et al.	Health care professionals, aged 18+	38	26.7	21.1	8.4	6.9	N/A	0.73

Perceived Stress & Mindfulness Practice

BODY SCAN - 30 minute audio track
 During week 1, how often have you been practising the Body Scan?
 1. Every day
 2. Most days
 3. Once or twice
 4. Never

The sample was analysed in 3 groups:-

- High practice
- Medium Practice
- Low Practice

No significant difference.

But people reporting more practice had the highest PSS score at baseline.
 P<0.001

Key Messages

- ❑ Online mindfulness course can significantly decrease perceived stress
- ❑ Maintained at one month follow-up and comparable to other interventions
- ❑ Accessible and acceptable way for people to receive an intervention

The needs of the general public to find ways of reducing stress are enormous.

Research of accessible and cheap treatment interventions, *so long as the quality and integrity is assured*, can only be constructive to health services around the world- and to people who are unable to attend a class or therapy.



Depression & Anxiety

Online interventions promising for depression⁹

Online interventions promising for anxiety¹⁰

Mindfulness therapies shown to help with depression¹¹ and anxiety¹²



⁹ e.g. Hollandare et al., 2011; Bockting et al., 2011; Christensen, Griffiths & Jorm, 2003; ¹⁰ e.g. van Straten, Cuijpers & Smits, 2008; Kenardy, McCafferty & Rosa, 2003; ¹¹ Teasdale et al., 2000; Barnhofer et al., 2009; ¹² Hofmann et al., 2010

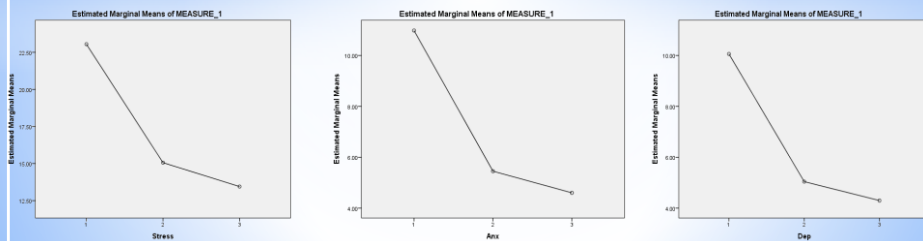
Follow-up Study Preliminary Results

Mindfulness Online: An Evaluation of the Impact of a Web-based Mindfulness Course on Stress, Anxiety & Depression (in prep)

273 participants completed the course including the one month follow-up.

Change in Perceived Stress, Anxiety (GAD-7) and Depression (PHQ-9) are analysed.

Preliminary results are promising. Stress, anxiety and depression significantly reduce upon course completion and at one month follow-up.



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Thank you



www.oxfordmindfulness.org



www.mentalhealth.org.uk



www.wellmindmedia.com