BEST in Mental Health
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Best Evidence Summaries of Topics in Mental Healthcare

BEST *in* MH *clinical question-answering service*

Question

How effective is mindfulness at treating/managing anxiety?

Clarification of question using *PICO* structure

Patients:	People with a diagnosed anxiety disorder
Intervention:	Mindfulness or Mindfulness-based Therapies
Comparator:	Any or no Intervention
Outcome:	All patient outcomes

Plain language summary

Good quality research evidence suggests that overall Mindfulness or Mindfulness based Therapies are effective in treating anxiety disorders in adults. However, more trials need to be conducted to test specific types of mindfulness based therapies for anxiety.

Clinical and research implications

There was a moderate amount of moderate quality evidence from two randomised controlled trials, and three systematic reviews to suggest that mindfulness-based therapies can be effective for reducing anxiety levels in adults with an anxiety disorder. Improvements in depression, life satisfaction and sleep were also observed.

Further trials are needed to compare internet-based mindfulness medication to other internet-based treatments, and to compare mindfulness and acceptance-based interventions to other current treatments for anxiety disorders.

What does the evidence say?

Number of included studies/reviews (number of participants)

Two randomised controlled trials (RCTs) with 91 and 93 participants, and three systematic reviews (39 studies (1140 participants), 12 studies (578 participants), and 19 studies (491 participants)) were included for this question. They evaluated a range of mindfulness-based therapies (MBT) including: mindfulness-based stress reduction, internet-based mindfulness therapy, mindfulness-based cognitive therapy, and acceptance therapies. Some of the studies did not have a control group, but in those that did the controls included: active controls (such as stress management education), an online discussion forum, waiting list, treatment as usual or placebo.

Main findings

Both RCTs found a significant reduction in anxiety with MBT in participants with anxiety disorders, in comparison to stress management education (Hoge) and in comparison to an online discussion forum (Boettcher), for anxiety measured using the Beck Anxiety Index after 8 weeks of therapy. However, one RCT also measured anxiety using the Hamilton Anxiety Scale which did not show any significant between group differences. Improvements in depression, life satisfaction and sleep were also observed.

The largest systematic review included seven studies in participants with anxiety disorders (other studies were in other conditions) and found that MBT significantly reduced symptoms of anxiety and depression (Hoffman). However, only three of these studies had a control group. Another review also combined RCTs and uncontrolled studies (Vøllestad), and for the six RCTs found a significant reduction in anxiety and depression symptoms. This also found that participants with primary anxiety disorders (generalised anxiety disorder and panic disorder) had a greater reduction in symptoms. The third review (Strauss) included eight RCTs in participants with anxiety disorders and found a moderate, but not statistically significant, improvement in primary symptom severity with MBT. There was no significant difference between the type of MBT (cognitive therapy or stress reduction) but the type of control group had a significant effect with inactive control group trials having a larger improvement in symptoms compared to active controls such as CBT.

Authors' conclusions

The two RCTs concluded that: "This study provides encouraging results for the effectiveness of an Internet-based mindfulness treatment program for the treatment of primary anxiety disorders.

Further replication of these results is needed to show whether web-based mindfulness medication is a valid alternative to existing, evidence-based Internet cognitive-behavioural treatments" (Boettcher) and "Mindfulness meditation training can reduce anxiety symptoms in patients with generalised anxiety disorder even when compared to an active control condition and is worth evaluating in larger trials" (Hoge).

The conclusions from the systematic reviews were:
"These finding support the use of MBT for anxiety and depression in clinical populations, and that it may not be diagnosis-specific but address processes that occur in multiple disorders" (Hoffman).

"MBI had significant benefits compared to control conditions for primary symptom severity in people with a current episode of depression, and that MBCT may have similar outcomes to group CBT and could be offered alongside other evidence-based interventions. There was no evidence to support MBI for people with an anxiety disorder" (Strauss).

"MABIs are associated with robust and substantial reductions in anxiety and comorbid depressive symptoms, further RCTs comparing MABIs to current treatments for anxiety disorders are needed)" (Vøllestad).

Reliability of conclusions/Strength of evidence
The two RCTs were both fairly small (around 90 participants), one was considered to be at high risk of bias as no details were given about the randomisation methods and it was not clear if the participants and outcome assessors were blinded to treatment (Hoge). The other trial was at moderate risk of bias as it had an appropriate randomisation method, but again the participants (who also reported their outcomes) were not blinded.

Two reviews (Hoffman and Vøllestad) were at moderate risk of bias as neither fully reported details of all the review methods, and combined RCTs and uncontrolled studies in the same analysis which was not appropriate. The third review (Strauss) was of better quality as it had a low risk of bias and was the only review to include only RCTs and address study quality in the analysis.

Overall there was a moderate amount of evidence from RCTs and systematic reviews, of moderate quality to suggest that mindfulness-based therapies can be effective for reducing anxiety in people with anxiety disorders. This conclusion is likely to be fairly reliable.

Date question received: 02/11/15
Date searches conducted: 10/11/15
Date answer completed: 18/11/15

References

Systematic reviews

1. Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of consulting and clinical psychology*, 78(2), 169.

2. Strauss, C., Cavanagh, K., Oliver, A., & Pettman, D. (2014). Mindfulness-based interventions for people diagnosed with a current episode of an anxiety or depressive disorder: a meta-analysis of randomised controlled trials. PloS one, 9(4), e96110.

3. Vøllestad, J., Nielsen, M. B., & Nielsen, G. H. (2012). Mindfulness-and acceptance-based interventions for anxiety disorders: A systematic review and meta-analysis. British Journal of Clinical Psychology, 51(3), 239-260.

Randomised controlled trials

4. Boettcher, J., Åström, V., Påhlsson, D., Schenström, O., Andersson, G., & Carlbring, P. (2014). Internet-based mindfulness treatment for anxiety disorders: a randomized controlled trial. *Behavior therapy*, 45(2), 241-253.

5. Hoge, E. A., Bui, E., Marques, L., Metcalf, C. A., Morris, L. K., Robinaugh, D. J., ... & Simon, N. M. (2013). Randomized controlled trial of mindfulness meditation for generalized anxiety disorder: effects on anxiety and stress reactivity. *The Journal of clinical psychiatry*, 74(8), 786

Results

Systematic reviews

Author (year)	Search date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Hoffman et. al 2010	April 2009	***Participants*:** Adults (18-65) who had generalised anxiety and social anxiety disorders (as well as other diagnosable psychiatric and medical conditions) ***Intervention*:** Mindfulness-based therapies (MBT) that were not coupled with Acceptance and Commitment Therapy or Dialectic Behaviour Therapy ***Comparator*:** 16 of the identified studies included a comparison group. The comparators used were: - Waiting list control - Treatment as usual (TAU) - Active treatment comparison ***Outcome*:** Anxiety disorders and depression in a clinical population. This was examined by comparing Hedges' g effect	39 studies. N=1140 received MBT	Five studies assessed MBT in people with generalised anxiety disorder, 4 in depression, 3 in panic disorder and 2 in social anxiety disorder, the other studies were in a variety of disorders including cancer, and chronic fatigue syndrome. MBT led to a statistically significant reduction in anxiety symptoms in people with anxiety disorders (Hedges' g = 0.97, 95% CI 0.72 to 1.22; 7 studies). It also significantly reduced symptoms of depression (Hedges' g = 0.75, 95% CI 0.58 to 0.92; 6 studies). However, only two of the five studies in generalised anxiety disorder had a control group (educational programs) and one of the two social anxiety studies.	Moderate The review inclusion/exclusion criteria were clearly stated. The search covered 3 databases and a manual search of references. Two authors extracted the outcome data and made the quality assessment, but it was not reported how many selected the studies. Quality was assessed using a basic tool for

		sizes for measures of anxiety symptoms across the following 4 diagnostic categories: - Anxiety disorders - Mood disorders - Cancer - Pain ***Study design*:** Studies with pre- and post-intervention data with sufficient data to calculate effect sizes.			RCTs but as most studies did not have a control group, this was not appropriate. The synthesis combined studies with a control group and single arm studies, which was not appropriate, and heterogeneity was not assessed.
Strauss et. al. 2014	July 2013	***Participants*:** Adults (≥ 18 years) who met the full diagnostic criteria for a current episode of anxiety or depressive disorder (DSM-IV). ***Intervention*:** Mindfulness based interventions (MBI) which included: - Mindfulness-Based Cognitive Therapy (MBCT=6) - Mindfulness-Based Stress Reduction (MBSR=5) and - Person-Based Cognitive Therapy (PBCT=1)	12 studies. (N=578)	Eight trials (n =418) were in people with an anxiety disorder (3 social anxiety disorder, 1 generalised anxiety disorder, 1 post-traumatic stress disorder, 1 health anxiety, 2 mixed anxiety), and four (n = 160) were in people with a major depressive disorder. Mean ages ranged from 21 to 52 years and the use of psychotropic medication ranged from 14% to 100%. The median drop-out rate across the studies was 15.5% (range 8% to 38%). For the 8 trials in anxiety disorder, there	Low The review inclusion/exclusion criteria were clearly stated. A range of databases and sources of unpublished material were searched. Details of how many reviewers performed

		***Comparator*:** Comparators included the following: - Cognitive Behavioural Therapy (CBT = 4) - Group Psychoeducation (1) - Treatment as usual (TAU = 5) - Waiting list control (1) - Aerobic Exercise (1) ***Outcome*:** A psychometrically reliable and valid measure of depression or anxiety. These were used to calculate Hedges' g effect-sizes for the difference between groups in post-intervention measures. ***Study design*:** Randomised controlled trials.		was a moderate but not statistically significant improvement in primary symptom severity (Hedges' g -0.55, 95% CI -1.18 to 0.09, p = 0.09). Over all trials MBI significantly improved primary symptom severity with a medium effect size (Hedges' g -0.59, 95% CI -1.06 to -0.12; p = 0.01). The individual trial results varied but there was no significant difference between primary diagnoses (anxiety or depression) or intervention type (MBCT or MBSR). The type of control group was significant (p = 0.001) with the inactive control studies having a larger improvement than the active control studies. The mean quality score was 2.83 out of 5 and there was no significant correlation between quality scores and effect sizes.	the study selection, data extraction and quality assessment were not reported so it was unclear if steps were taken to reduce errors. Quality was assessed using a tool for RCTs and linked to the results in a correlation analysis. The synthesis used a random effects model, and heterogeneity was assessed and explored.
Vøllestad et. al. 2012	July 2010	***Participants*:** Adult patients with a current diagnosis of an anxiety disorder (established using a structured clinical interview and DSM-IV or ICD-10 criteria). ***Intervention*:**	19 studies (N=491)	Mean participant ages ranged from 22 to 51 years (mean 38.5 years). The most common disorder was social anxiety disorder (7 studies), followed by generalised anxiety disorder (4 studies), mixed primary anxiety disorders (4	Moderate The review inclusion/exclusion criteria were clearly stated. The search

		Mindfulness and acceptance based interventions (MABI's) such as. - Mindfulness based cognitive therapy (MBCT, n = 8) - Mindfulness based stress reduction (MBSR, n = 4) - Acceptance commitment therapy (ACT, n = 2) - Acceptance based behavioural therapy (ABBT, n = 2) - Mindfulness- and Acceptance-based Group therapy (MAGT, n = 1) ***Comparator*:** - Active control group (n = 2) - Placebo control (n = 2) - Wait-list control (n = 2) ***Outcome*:** Reductions in symptoms of anxiety and (comorbid depressive symptoms) measured using: - Beck Anxiety Inventory (BAI) - Depression anxiety stress scales (DASS) - Hamilton rating scale for anxiety (HAMA-A) - Penn state worry questionnaire (PSWQ) - Symptom checklist 90 anxiety subscale (SCL-90-A) - Social Interaction anxiety scale (SIAS) - Social Phobia scale (SPS)		studies), anxiety and/or depression (3 studies) and panic disorder (1 study). MABI resulted in a significant decrease in anxiety symptoms from pre- to post-treatment with a large effect size (Hedges' g 1.08, 95% CI 0.81 to 1.34). A similarly sized significant decrease in depression symptoms was also seen (Hedges' g 0.85, 95% CI 0.66 to 1.03). For the 6 controlled studies, the results were still significant and similar for anxiety symptoms (Hedges' g 0.83, 95% CI 0.04 to 1.62) and for depression symptoms (Hedges' g 0.72, 95% CI 0.24 to 1.20). There was significant heterogeneity in some analyses and moderator analyses found that diagnosis was a significant factor, with primary anxiety disorders (panic disorder and generalised anxiety disorders) having greater decreases in anxiety symptoms. Five studies reported on quality of life, and found a moderately sized significant	covered 4 databases and a manual search of references. Two authors selected studies but it was unclear if this also applied to the data extraction. Study quality was not assessed. The synthesis combined studies with a control group and uncontrolled studies, which was not appropriate.

		- State trait anxiety inventory (STAI) Effect sizes were analysed using Hedges' g. ***Study design*:** Randomised controlled trials (n = 6) and uncontrolled clinical trials (n = 13).		improvement in quality of life following MABI treatment (Hedges' g 0.65, 95% CI 0.36 to 0.93).	

Randomised controlled trials

Author (year)	**Inclusion criteria**	**Number of participants**	**Summary of results**	**Risk of bias**
Boettcher et al 2014	***Participants*:** Adults (≥ 18 years) with a primary diagnosis of social anxiety disorder, panic disorder, generalised anxiety disorder or anxiety disorder not otherwise specified, no previous extensive experience of mindfulness, if on medication for anxiety on a constant dose for the previous 3 months. ***Intervention*:** Internet-Based Mindfulness: This included a 20 min video that explained the concept of mindfulness and its relevance for anxiety disorders. This was then followed by an 8 module programme of exercises carried out over an 8 week period (16 hours in total).	N=91	At baseline, 71.4% of the participants were female; 68.1% were married or in a relationship; 61.5% had previously received psychiatric treatment; 26.3% were receiving medication for anxiety/depression; and the primary diagnosis was panic disorder in 33%, social anxiety disorder in 28.6%, unspecified anxiety disorder in 19.8% and generalised anxiety disorder in 18.7%. Mindfulness participants completed an average of 44 out of 96 sessions corresponding to 7.3 hours of mindfulness practice during the 8 week intervention period. Mindfulness participants had a significantly greater decrease in anxiety at the end of the intervention compared to the control participants (Cohen's d effect	Moderate Randomisation used an independent online randomisation service so was low risk of bias. The participants were not blinded as the control group knew that they could eventually receive the mindfulness intervention. As

	***Comparator*:** Online discussion forum: Participants in the control group received access to a closed, anonymous, and supervised online discussion forum. Each week, a new topic related to anxiety or panic (but not therapeutic) was presented for discussion. The control group could receive the mindfulness intervention after the end of the 8 week study period. ***Outcome*:** Primary Outcome: Severity of somatic and cognitive anxiety symptoms measured by the Beck Anxiety Inventory (BAI) Secondary Outcomes: - Depression; Beck Depression Inventory (BDI-II) - Insomnia; Insomnia severity index (ISI) - Importance and satisfaction with life; Quality Of Life Inventory (QOLI) Outcomes were measured at baseline, 8 weeks and 6 months.		sizes (ES) of 1.33 for mindfulness and 0.76 for control, p = 0.002). Similar results were seen for other outcomes with the mindfulness participants having a significantly greater improvements in depression (ES 1.58 mindfulness and 0.49 control, p < 0.001); insomnia (ES 0.82 mindfulness and 0.45 control; p = 0.016); and life satisfaction (ES 0.64 mindfulness and 0.04 control, p = 0.09). Forty percent of the mindfulness participants had a clinically significant change (of ≥10 points on the BAI) in anxiety compared to 9% of the control participants (p = 0.02).	outcomes were self-reported this also means that they were not blinded. Seven participants did not compared the post-treatment outcomes but they were still included in the analysis as this was on an ITT basis. All outcomes were reported.
Hoge et. al 2013	***Participants*:** Adults (≥ 18 years) who met the DSM-IV criteria for current primary Generalised Anxiety Disorder (GAD) and scored ≥ 20 on the	N=93	The trial was conducted between 2009 and 2011. The mean participant age was 39 years; 51% were female; 19% were taking medication (stable SSRI or benzodiazepines); 12% had comorbid depression 8%	High No details were given about the

	Hamilton Anxiety scale. ***Intervention*:** Mindfulness-based Stress Reduction (MBSR) comprised of 8 weekly group classes with a single weekend "retreat" day, and daily home practice guided by audio recordings. ***Comparator*:** Stress Management Education (SME) designed as an active control which did not contain any mindfulness components. Given as two-hour classes weekly for 8 weeks with 4 hour weekend class. The total minutes of activities exactly matched the MBSR intervention. ***Outcome*:** Primary Outcome: Anxiety Symptoms measured by the Hamilton Anxiety Scale (HAM-A) and Beck Anxiety Inventory (BAI) Secondary outcomes: Clinical Global Impression of Severity (CGI-S) and Improvement (CGI-I); sleep using the Pittsburgh Sleep Quality Index (PSQI). All measured at baseline and 8 weeks.		had comorbid panic disorder and 28% had comorbid social anxiety disorder. There was no statistically significant difference (p =0.244) between the groups in anxiety (HAM-A) although both groups had a significant reduction in anxiety during the trial. However, for anxiety measured by the BAI the MBSR group had a significantly greater reduction than the SME group (p = 0.041). The MBSR group also had a significantly greater reduction in CGI-S score compared to the SME group (p = 0.037). Response was defined as a CGI-I score of "very much improved" or "much improved" and this was significantly greater (p =0.025) for the MBSR group (66%) than for the SME group (40%). Only those participants not taking psychiatric medication (n = 61) were included in the analysis of sleep, and the MBSR group had a significantly greater improvement in the PSQI compared to the SME group (p = 0.035).	randomisation methods so this was unclear. Even though the control group followed a similar set of classes, it was not clear if they knew that they were not attending mindfulness-based classes. Participants were instructed not to discuss their classes with the independent evaluators, but this is not a reliable method of ensuring blinded outcome assessment. Four participants were excluded

				from the analysis as they discontinued before starting treatment, this is low risk of bias as the discontinuation was not treatment-related. All outcomes were reported.

Risk of bias

Systematic reviews

Author (year)	RISK OF BIAS				
	Inclusion criteria	Searches	Review process	Quality assessment	Synthesis
Hofmann et al.2010	☺	☺	?	☹	☹
Strauss et al. 2014	☺	☺	?	☺	☺
Vøllestad et. al. 2012	☺	☺	?	☹	☹

Randomised controlled trials

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
Boettcher et al. 2014	☺	☺	☹	☹	☺	☺
Hoge et al. 2013	?	?	?	☹	☺	☺

☺ Low risk ☹ High risk ? Unclear risk

Search details

Source	Search Strategy			Number of hits	Relevant evidence identified
Guidelines					
NICE and SIGN	mindfulness and anxiety			12	0
Systematic Reviews					
MEDLINE	1	exp Obsessive-Compulsive Disorder/	12165	335	2
	2	exp Agoraphobia/ or exp Panic Disorder/ or exp Phobic Disorders/ or exp Anxiety Disorders/	74567		
	3	exp Stress Disorders, Traumatic/	26366		
	4	1 or 2 or 3	74567		
	5	exp Anxiety/	61879		
	6	(anxiety or anxieties or anxious or agoraphobi$ or phobi$ or panic disorder$ or panic attack$ or (obsess$ adj3 compuls$) or post?).ab,ti.	709058		
	7	(feel$ adj5 (apprehens$ or dread or disaster$ or fear$ or worry or worried or terror)).ab,ti.	1237		
	8	4 or 5 or 6 or 7	757539		
	9	exp Mind-Body Therapies/	43362		
	10	"body-mind*".ab,ti.	425		
	11	"mind-body*".ab,ti.	1952		
	12	(mind-body adj3 (program* or therap* or medicin*)).ab,ti.	550		
	13	9 or 10 or 11 or 12	44864		

	14	"mindfulness based stress reduction*".ab,ti.	444		
	15	"mindfulness based*".ab,ti.	1133		
	16	(mbsr* or mbct*).ab,ti.	548		
	17	"meditation*".ab,ti.	3162		
	18	(relaxation* adj2 (technique* or therap*)).ab,ti.	2093		
	19	exp Meditation/	1909		
	20	exp Relaxation Therapy/	7717		
	21	13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	47807		
	22	8 and 21	7201		
	23 - 42	***Systematic Review Filters applied***	919745		
	43	limit 42 to yr="2010 -Current"	438336		
	44	22 and 43	335		
EMBASE	1	exp Obsessive-Compulsive Disorder/	31000	379	
	2	exp Agoraphobia/ or exp Panic Disorder/ or exp Phobic Disorders/ or exp Anxiety Disorders/	168036		
	3	exp Stress Disorders, Traumatic/	40221		
	4	1 or 2 or 3	168036		
	5	exp Anxiety/	140271		
	6	(anxiety or anxieties or anxious or agoraphobi$ or phobi$ or panic disorder$ or panic attack$ or (obsess$ adj3 compuls$) or post?).ab,ti.	1035875		

	7	(feel$ adj5 (apprehens$ or dread or disaster$ or fear$ or worry or worried or terror)).ab,ti.	1830		
	8	4 or 5 or 6 or 7	1149365		
	9	exp Mind-Body Therapies/	38595		
	10	"body-mind*".ab,ti.	610		
	11	"mind-body*".ab,ti.	2529		
	12	(mind-body adj3 (program* or therap* or medicin*)).ab,ti.	746		
	13	9 or 10 or 11 or 12	40558		
	14	"mindfulness based stress reduction*".ab,ti.	672		
	15	"mindfulness based*".ab,ti.	1661		
	16	(mbsr* or mbct*).ab,ti.	878		
	17	"meditation*".ab,ti.	4345		
	18	(relaxation* adj2 (technique* or therap*)).ab,ti.	2884		
	19	exp Meditation/	4755		
	20	exp Relaxation Therapy/	9014		
	21	13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	54983		
	22	8 and 21	8106		
	23 - 52	***Systematic review filters applied***	164096		
	53	limit 52 to yr="2010 -Current"	233415		
	54	22 and 53	379		

PsycINFO/CINAHL	1 exp Obsessive-Compulsive Disorder/	10524	92	1
	2 exp Agoraphobia/ or exp Panic Disorder/ or exp Phobic Disorders/ or exp Anxiety Disorders/	62806		
	3 exp Stress Disorders, Traumatic/	0		
	4 1 or 2 or 3	62806		
	5 exp Anxiety/	43835		
	6 (anxiety or anxieties or anxious or agoraphobi$ or phobi$ or panic disorder$ or panic attack$ or (obsess$ adj3 compuls$) or post?).ab,ti.	239768		
	7 (feel$ adj5 (apprehens$ or dread or disaster$ or fear$ or worry or worried or terror)).ab,ti.	1539		
	8 4 or 5 or 6 or 7	260476		
	9 exp Mind-Body Therapies/	0		
	10 "body-mind*".ab,ti.	788		
	11 "mind-body*".ab,ti.	2809		
	12 (mind-body adj3 (program* or therap* or medicin*)).ab,ti.	365		
	13 9 or 10 or 11 or 12	3523		
	14 "mindfulness based stress reduction*".ab,ti.	540		
	15 "mindfulness based*".ab,ti.	1952		
	16 (mbsr* or mbct*).ab,ti.	824		
	17 "meditation*".ab,ti.	4701		
	18 (relaxation* adj2 (technique* or therap*)).ab,ti.	1291		
	19 exp Meditation/	2708		

	20 exp Relaxation Therapy/	1781		
	21 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	12234		
	22 8 and 21	2877		
	23 (Cochrane$ or review or overview or (review adj2 literature) or (synthes$ adj3 (literature$ or research or studies or data))).ti.	107551		
	24 (meta analysis or literature review or systematic review).md.	111733		
	25 (pooled analys$ or ((data adj2 pool$) and studies) or ((hand or manual$ or database$ or computer$ or electronic$) adj2 search$) or ((electronic$ or bibliographic$) adj2 (database$ or data base$))).ab,ti.	9145		
	26 exp Meta Analysis/	3482		
	27 23 or 24 or 25 or 26	192933		
	28 (comment reply or editorial or letter or review book or review media).dt.	226220		
	29 (electronic collection or dissertation abstract or encyclopedia).pt.	300154		
	30 (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ab,sh,ti.	204935		
	31 28 or 29 or 30	691782		
	32 27 not 31	120877		
	33 limit 32 to yr="2010 -Current"	49540		
	34 22 and 33	92		
Primary Studies				
MEDLINE	1 exp Obsessive-Compulsive Disorder/	12165	905	

	2	exp Agoraphobia/ or exp Panic Disorder/ or exp Phobic Disorders/ or exp Anxiety Disorders/	74567	
	3	exp Stress Disorders, Traumatic/	26366	
	4	1 or 2 or 3	74567	
	5	exp Anxiety/	61879	
	6	(anxiety or anxieties or anxious or agoraphobi$ or phobi$ or panic disorder$ or panic attack$ or (obsess$ adj3 compuls$) or post?).ab,ti.	709058	
	7	(feel$ adj5 (apprehens$ or dread or disaster$ or fear$ or worry or worried or terror)).ab,ti.	1237	
	8	4 or 5 or 6 or 7	757539	
	9	exp Mind-Body Therapies/	43362	
	10	"body-mind*".ab,ti.	425	
	11	"mind-body*".ab,ti.	1952	
	12	(mind-body adj3 (program* or therap* or medicin*)).ab,ti.	550	
	13	9 or 10 or 11 or 12	44864	
	14	"mindfulness based stress reduction*".ab,ti.	444	
	15	"mindfulness based*".ab,ti.	1133	
	16	(mbsr* or mbct*).ab,ti.	548	
	17	"meditation*".ab,ti.	3162	
	18	(relaxation* adj2 (technique* or therap*)).ab,ti.	2093	
	19	exp Meditation/	1909	
	20	exp Relaxation Therapy/	7717	

	21 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	47807		
	22 8 and 21	7201		
	23 "randomized controlled trial".pt.	415727		
	24 (random$ or placebo$ or single blind$ or double blind$ or triple blind$).ti,ab.	895791		
	25 (retraction of publication or retracted publication).pt.	8355		
	26 23 or 24 or 25	991594		
	27 (animals not humans).sh.	4045551		
	28 ((comment or editorial or meta-analysis or practice-guideline or review or letter or journal correspondence) not "randomized controlled trial").pt.	3599727		
	29 (random sampl$ or random digit$ or random effect$ or random survey or random regression).ti,ab. not "randomized controlled trial".pt.	56349		
	30 26 not (27 or 28 or 29)	737923		
	31 22 and 30	1892		
	32 limit 31 to yr="2010 -Current"	905		
EMBASE	1 exp Obsessive-Compulsive Disorder/	31000	1192	
	2 exp Agoraphobia/ or exp Panic Disorder/ or exp Phobic Disorders/ or exp Anxiety Disorders/	168036		
	3 exp Stress Disorders, Traumatic/	40221		
	4 1 or 2 or 3	168036		
	5 exp Anxiety/	140271		
	6 (anxiety or anxieties or anxious or agoraphobi$ or phobi$ or panic disorder$ or panic attack$ or (obsess$	1035875		

	adj3 compuls$) or post?).ab,ti.			
	7 (feel$ adj5 (apprehens$ or dread or disaster$ or fear$ or worry or worried or terror)).ab,ti.	1830		
	8 4 or 5 or 6 or 7	1149365		
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	16 (mbsr* or mbct*).ab,ti.	878		
	17 "meditation*".ab,ti.	4345		
	18 (relaxation* adj2 (technique* or therap*)).ab,ti.	2884		
	19 exp Meditation/	4755		
	20 exp Relaxation Therapy/	9014		
	21 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	54983		
	22 8 and 21	8106		
	23 (random$ or placebo$ or single blind$ or double blind$ or triple blind$).ti,ab.	1149409		
	24 RETRACTED ARTICLE/	7851		
	25 23 or 24	1157074		

	26 (animal$ not human$).sh,hw.	3967332		
	27 (book or conference paper or editorial or letter or review).pt. not exp randomized controlled trial/	4288620		
	28 (random sampl$ or random digit$ or random effect$ or random survey or random regression).ti,ab. not exp randomized controlled trial/	67909		
	29 25 not (26 or 27 or 28)	890050		
	30 22 and 29	1939		
	31 limit 30 to yr="2010 -Current"	1192		
PsycINFO/CINAHL	1 exp Obsessive-Compulsive Disorder/	10524	401	2
	2 exp Agoraphobia/ or exp Panic Disorder/ or exp Phobic Disorders/ or exp Anxiety Disorders/	62806		
	3 exp Stress Disorders, Traumatic/	0		
	4 1 or 2 or 3	62806		
	5 exp Anxiety/	43835		
	6 (anxiety or anxieties or anxious or agoraphobi$ or phobi$ or panic disorder$ or panic attack$ or (obsess$ adj3 compuls$) or post?).ab,ti.	239768		
	7 (feel$ adj5 (apprehens$ or dread or disaster$ or fear$ or worry or worried or terror)).ab,ti.	1539		
	8 4 or 5 or 6 or 7	260476		
	9 exp Mind-Body Therapies/	0		
	10 "body-mind*".ab,ti.	788		
	11 "mind-body*".ab,ti.	2809		
	12 (mind-body adj3 (program* or therap* or medicin*)).ab,ti.	365		

	13 9 or 10 or 11 or 12	3523		
	14 "mindfulness based stress reduction*".ab,ti.	540		
	15 "mindfulness based*".ab,ti.	1952		
	16 (mbsr* or mbct*).ab,ti.	824		
	17 "meditation*".ab,ti.	4701		
	18 (relaxation* adj2 (technique* or therap*)).ab,ti.	1291		
	19 exp Meditation/	2708		
	20 exp Relaxation Therapy/	1781		
	21 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	12234		
	22 8 and 21	2877		
	23 (random$ or placebo$ or single blind$ or double blind$ or triple blind$).ti,ab.	147538		
	24 (animals not humans).sh.	3310		
	25 exp Clinical Trials/	9124		
	26 random*.mp.	131571		
	27 25 not 26	3921		
	28 23 not (24 or 27)	146975		
	29 22 and 28	721		
	30 limit 29 to yr="2010 -Current"	401		

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