S1 Appendix: Additional details on methods and results

Table of Contents

Table A: Search string for EMBASE & MEDLINE via OVID	2
Table B: Assessments of high (red), unclear (orange), or low (green) risk of bias by all criteria	5
Table C: Outcome measures extracted by studies for each outcome category	
Table D: Coding results for use of theory (1), individual BCTs (2), and modes of delivery (3)	9
1. Use of theory	
2. Behavioral change techniques (BCTs)	11
3. Modes of delivery	13
Overview of meta-analyses; SMDs, 95% confidence intervals, heterogeneity statistics, forest plots and fun	nel plots),
and sensitivity analyses	
Comparison 1: Computer-based interventions versus passive controls (tables F-O, figs A-N)	14
Outcome 1.1: Symptom intensity (post)	14
Outcome 1.2: Health-related Quality Of Life (post)	17
Outcome 1.3: Functional interference (post)	20
Outcome 1.4: Catastrophizing (post)	23
Outcome 1.5: Depression (post)	26
Outcome 1.6: Symptom intensity (6 or more months at follow-up)	29
Outcome 1.7 HRQOL (6 or more months at follow-up)	30
Outcome 1.8 Functional interference (6 or more months at follow-up)	31
Outcome 1.9 Catastrophizing (6 or more months at follow-up)	32
Outcome 1.10: Depression (6 or more months at follow-up)	33
Comparison 2: Computer based versus active control (tables P-Y, and figs O-AB)	34
Outcome 2.1: Symptom intensity (post)	34
Outcome 2.2: Health-related Quality Of Life (post)	37
Outcome 2.3: Functional interference (post)	40
Outcome 2.4: Catastrophizing (post)	43
Outcome 2.5: Depression (post)	46
Outcome 2.6: Symptom intensity (6 or more months at follow-up)	49
Outcome 2.7: HRQOL (6 or more months at follow-up)	50
Outcome 2.8: Functional interference (6 or more months at follow-up)	51
Outcome 2.9: Catastrophizing (6 or more months at follow-up)	52
Outcome 2.10: Depression (6 or more months at follow-up)	
Table Z: Characteristics of sub-sets of studies with the 25% highest and 25% lowest SMD estimates	54
Table AA: Overview of sub-group analyses	56

Table A: Search string for EMBASE & MEDLINE via OVID

<patient condition>

- 1 Somatoform Disorder/
- 2 Psychosomatics/
- 3 Neurasthenia/
- 4 somati#ation.ti,ab.
- 5 somatoform.ti,ab.
- 6 neurasthen\$.ti,ab.
- 7 neurasthen\$.ti,ab.
- 8 psychophysiologic\$.ti,ab.
- 9 psychosomat\$.ti,ab.
- 10 psychogen\$.ti,ab.
- 11 (non organic\$ or nonorganic\$).ti,ab.
- 12 (unexplain\$ adj1 medical\$).ti,ab.
- 13 (unexplain\$ adj1 (sympt\$ or problem\$ or condition\$ or complain\$)).ti,ab.
- 14 ((non specific or nonspecific) adj2 (sympt\$ or problem\$ or condition\$ or complain\$)).ti,ab.
- 15 ((unexplain\$ or inexpl\$) and (health\$ or medical\$ or physical\$) and (sympt\$ or problem\$ or condition\$ or complain\$)).ti,ab.
- 16 (high utilis\$ or high utiliz\$).ti,ab.
- 17 (functional somatic adj2 (sympt\$ or syndr\$)).ti,ab.
- 18 Fibromyalgia/
- 19 fibromyalgi\$.ti,ab.
- 20 chronic widespread pain.ti,ab.
- 21 Fatigue Syndrome, Chronic/
- 22 fatigue syndrome.ti,ab.
- 23 ((non cardiac or noncardiac or non specific or nonspecific) adj2 chest pain).ti,ab.
- 24 NCCP.ti,ab.
- 25 Irritable Colon/
- 26 (IBS or irritable bowel syndrome\$).ti,ab.
- 27 multiple chemical sensitivity.mp.
- 28 idiopathic environmental intolerance.ti,ab.
- 29 Premenstrual Syndrome/
- 30 (premenstrual adj2 (syndrome\$ or tension\$)).ti,ab.
- 31 ((non ulcer nonulcer or functional) adj2 dyspepsia).ti,ab.
- 32 exp Cumulative Trauma Disorders/
- 33 cumulative trauma disorder\$.ti,ab.
- 34 repe\$ strain injur\$.ti,ab.
- 35 ((tension type or idiopathic or psychogenic) adj2 headache\$).ti,ab.
- 36 Temporomandibular Joint Disorders/
- 37 ((temporomandibular joint or TMJ) adj2 (disease\$ or disorder\$ or dysfunction\$)).ti,ab.
- 38 HYPOCHONDRIASIS/
- 39 NEUROCIRCULATORY ASTHENIA/
- 40 (somati#ing or somatie or somatic symptoms or somatic syndromes or symptom syndromes or multisomats or hypochondrias).ti,ab.
- 41 ((medic\$ adj3 (unexplain\$ or inexplic\$)) or unexplained symptom\$).ti,ab.
- 42 (((frequent or high) adj1 attend\$) or high utili#er\$ or repeat\$ present\$).ti,ab.
- 43 functional symptoms.ti,ab.
- 44 reattribution.ti,ab.
- 45 exp ABDOMINAL PAIN/
- 46 stomach ache\$.ti,ab.
- 47 exp BACK PAIN/
- 48 COLONIC DISEASES, FUNCTIONAL/
- 49 CYSTITIS, INTERSTITIAL/
- 50 painful bladder syndrome.ti,ab.
- 51 urethral syndrome.ti,ab.
- 52 cardiac neuros\$.ti,ab.
- 53 ((non cardiac or non-cardiac) adj chest pain).ti,ab.
- 54 ((nonorganic or non-organic) adj pain).ti,ab.
- 55 effort syndrome.ti,ab.

- 56 DIZZINESS/
- 57 myalgic encephalomyel\$.ti,ab.
- 58 ((post viral or postviral or post-viral) adj (fatigue or syndrome)).ti,ab.
- 59 exp HEADACHE/
- 60 exp HEADACHE DISORDERS/
- 61 exp HYPERVENTILATION/
- 62 exp HYSTERIA/
- 63 Briquet* syndrome.ti,ab.
- 64 IRRITABLE BOWEL SYNDROME/
- 65 MULTIPLE CHEMICAL SENSITIVITY/
- 66 exp PELVIC PAIN/
- 67 PSYCHOPHYSIOLOGIC DISORDERS/
- 68 (psychalgia or psychogenic or psychoseizure\$ or psychosomatic).ti,ab.
- 69 TEMPOROMANDIBULAR JOINT DYSFUNCTION SYNDROM/
- 70 or/1-69

<Intervention>

- 71 exp COMPUTER/ or exp MICROCOMPUTER/ or exp INTERNET/ or INTERNET-PROTOCOL/ or LOCAL-AREANETWORK/ or COMPUTER-NETWORK/ or MEDICAL-INFORMATICS/ or EDUCATIONAL-TECHNOLOGY/ or AUDIOVISUAL-EQUIPMENT/ or DECISION-MAKING/ or DECISION-SUPPORT-SYSTEM/ or DECISION-TREE/ or DECISIONTHEORY/ or COMPUTER-PROGRAM/ or exp TELECOMMUNICATION/ or exp MULTIMEDIA/ or COMPACT-DISK/ or COMPUTER-ASSISTED-THERAPY/ or COMPUTER-PROGRAM/ or HUMAN-COMPUTER-INTERACTION/ or COMPUTER-INTERFACE/ or COMPUTER-NETWORK/ or ONLINE-SYSTEM/ or ONLINE-SYSTEM/ or MEDICAL-INFORMATICS/ or MOBILE-PHONE/ or COMPUTER-GRAPHICS/ or VIRTUAL-REALITY/ (561689)
- 72 (COMPUTER* or INTERNET or CD-ROM or CDROM or (CELLULAR adj PHONE) or (CELLULAR adj TELEPHONE) or (MOBILE adj PHONE) or (MOBILE adj TELEPHONE) or ((ELECTRONIC adj MAIL) or EMAIL or E-MAIL) or HYPERMEDIA or (VIDEO adj GAME*) or (VIDEO adj RECORDING) or DVD or (WORLD adj WIDE adj WEB) or WORLD-WIDE-WEB or (WORLD-WIDE adj WEB) or (WORLDWIDE adj WEB) or (WEB adj SITE) or WEBSITE or (ONLINE or ON-LINE) or (CHAT adj ROOM) or CHATROOM or BLOG* or WEB-LOG* or WEBLOG* or (BULLETIN adj BOARD*) or BULLETINBOARD* or MESSAGEBOARD* or (MESSAGE adj BOARD*) or (INTERACTIVE adj HEALTH adj COMMUNICATION*) or (INTERACTIVE adj (TELEVIS* or VIDEO or TECHNOLOGY or MULTIMEDIA)) or E-HEALTH or EHEALTH or EHEALTH or (ELECTRONIC adj HEALTH) or (CONSUMER adj HEALTH adj INFORMATIC*) or (VIRTUAL adj REALITY) or (SURF* and (WEB* or INTERNET))).ti. (115754)
- exp Self Care/ or exp Patient Education/ or exp Patient Participation/ or exp Consumer/ or exp EMPOWERMENT/ or exp REHABILITATION/ or exp Daily Life Activity/ or exp Social Support/ or exp Coping Behavior/ or exp Behavior Therapy/ (((self or symptom*) adj (care or help or manag* or directed or monitor* or efficacy or admin*)) or ((health or patient*) adj2 (educat* or information)) or ((patient* or consumer*) adj part*) or (holistic or wholistic) or rehab* or (activit* adj2 daily adj living) or (social adj (support or network*)) or (support adj system*) or (psychologic* adj (adjust* or adapt*)) or (cope or copes or coping) or (adapt* adj behav*) or (behav* adj (thera*P* or intervention*))).ti.
- exp Abreaction/ or abreaction.mp. or exp Adaptation, Psychological/ or (Psychological adj Adaptation).mp. or exp aromatherapy/ or aromatherap/.mp. or exp art therapy/ or exp autosuggestion/ or (autogenic adj train*).mp. or exp autosuggestion/ or exp Aversive Therapy/ or exp behavior therapy/ or exp bibliotherapy/ or bibliotherap/.mp. or exp biofeedback, psychology/ or Biofeedback.mp. or exp catharsis/ or catharsis.mp. or exp conditioning/ or conditioning.mp. or exp conditioning, classical/ or (classical adj conditioning).mp. or exp conditioning, operant/ or (operant adj conditioning).mp.
- exp Cognitive Therapy/ or exp color therapy/ or exp Counseling/ or counsel?ing.mp. or exp Couples Therapy/ or exp crisis intervention/ or (crisis adj intervention).mp. or exp dance therapy/ or exp Desensitization, Psychologic/ or Desensiti?ation.mp. or exp Early Intervention/ or Early Intervention.mp. or exp Exercise Therapy/ or exp Eye Movement Desensitization Reprocessing/ or (Eye Movement adj2 (Desensiti?ation or Reprocessing)).mp. or exp Family Therapy/ or exp feedback, psychological/ or exp free association/ or (free adj association).mp. or exp gestalt therapy/ or exp hypnosis/ or hypnosis.mp. or exp imagery/ or imagery.mp. or exp implosive therapy/ or exp Intervention Studies/ or exp marital therapy/ or exp meditation/ or meditation.mp. or exp milieu therapy/ or exp music therapy/ or exp nondirective therapy/
- exp play therapy/ or exp psychoanalytic therapy/ or exp psychodrama/ or psychodrama.mp. or exp psychotherapeutic processes/ or (psychotheraP adj process*).mp. or exp psychotherapy/ or psychotheraP.mp. or exp psychotherapy, brief/ or exp Psychotherapy, Group/ or exp psychotherapy, multiple/ or exp psychotherapy, rational-emotive/ or exp reality therapy/ or exp residential treatment/ or (residential adj treatment?).mp. or exp socioenvironmental therapy/ or exp suggestion/ or exp systems theory/ or exp therapeutic community/ or exp transactional analysis/ or (transactional adj analysis).mp.
- 80 ((Acceptance commitment or Art or Assertive or autosuggestion or Aversive or Behav\$ or Client cent\$ or Cognitive or Colo?r or Compassion\$ or couples or dance or Directive or Exercise or Family or gestalt or Human Givens or Humanistic or

implosive or Interpersonal or marital or mentali?ation or milieu or music or nondirective or patient cent\$ or play or psychoanalytic or rational? emotive or reality or socio?environmental or suggestion or systemic or systems or therapeutic community) adj2 therap\$).mp.

- 81 (Behav\$ modification or Compassionate Mind Train\$ or Emotional freedom tapping or Flooding or Mindfulness or Psychodynamic or Rewind technique? or Stress manag\$).mp.
- 82 74 or 75 or 77 or 78 or 79 or 80 or 81

<Study type:>

- 83. COMPARATIVE-STUDY/
- 84. FOLLOW-UP/
- 85. PROSPECTIVE-STUDY/
- 86 (CONTROL\$ or PROSPECTIV\$ or VOLUNTEER\$).ti,ab.
- 87. factorial\$.ti.ab.
- 88. random\$.ti,ab.
- 89. (crossover\$ or cross over\$ or cross-over\$).ti,ab.
- 90. placebo\$.ti,ab.
- 91. (doubl\$ adj blind\$).ti,ab.
- 92. (singl\$ adj blind\$).ti,ab.
- 93. assign\$.ti,ab.
- 94. allocat\$.ti,ab.
- 95. volunteer\$.ti,ab.
- 96. crossover procedure.sh.
- 97. double blind procedure.sh.
- 98. randomized controlled trial.sh.
- 99. single blind procedure.sh.
- 100. (CONTROL\$ or PROSPECTIV\$ or VOLUNTEER\$).ti.
- 101. CONTROLLED-CLINICAL-TRIAL/
- 102. CLINICAL-TRIAL/
- 103. exp RANDOMIZATION/
- 104. (CLINIC\$ adj25 TRIAL\$).ti,ab.
- 105. (COMPARATIVE adj STUDY).ti.
- 106. exp evaluation/
- 107. ((time adj series) or (pre test or pretest or (post test or posttest))).tw.
- 108. exp animal/ or nonhuman/ or exp animal experiment/
- 109. exp human/
- 110. or/83-109
- 111. 108 and 109
- 112. 108 not 111
- 113. 110 not 112
- 114. 70 and 73 and 82 and 113

Table B: Assessments of high (red), unclear (orange), or low (green) risk of bias by all criteria

"High risk" or "low risk" were assigned if available information shows that a criterion of the risk of bias tool had or had not been met, and "unclear" was assigned if information was insufficient for objective assessment. The following agreements were made based on a (further) objectification of the 13 criteria:

- **Dissimilarity at baseline** was assessed by the results of statistical tests based on the following variables; primary outcome, severity/duration of somatic symptoms, age, gender, and employment/education.
- Low risk was scored if **attrition** rates were under 5% (post) or 10% (follow-up). Plausible standardized mean differences for missing outcome observations could not be established.
- For interpretation of the "acceptability" of **compliance**, it was agreed (a priori) to consider program duration, proportions of allocated participants that completed (at least 80%) the intervention for each group, and if compliance was monitored such that inadequate use could be observed. Objective assessment was complicated by differences in program duration and how usage/compliance was reported. After discussion, reasons for assigning high instead of low risk were: important differences in compliance between groups, a large number (more than half) of the intervention group participants stopped before completing (at least 80%) of a 3-12 week CBI. "Unclear" is assessed when compliance could not be judged by comparable standards (a CBI of longer duration was completed by less than half of the participants, if there was no monitoring, or usage was indicated in a completely different way).
- "Preregistered" as in the criterion for risk of reporting bias due to **selective outcome reporting** was interpreted as; registered before the end of data collections (note that some studies registered or updated a protocol between the start and end of data collection).
- Risk of bias due to **incomplete reporting and analysis** according to group allocation was assessed for:
 - o Primary analysis performed: "low risk" means intention-to-treat analysis were presented (or sensitivity analysis showed that primary complete case analyses results did not differ);
 - o data available for extraction (low risk is assigned if means and standard deviations are based on all participants that were allocated to the experimental groups (e.g. after adequate imputation of missing data)
- High risk due to different co-interventions between groups is assigned if intervention group participants were offered general information or training for using technology (not specific to the program under investigation). Other possible co-interventions, e.g. medication, were not considered.
- Other bias was coded high for studies with a small sample size (n<50).

https://back.cochrane							1							11			<u> </u>
First author, year of publication	Random sequence generation	Allocation concealment	Group similarity at baseline	Selection bias	Attrition bias	Reporting bias (selective outcome reporting)	Blinding of participants	Blinding of personnel/care providers	Similarity of co-interventions across groups	Compliance with interventions across groups	Performance bias	Bias due to incomplete analysis according to group allocation	Bias due to incomplete reporting according to group allocation	Blinding of outcome assessor	Timing of outcome assessment	Detection bias	Other bias (n<50)
Abbott, 2009																	
Andersson, 2002																	
Andersson, 2003																	
Boer, de, 2014																	
Brattberg, 2006			*1														

Buhrman, 2004									
Buhrman, 2011									
Buhrman, 2013									
Buhrman, 2013b									
Buhrman, 2015									
Camerini, 2012									
Carpenter, 2012									
Chiauzzi, 2010									
Davis, 2013									
Dear, 2013									
Dear, 2015									
Devenini, 2005									
Dowd, 2015									
Everitt, 2013									
Hesser, 2012		*2							
Hunt, 2009									
Hunt, 2015									
Janse, 2016									
Jasper, 2014									
Kaldo, 2008									
Krein, 2013									
Kristjánsdóttir, 2013									
Lee, 2014									
Ljotsson, 2010									
Ljotsson, 2011a									
Ljotsson, 2011b									
Lorig, 2008									
Menga, 2014									
Moessner, 2014									
Mourad, 2016									
Naylor, 2008									
Oerlemans, 2011									
Riva, 2014									
Ruehlman, 2012									
Schulz, 2007									
Strom, 2000									
Trompetter, 2015									
Vallejo, 2015		*3							
Weise, 2016									
Williams, 2010									
Wilson, 2015 *1,2,3 High/unclear risk only									

^{*1.2.3} High/unclear risk only for particular outcomes: 1; Health-related quality of life, Functional interference (FI), 2; FI, 3; FI, depression.

Table C: Outcome measures extracted by studies for each outcome category

	measures extracted				- ·
Study, year of publication	Symptom intensity	Health-related quality of life	Functional interference	Catastrophizing	Depression
Abbott 2009	VAS Loudness	WHOQOL	TRQ		DASS
Andersson 2002	VAS Loudness		TRQ		HADS
Andersson 2003	Headache intensity		HDI		HADS
	diary 4x 0-5				
Brattberg 2006	SF-36 bodily pain	SF-36 general	SF-36 Role-physical		HADS
D. 1	MDI	health	MDI 'at a Communication	CCC	HADC
Buhrman 2004	MPI pain severity	0011	MPI interference	CSQ cat.	HADS
Buhrman 2011	MPI pain severity	QOLI	MPI interference	CSQ cat.	HADS
Buhrman 2013	MPI pain severity	QOLI	MPI interference	CSQ cat.	HADS
Buhrman 2013a	MPI pain severity	QOLI	MPI interference	CSQ cat.	HADS
Buhrman 2015	MPI pain severity	QOLI	MPI interference	PCS	MADRS-S
Camerini 2012					
Carpenter 2012	VAS pain intensity		RMDQ	PCS rumination	
Chiauzzi 2010	BPI current		ODQ	PCS	DASS
de Boer 2014	VAS pain	RAND-36 General Health	VAS interference	PCS	
Dear 2013	WBPQ average pain		RMDQ	PRSS cat.	PHQ-9
Dear 2015	WBPQ average		RMDQ	CPAQ	PHQ-9
	pain		-	CFAQ	
Deveneni 2005	Headache Index		HDI		CES-D
Dowd 2015	BPI pain right now		BPI interference	PCS	HADS (total)
Everitt 2013	IBS SSS	IBS QOL			HADS
Hesser 2012		QOLI	THI	TAQ	HADS
Hunt 2009	GSRS	IBS QOL		ASI–GI	
Hunt 2015	GSRS	IBS QOL		VSI	
Janse 2016	CIS fatigue severity		SIP 8		SCL-90 (total)
Jasper 2014			THI	TAQ	HADS
Kaldo 2008	VAS loudness		THI	1710	HADS
Knoop 2008	CIS fatigue severity		SIP 8		TITADS
Krein 2013	VAS pain		RMDQ	TSK	
Kristjánsdóttir 2013	VAS Pain		FIQ	CPAQ	GHQ
Kristjansdottii 2013	VASTani		110	CIAQ	emotional distress
Lee 2014	Pain VAS	SF36 general health	SF36 role physical		
Ljotsson 2011	GSRS-IBS	IBS QOL	Sheehan Disability Scales	VSI	
Ljotsson 2011a	GSRS-IBS	IBS QOL	Zionai Zionointy Source	VSI	
Ljótsson 2010	GSRS-IBS	IBS QOL	Sheehan disability scales	VSI	MADRS-S
Lorig 2008	Pain NRS	Self-reported global health	Disability (National Health Survey)	ASES	
Menga 2014		giodai iicaitii	FIQ		
Moessner 2014	Pain NRS	SF-36	RMDQ		
Mourad 2016	CANTIIID 1	2120	MINIDA		DHO 0
	MDO main ::		TOPS Total Pain	CCO	PHQ-9
Naylor 2008	MPQ pain now		Experience	CSQ	
Oerlemans 2011	Abdominal pain (0-5)			PCS	
Riva 2014	CPGS				
Ruehlman 2012	PCP-S severity		PCP-S interference		
Schulz 2007					
Ström 2000	Headache diary		HDI		
-	peak intensity				

Trompetter 2015	Pain NRS	MPI interference	PCS	HADS
Vallejo 2015		FIQ	PCS	BDI
Weise 2016		THI	TAQ	HADS
Williams 2010	BPI	SF-36 physical functioning		CES-D
Wilson 2015	BPI pain intensity	BPI interference	PSEQ	PHQ8

VAS; Visual Analogue Scale, SF; Short-form Health Survey, MPI; Multidimensional Pain Inventory, BPI; Brief Pain Inventory, WBPQ; Wisconsin Brief Pain Questionnaire, IBS-SSS; Irritable Bowel Syndrome Symptom Severity Score, GSRS; Gastrointestinal Symptom Rating Scale, CIS; Checklist Individual Strength, MPQ; McGill Pain Questionnaire, CPGS: Chronic Pain Grading Scale, PCP-S; Profile of Chronic Pain – Screen, NRS; Numerical Rating Scale, WHOQOL; World Health Organization quality of life assessment, QOLI; Quality of Life Inventory, IBS QOL; Irritable Bowel Syndrome Quality of Life Instrument, TRQ; Tinnitus Reaction Questionnaire, HDI; Headache Disability Index, RMDQ; Roland-Morris Disability Questionnaire, THI; Tinnitus Handicap Inventory, SIP; Sickness Impact Profile, FIQ; Fibromyalgia Impact Questionnaire, TOPS; Treatment Outcomes of Pain Survey, CSQ cat.; Coping Strategies Questionnaire catastrophizing subscale, PCS; Pain Catastrophizing Scale, PRSS cat; Pain Related Control Scales catastrophizing subscale, TAQ; Tinnitus Acceptance Questionnaire, TSK; Tampa Scale of Kinesiophobia, ASI; Anxiety Sensitivity Index, VSI; Visceral Sensitivity Index, CPAQ; Chronic Pain Acceptance Questionnaire, ASES; Arthritis Self-Efficacy Scale, PSES; Pain Self-Efficacy Scale, DASS; Depression Anxiety Stress Scales, HADS; Hospital Anxiety and Depression Scale, MADRS-S; Montgomery–Åsberg Depression Rating Scale, PHQ; Patient Health Questionnaire, CES-D; Center for Epidemiological Studies Depression Scale, SCL; Symptoms Checklist, GHQ; GHQ; General Health Questionnaire, BDI; Beck Depression Inventory

 $Table \ D: \ Coding \ results \ for \ use \ of \ theory \ (1), individual \ BCTs \ (2), and \ modes \ of \ delivery \ (3)$

1. Use of theory

A First author name Abbott	A Year	1	2	3	_ 4	S	9	4	- 8	6 1	1	11	theory	Theory explicit link construct and intervention
Andersson	2002	1				1			1				1	1
Andersson	2003												0	0
Brattberg	2006												0	0
Buhrman	2004	1				1							1	0
Buhrman	2011	1											6	0
Buhrman	2015	1	1			1	1						6	0
Buhrman(a)	2013	1				1			1			1	3	1
Buhrman(b)	2013	1	1			1							6	0
Camerini	2012	1							1				4	1
Carpenter	2012	1				1							6	0
Chiauzzi	2010	1											1	0
Davis	2013	1											3	0
de Boer	2014	1	1			1				1			1	1
Dear	2015	1											2	0
Dear	2013	1											1	0
Devenini	2005												0	0
Dowd	2015	1											6	0
Everitt	2013	1											1	0
Hesser	2012	1											3	0
Hunt	2015	1	1			1			1				1	1
Hunt	2009	1	1			1			1				1	1
Janse	2016	1	1			1			1				1	1
Jasper	2014	1											1	0
Kaldo	2008	1								1			1	1
Krein	2013	1				1				1			5	1
Kristjánsdóttir	2013	1	1			1			1				3	1
Lee	2014												0	0
Ljotsson	2011	1	1			1			1				6	1
Ljotsson	2010	1	1			1			1				3	1
Ljotsson	2011	1	1			1			1				3	1
Lorig	2008	1	1										4	0
Menga	2014	1											2	0
Moessner	2014	1											0	0
Mourad	2016	1				1				1			1	0
Naylor	2008	1				1			1	1			2	1
Oerlemans	2011	1				1			1				1	1
Riva	2014	1				1							4	0
Ruehlman	2012	1				1							5	0
Schulz	2007												0	0
Strom	2000												0	0

Trompetter	2015	1		1	1	1		1	3	1
Vallejo	2015	1							2	0
Weise	2016	1					1		1	1
Williams	2010	1			1	1			1	1
Wilson	2015	1			1				5	0

Column explanations:

- 1. Theory/model of behavior mentioned
- 2. Targeted construct mentioned as predictor of behavior
- 3. Intervention based on single theory
- 4. Use of theory predictors to select recipients for the intervention
- 5. Use of theory predictors to select/develop intervention techniques.
- 6. Use of theory predictors to tailor intervention techniques to recipients.
- 7. All intervention techniques are linked to theory
- 8. At least one of the intervention techniques is linked to theory
- 9. Group of techniques are linked to a group of constructs/predictors
- 10. All theory-relevant constructs are linked to intervention techniques
- 11. At least one of the theory-relevant constructs is linked to an intervention technique
- Categories of "theory": 0 = none, 1 = simply CBT, 2 = CBT combination with other, 3 = third wave, 4 = other, 5 = author constructed, 6 = third wave inspired CBI combination.
- Explicit links between constructs and intervention = item 7 OR 8 OR 9

2. Behavioral change techniques (BCTs)

Full detail on the Behavioral Change Technique Taxonomy version 1 (BCTTv1) is available to users via: http://www.bct-taxonomy.com/. Considerations during application of the BCTTv1:

- BCTs specified in earlier protocols or study reports from the first author are assumed to be present (unless the later study conveys that it is not).
- The provision of information about antecedents (4.2) and information about health consequences (5.1) were automatically coded if participants received an explanation of the treatment rationale within a CBT.
- Interventions based on Acceptance and Commitment Therapy (ACT) included "cognitive defusion" and "values". If these were mentioned, the BCTs "framing/reframing" (13.2) and "valued self-identity" (13.4) were coded (subsequently).

Abbott09	4.51
Andersson02 p 1 <th< th=""><th></th></th<>	
Andersson03 a 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
de Boer14 a 0	
Brattberg06 p Image: control of the property of the p	
Buhrman04 p	
Buhrman04 p 1	
Buhrman13a p 1	
Buhrman13b p 1	\pm
Buhrman15 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Comprini 2 0 0 1 1 1 1 1 1	
Carpenter12 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Chiauzzi10 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Davis13 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Dear13 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Dear15 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Dear15 a 0 0 1 1 0 0 0 0 0 0 0 1 0 1 0 0	
Devenini05 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Dowd15 p 1 1 1 1 1 1 1 1	
Everitt13 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Everitt13 a 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0 0 0	
Hesser12 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Hesser12 a 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Hunt15 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Hunt09 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Jansel6 p 1 </td <td></td>	
Jasper14 p 1<	
Jasper14 a -1 0 0 1 0 1 0 1 0	
Kaldo08 a 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1
Krein13 p 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Kristjánsdótti a 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Lee14 p 1 1 1 1 1	\top

Ljotsson10	р	1									1	1	1		1		1		1	1	1				1	1				1		
Ljotsson11a	a												1						1		1									1		
Ljotsson11b	p	1					1	1			1	1	1		1		1		1	1	1				1	1				1		
Lorig08	p	1	1	1				1			1	1					1			1						1		1	1			1
Menga14	p	1										1	1		1		1			1									1	1		
Moessner14	a	1						1													1				1							
Mourad16	p		1					1	1	1	1	1	1	1	1		1		1	1				1	1	1			1			
Naylor08	a							1														1			1							
Oerlemans11	p	1		1			1	1	1				1		1	1						1	1		1	1				1		
Riva14	a										1	1					1	1														
Ruehlman12	p						1	1	1	1		1	1		1		1			1		1		1		1			1	1		
Schulz07	p										1	1					1	1							1							
Strom00	p	1										1		1			1			1						1			1			
Trompetter15	p										1	1	1		1		1	1		1		1				1				1	1	
Trompetter15	a										0	1	1		0		1	1		1		1				1				1	1	
Vallejo15	p										1	1	1		1		1			1		1			1	1			1	1		
Vallejo15	a										0	0	0		0		0			0		0			0	0			0	0		
Weise16	p	1	1			1	1				1	1	1		1		1		1	1					1	1	1	1	1	1		
Williams10	p	1	1					1			1	1	1		1		1			1				1	1	1			1	1		
Wilson15	p						1	1	1	1		1	1		1		1			1		1		1		1			1	1		

Cell explanations: 1 = BCT is present in experimental versus control group, 0 = BCT is present in experimental and control group, -1 = BCT is present in control group and not in experimental group. Column explanations:

- Comparison A = active, p = passive
- Remaining columns are the techniques of the total 93 that were coded. They are categorized 1-16:
 - o 1. Goals and planning: 1.1 Goal setting (behavior), 1.2 Problem solving, 1.3 Goal setting (outcome), 1.4 Action planning, 1.5 Review behavior goal(s), 1.6 Discrepancy between current behavior and goal, 1.7 Review outcome goal(s), 1.8 Behavioral contract, 1.9 Commitment
 - o 2. Feedback and monitoring: 2.1 Monitoring of behavior by other without feedback, 2.2 Feedback on behavior, 2.3 Self-monitoring of behavior, 2.4 Self-monitoring of outcome(s) of behavior, 2.5 Monitoring of outcome(s) of behavior without, 2.6 Biofeedback, 2.7 Feedback on outcome(s) of behavior
 - o 3. Social support: 3.1 Social support (unspecified), 3.2 Social support (practical), 3.3 Social support (emotional)
 - o 4. Shaping knowledge: 4.1 Instruction on how to perform the behavior, 4.2 Information about antecedents, 4.3 Re-attribution, 4.4 Behavioral experiments
 - o 5. Natural consequences: 5.1 Information about health consequences, 5.2 Salience of consequences, 5.3 Information about social and environment consequences, 5.4 Monitoring of emotional consequences, 5.5 Anticipated regret, 5.6 Information about emotional consequences
 - o 6. Comparison of behavior: 6.1 Demonstration of the behavior, 6.2 Social comparison, 6.3 Information about others" approval
 - o 7. Associations: 7.1 Prompts/cues, 7.2 Cue signaling reward, 7.3 Reduce prompts/cues, 7.4 Remove access to the reward, 7.5 Remove aversive stimulus, 7.6 Satiation, 7.7 Exposure, 7.8 Associative learning
 - 8. Repetition and substitution: 8.1 Behavioral practice/rehearsal, 8.2 Behavior substitution, 8.3 Habit formation, 8.4 Habit reversal, 8.5 Overcorrection, 8.6 Generalization of target behavior, 8.7 Graded tasks
 - o 9. Comparison of outcomes: 9.1 Credible source, 9.2 Pros and cons, 9.3 Comparative imagining of future outcomes
 - o 10. Reward and threat: 10.1 Material incentive (behavior), 10.2 Material reward (behavior), 10.3 Non-specific reward, 10.4 Social reward, 10.5 Social incentive, 10.6 Non-specific incentive, 10.7 Self-incentive, 10.8 Incentive (outcome), 10.9 Self-reward, 10.10 Reward (outcome), 10.11 Future punishment
 - o 11. Regulation: 11.1 Pharmacological support, 11.2 Reduce negative emotions, 11.3 Conserving mental resources, 11.4 Paradoxical instructions
 - o 12. Antecedents: 12.1 Restructuring the physical environment, 12.2 Restructuring the social environment, 12.3 Avoidance/reducing exposure to cues for the behavior, 12.4 Distraction, 12.5 Adding object to the environment, 12.6 Body changes
 - o 13. Identity: 13.1 Identification of self as role model, 13.2 Framing/reframing, 13.3 Incompatible beliefs, 13.4 Valued self-identity, 13.5 Identity associated with changed behavior
 - 14. Scheduled consequences: 14.1 Behavior cost, 14.2 Punishment, 14.3 Remove reward, 14.4 Reward approximation, 14.5 Rewarding completion, 14.6 Situation-specific reward, 14.7 Reward incompatible behavior, 14.8 Reward alternative behavior, 14.9 Reduce reward frequency, 14.10 Remove punishment
 - o 15. Self-belief: 15.1 Verbal persuasion about capability, 15.2 Mental rehearsal of successful performance, 15.3 Focus on past success, 15.4 Self-talk
 - o 16. Covert learning: 16.1 Imaginary punishment, 16.2 Imaginary reward, 16.3 Vicarious consequences

3. Modes of delivery

First author	Year of publication	Comparison	1	2	3	4	5	6	7	8	9	1	11
Abbott	2009	Passive	1		1		1		1			1	
Andersson	2002	Passive	1				1		1			1	
Brattberg	2006	Passive		1		1		1	1				1
Buhrman	2004	Passive	1	1	1		1		1		1	1	1
Buhrman	2011	Passive	1		1		1		1			1	
Buhrman	2015	Passive	1		1		1		1		1	1	
Buhrman(a)	2013	Passive	1	1	1		1		1		1	1	
Buhrman(b)	2013	Passive	1		_		1		1			1	
Carpenter	2012	Passive	1	1	1		Ė		1			1	
Chiauzzi	2010	Passive	1	1	1				1			1	
Davis	2013	Passive	1	1	1				1			1	
Dear	2015	Passive	1	-	1		1		1		1	1	
Dear	2013	Passive	1		1		1		1		1	1	
Devenini	2005	Passive	1	1	1		1		1		1	1	
Dowd	2005	Passive	1	1	1				1			1	
			1		1		1		-				-
Everitt	2013	Passive	1	1	1		1		1		1	1	
Hesser	2012	Passive	1	1	1	-	1		1	-	1	1	
Hunt	2015	Passive	1	-	1		1		1	-		1	
Hunt	2009	Passive	1		1		1		1			1	
Janse	2016	Passive	1				1					1	
Jasper	2014	Passive					1		1			1	
Krein	2013	Passive	1	1	1			1	1			1	
Lee	2014	Passive	1		1				1	1			
Ljotsson	2011	Passive	1		1		1	1	1			1	
Ljotsson	2010	Passive	1		1		1	1	1			1	
Lorig	2008	Passive	1	1	1		1	1	1				
Menga	2014	Passive		1					1				
Mourad	2016	Passive	1	1			1		1	1	1	1	
Oerlemans	2011	Passive	1		1					1			
Ruehlman	2012	Passive	1	1	1			1	1	1		1	
Schulz	2007	Passive		1	1	1		1	1				
Strom	2000	Passive	1		1				1			1	
Trompetter	2015	Passive	1	1			1		1			1	
Vallejo	2015	Passive	1	1	1		1		1				
Weise	2016	Passive	1	1	1		1		1			1	
Williams	2010	Passive		1	1				1		1	1	
Wilson	2015	Passive	1	1	1			1	1	1		1	
Andersson	2003	Active									1		
Camerini	2012	Active		1		1		1	1				
de Boer	2014	Active	1	1	1		1		1		1	1	
Dear	2015	Active					1				1		
Everitt	2013	Active					1					1	
Hesser	2012	Active		1									
Jasper	2014	Active		Ť			1		1			1	
Kaldo	2008	Active	1		1		1		1			1	
Kristjánsdóttir	2013	Active	1		1		È		1	1	1		
Ljotsson	2011	Active	ŕ		Ė				Ė	ŕ	Ť		
Moessner	2014	Active	1				1	1	1				
Naylor	2008	Active	1	\vdash			Ħ	Ė	_	\vdash	1		
Riva	2014	Active	-	1							<u> </u>		
Trompetter	2014	Active		1			1		 	 			
Vallejo	2015	Active	1	1	1		1	-	1				
	ns: 1-11 are the items of the taxo		_	_	_	oot			1	<u> </u>	<u> </u>		<u> </u>

Column explanations: 1-11 are the items of the taxonomy. Here mentioned per category:

- Automated Functions: 1. Automated tailored feedback, 2. Enriched information environment, 3. Automated follow-up messages
- Communicative Functions: 4. Access to advisor to request advice, 5. Scheduled contact with advisor, 6. Peer-to-peer access
- Supplementary modes: 7. Internet, 8. Text message (SMS), 9. Telephone, 10. Email, 11. CD-ROM

Overview of meta-analyses; *SMD*s, 95% confidence intervals, heterogeneity statistics, forest plots and funnel plots), and sensitivity analyses

Comparison 1: Computer-based interventions versus passive controls (tables F-O, figs A-N)

Outcome 1.1: Symptom intensity (post)

Number of eligible studies reporting the outcome: 29

Total number participants: 3284

Table F

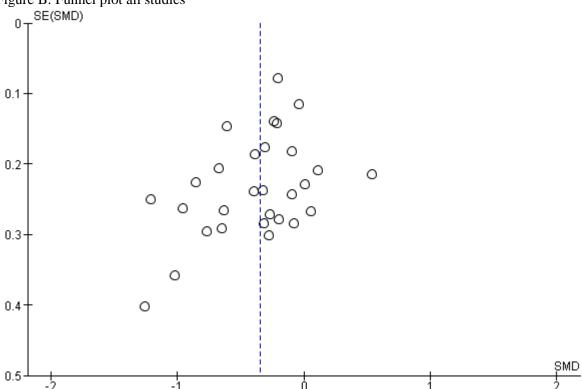
	SMD	95% CI	I^2	P
All eligible studies (k = 29)	35	[48,22]	65%	<.001
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 4)$	44	[69,20]	40%	.17
Low risk attrition bias $(k = 5)$ *	57	[93,22]	71%	.009
Low risk reporting bias $(k = 6)$	31	[61,01]	80%	<.001
Low risk performance bias $(k = 9)$	45	[65,24]	50%	.04
Low risk due to incomplete data extracted $(k = 8)$	39	[56,23]	28%	.20
Low risk detection bias $(k = 27)$	34	[47,21]	65%	<.001
Low risk other bias $(k = 25)$	33	[46,20]	66%	<.001
External validity				
Participants recruited from a general (open) population (k = 17)	35	[50,21]	53%	.006
Participants recruited from a clinical (closed) population $(k = 7)$	33	[68, .02]	79%	<.001

^{*} Test for subgroup differences (attrition bias): $Chi^2 = 1.96$, df = 1 (P = 0.16), $I^2 = 49.0\%$

Figure A: Forest plot all studies

Study or Subgroup	EX Mean	perimenta SD		Mean	Control SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
lunt 2009	35	12	13	52	14	18	1.8%	-1.25 [-2.04, -0.47]	
jótsson 2010	32.2	12.1	34	47.3	12.6	43	3.2%	-1.21 [-1.70, -0.72]	
Junt 2015	42	13.5	17	55		19	2.1%		
	3.03			5.13	11.5	32	3.0%	-1.02 [-1.72, -0.32]	
.ee 2014 Yoyingni 2005	18.6	1.9 13	33 39	30.6	2.42 14.7	47	3.5%	-0.96 [-1.47, -0.44]	
evineni 2005								-0.85 [-1.30, -0.41]	
.jotsson 2011	31	10.2	23	40.9	14.5	27	2.7%	-0.77 [-1.34, -0.19]	·
(noop 2008	38.9	12.1	85	46.4	8.7	86	0.0%	-0.71 [-1.02, -0.40]	
anse 2016	32.77	14.82	50	41.6	11.09	50	3.7%	-0.67 [-1.07, -0.27]	
owd 2015	3.73	2.12	23	5.1	2.07	27	2.7%	-0.64 [-1.22, -0.07]	
ear 2013	4.68	1.7	30	5.81	1.85	30	3.0%	-0.63 [-1.15, -0.11]	
ear 2015	4.68	1.79	139	5.71	1.5	74	4.6%	-0.61 [-0.89, -0.32]	 _
uhrman 2013	3.72	1.1	36	4.18	1.21	36	3.3%	-0.39 [-0.86, 0.07]	
/illiams 2010	4.3	1.6	59	4.9	1.5	59	4.0%	-0.38 [-0.75, -0.02]	
erlemans 2011	1.46	1.3	36	1.89	1.3	36	3.3%	-0.33 [-0.79, 0.14]	
uhrman 2004	34.3	16.8	22	39.6	16.3	29	2.8%	-0.32 [-0.87, 0.24]	
arpenter 2012	5.2	1.5	63	5.7	1.7	68	4.2%	-0.31 [-0.65, 0.04]	
ström 2000	49.78	26.38	20	56.26	19.54	25	2.6%	-0.28 [-0.87, 0.31]	
rattberg 2006	-50	30.1	27	-42.1	27.1	28	2.9%	-0.27 [-0.80, 0.26]	
(rein 2013	4.7	2.1	101	5.2	2.1	106	4.7%	-0.24 [-0.51, 0.04]	
hiauzzi 2010	4.64	2.53	95	5.17	2.35	104	4.6%	-0.22 [-0.50, 0.06]	
orig 2008	5.86	2.44	310	6.34	2.31	331	5.5%	-0.20 [-0.36, -0.05]	
luhrman 2015	3.75	1.05	28	3.95	0.93	24	2.9%	-0.20 [-0.74, 0.35]	
rompetter 2015	5.4	2.2	59	5.6	2.1	62	4.1%	-0.09 [-0.45, 0.26]	
ndersson 2002	6.2	2.3	24	6.4	2.1	59	3.3%	-0.09 [-0.57, 0.38]	
uhrman 2011	3.15	2.2	23	3.35	2.6	27	2.8%	-0.08 [-0.64, 0.48]	
Ruehlman 2012	22.75	4.14	162	22.93	4.25	143	5.0%	-0.04 [-0.27, 0.18]	
allejo 2015	0	0	0	0	0	0		Not estimable	
Veise 2016	0	0	0	0	0	0		Not estimable	
loessner 2014	0	0	0	0	0	0		Not estimable	
ourad 2016	0	Ō	0	0	0	0		Not estimable	
laylor 2008	0	0	0	Ō	Ō	Ō		Not estimable	
Riva 2014	Ö	Ö	0	Ö	Ö	Ō		Not estimable	
chulz 2007	Ö	Ö	Ō	Ö	Ō	Ō		Not estimable	
ristjánsdóttir 2013	0	0	0	ő	Ö	Ō		Not estimable	
jotsson 2011a	0	0	0	0	0	Ö		Not estimable	
lenga 2014	0	0	0	0	0	0		Not estimable	
aldo 2008	0	0	0	0	0	0		Not estimable	
lesser 2012	0	0	0	0	0	0		Not estimable	
asper 2014	0	0	0	0	0	0		Not estimable	
asper 2014 Pavis 2013	0	0	0	0	0	0		Not estimable	
	0	0	0	0	0	0			
e Boer 2014 nderseen 2002	0		0	0	0	0		Not estimable	
ndersson 2003	_	0						Not estimable	
amerini 2012	0	0	0	4.20	0	0	2.400	Not estimable	
uhrman 2013a	4.3	1.04	38	4.29	1	38	3.4%	0.01 [-0.44, 0.46]	
bbott 2009	4.58	1.7	28	4.48	1.7	28	3.0%	0.06 [-0.47, 0.58]	
Vilson 2015	5.3	1.9	45	5.1	1.8	47	3.7%	0.11 [-0.30, 0.52]	 _
veritt 2013	208	83.2132	45	162.8	84.5446	45	3.6%	0.53 [0.11, 0.96]	
otal (95% CI)			1622			1662	100.0%	-0.35 [-0.48, -0.22]	•
leterogeneity: Tau² =	0.07: Ch	ni²= 80.67	. df = 2	8 (P < N	.00001): I²	= 65%			
		(P < 0.000				2070			- ' - ' i i





Outcome 1.2: Health-related Quality Of Life (post)

Number of eligible studies reporting the outcome: 14

Total number participants: 1408

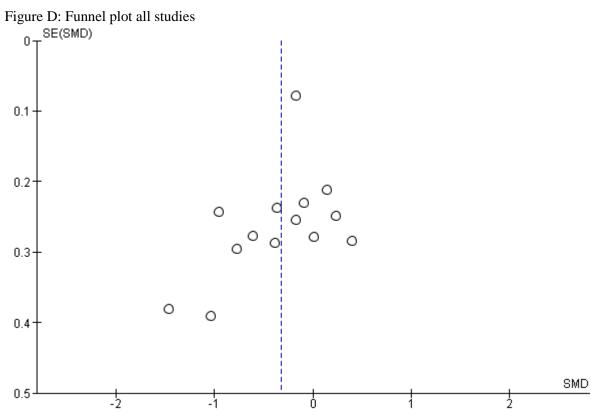
Table G

	SMD	95% CI	I^2	P
All eligible studies (k = 14)	36	[58,13]	70%	<.001
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 3)$	50	[86,13]	27%	.25
Low risk attrition bias $(k = 3)$	38	[97, .21]	75%	.02
Low risk reporting bias $(k = 1)$.14	[27, .56]	/	/
Low risk performance bias $(k = 3)$	51	[99,03]	62%	.07
Low risk due to incomplete data extracted $(k = 3)$	31	[59,03]	0%	.38
Low risk detection bias				
Low risk other bias $(k = 12)$	25	[46,05]	62%	.002
External validity				
Participants recruited from a general (open) population $(k = 8)$ *	49	[75,23]	61%	.01
Participants recruited from a clinical (closed) population $(k = 4)$ *	.02	[45, .48]	70%	.02

^{*} Test for subgroup differences: $Chi^2 = 2.75$, df = 1 (P = 0.10), $I^2 = 63.7\%$

Figure C: Forest plot all studies

		perimental			Control			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean		Total	Mean		Total		IV, Random, 95% CI	IV, Random, 95% CI
Hunt 2015	-66	16	17	-36	23	19	5.0%	-1.47 [-2.21, -0.72]	
Hunt 2009	84	26	13	111	25	18	4.9%	-1.03 [-1.80, -0.27]	
jótsson 2010	-72.8	19.9	34	-52.9	21.3	43	7.5%	-0.95 [-1.43, -0.48]	
jotsson 2011	-82.6	13.4	23	-67.4	23.1	27	6.5%	-0.78 [-1.35, -0.20]	
3rattberg 2006	-58.6	22.5	27	-45.9	18.2	28	6.8%	-0.61 [-1.15, -0.07]	
uhrman 2011	-1.7	1.4	23	-1.1	1.6	27	6.6%	-0.39 [-0.95, 0.17]	
uhrman 2013	-1.3	2.07	36	-0.61	1.65	36	7.6%	-0.36 [-0.83, 0.10]	
orig 2008	0.515	0.456	310	0.598	0.483	331	10.8%	-0.18 [-0.33, -0.02]	-
lesser 2012	-2.53	1.55	30	-2.27	1.5	32	7.3%	-0.17 [-0.67, 0.33]	
luhrman 2013a	-0.56	2.07	38	-0.39	1.77	38	7.8%	-0.09 [-0.54, 0.36]	
chulz 2007	0	0	0	0	0	0		Not estimable	
laylor 2008	0	0	0	0	0	0		Not estimable	
ourad 2016	0	0	0	0	0	0		Not estimable	
ristjánsdóttir 2013	0	0	0	0	0	0		Not estimable	
aylor 2010	0	0	0	0	0	0		Not estimable	
evineni 2005	0	0	Ō	0	Ō	0		Not estimable	
rein 2013	0	Ō	Ō	Ō	Ō	0		Not estimable	
oessner 2014	Ö	Ō	Ō	Ö	Ö	0		Not estimable	
ear 2015	0	Ō	Ō	Ō	Ō	0		Not estimable	
asper 2014	Ō	Ō	Ō	Ō	Ō	0		Not estimable	
anse 2016	Ö	Ō	Ō	Ö	ō	Ō		Not estimable	
tröm 2000	0	0	Ö	0	Ö	0		Not estimable	
/eise 2016	0	0	0	0	0	0		Not estimable	
allejo 2015	0	0	0	0	0	0		Not estimable	
vilson 2015	0	0	0	0	0	0		Not estimable	
viison 2013 Villiams 2010	0	0	0	0	0	0		Not estimable	
rompetter 2015	0	0	0	0	0	0		Not estimable	
uehlman 2012	0	0	0	0	0	0		Not estimable	
lenga 2014	0	0	0	0	0	0		Not estimable	
-	0	0	0	0	0	0			
Ruhrman 2004	0	0	0	0	0	0		Not estimable	
erlemans 2011	_	_	_	_	0	0		Not estimable	
jotsson 2011a	0	0	0	0				Not estimable	
ear 2013	0	_	_	0	0	0		Not estimable	
?iva 2014	0	0	0	0	0	0		Not estimable	
lowd 2015	0	0	0	0	0	0		Not estimable	
e Boer 2014	0	0	0	0	0	0		Not estimable	
amerini 2012	0	0	0	0	0	0		Not estimable	
arpenter 2012	0	0	0	0	0	0		Not estimable	
ndersson 2003	0	0	0	0	0	0		Not estimable	
ndersson 2002	0	0	0	0	0	0		Not estimable	
aldo 2008	0	0	0	0	0	0		Not estimable	
hiauzzi 2010	0	0	0	0	0	0		Not estimable	
avis 2013	0	0	0	0	0	0		Not estimable	
uhrman 2015	-1.38	1.78	28	-1.39	1.59	24	6.8%	0.01 [-0.54, 0.55]	
veritt 2013	-67.6	12.3155	45	-69.4	12.3155	45	8.2%	0.14 [-0.27, 0.56]	
.ee 2014	-52.48	23.28	33	-57.59	18.64	32	7.4%	0.24 [-0.25, 0.73]	+-
bbott 2009	-66.95	13.3	28	-72.37	13.7	23	6.7%	0.40 [-0.16, 0.95]	+-
otal (95% CI)			685			723	100.0%	-0.32 [-0.55, -0.10]	•
leterogeneity: Tau² =	- 0 11· Ch	i2 – 42 77 -		(P < 0.0	0043:12 - 3		. 0 0 10 /0		<u> </u>
eterogeneity. Tau== est for overall effect:				√L ~ 0.0	001),1 = 1	0.70			-2 -1 0 1 2
sacioi overali ellect	∠= 2.83	(= 0.005)							Favours [experimental] Favours [control]



Outcome 1.3: Functional interference (post)

Number of eligible studies reporting the outcome: 30

Total number participants: 3387

Table H

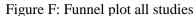
	SMD	95% CI	I ²	P
All eligible studies ($k = 30$)	35	[45,25]	45%	.004
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 4)$	43	[61,25]	3%	.38
Low risk attrition bias $(k = 8)$ *	53	[68,39]	0%	.44
Low risk reporting bias (k = 7)	50	[71,28]	66%	.007
Low risk performance bias (k = 12)	49	[61,36]	0%	.46
Low risk due to incomplete data extracted $(k = 11)$	48	[63,32]	40%	.08
Low risk detection bias				
Low risk other bias $(k = 27)$	35	[46,25]	48%	.004
External validity				
Participants recruited from a general (open) population (k = 18)	42	[56,28]	56%	.002
Participants recruited from a clinical (closed) population (k = 8)	28	[46,09]	26%	.22

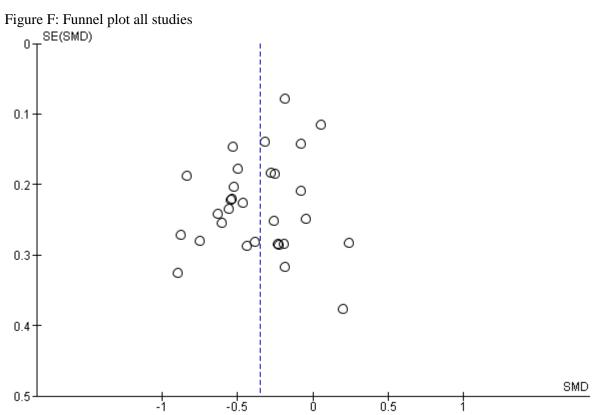
SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

^{*} Test for subgroup differences: attrition bias $Chi^2 = 7.97$, df = 1 (P = 0.005), $I^2 = 87.5\%$, performance bias $Chi^2 = 5.10$, df = 1 (P = 0.02), $I^2 = 80.4\%$

Figure E: Forest plot

iguie E. Polest		erimental	I	0	ontrol			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Menga 2014	43.9	16.4	17	58.6	16.1	27	1.9%	-0.89 [-1.53, -0.25]	
Dear 2013	10.1	5.23	30	14.77	5.33	30	2.5%	-0.87 [-1.40, -0.34]	
Weise 2016	32.56	16.5	62	45.77	15.06	62	4.0%	-0.83 [-1.20, -0.46]	
Brattberg 2006	-35.2	37.5	27	-10.7	26.7	28	2.4%	-0.74 [-1.29, -0.20]	
Buhrman 2013	3.62	1.08	36	4.32	1.12	36	2.9%	-0.63 [-1.10, -0.16]	
Hesser 2012	38.93	19.72	33	49.94	16.09	32	2.7%	-0.60 [-1.10, -0.11]	
Buhrman 2013a	4.37	1.09	38	4.94	0.93	38	3.1%	-0.56 [-1.02, -0.10]	
Jasper 2014	26.67	20.75	41	37.46	18.94	44	3.3%	-0.54 [-0.97, -0.11]	
Devineni 2005	38	19.5	39	49.6	23.1	47	3.3%	-0.53 [-0.97, -0.10]	
Dear 2015	11.05	5.63	139	13.97	5.17	74	5.0%	-0.53 [-0.82, -0.24]	
Janse 2016	458.36	576.88	50	731.58	455.34	50	3.6%	-0.52 [-0.92, -0.12]	
Carpenter 2012	13.5	5.8	63	16.3	5.4	68	4.2%	-0.50 [-0.85, -0.15]	
_jótsson 2010	7.5	7.4	38	11.4	9	43	3.2%	-0.47 [-0.91, -0.02]	
_jotsson 2016 Dowd 2015	24.83	15.3	23	31.5	14.7	27	2.3%	-0.44 [-1.00, 0.12]	
	3.31	1.29	28	3.8		24	2.4%		
3uhrman 2015 ⁄naan 2000					1.21			-0.38 [-0.94, 0.17]	
Knoop 2008 Kroin 2012	1,079	690	85 101	1,319	619	86 406	0.0%	-0.36 [-0.67, -0.06]	
Krein 2013	6.6	5	101	8.2	422	106	5.2%	-0.32 [-0.59, -0.04]	
Frompetter 2015	28.7	12	59	32.1	12.3	62	4.1%	-0.28 [-0.64, 0.08]	
Andersson 2002	29.5	22.2	24	35.4	23	48	2.8%	-0.26 [-0.75, 0.24]	
Williams 2010	-41.1	8.7	59	-38.9	8.6	59	4.0%	-0.25 [-0.62, 0.11]	
Buhrman 2004	3.2	1.4	22	3.5	1.2	29	2.4%	-0.23 [-0.79, 0.33]	
Buhrman 2011	3.2	1.4	23	3.5	1.2	27	2.3%	-0.23 [-0.79, 0.33]	
jotsson 2011_	6.4	6.7	23	7.8	7.6	27	2.3%	-0.19 [-0.75, 0.37]	
orig 2008.	1.97	1.32	310	2.19	1.07	331	7.0%	-0.18 [-0.34, -0.03]	
/allejo 2015	56.99	18.17	20	60.35	17.72	20	2.0%	-0.18 [-0.80, 0.44]	
Chiauzzi 2010	42.62	18.3	95	44.09	17.7	104	5.1%	-0.08 [-0.36, 0.20]	
Vilson 2015	5.3	2.6	45	5.5	2.4	47	3.5%	-0.08 [-0.49, 0.33]	
_ee 2014	-74.24	37.23	33	-72.66	30.69	32	2.8%	-0.05 [-0.53, 0.44]	
de Boer 2014	0	0	0	0	0	0		Not estimable	
Naylor 2008	0	0	0	0	0	0		Not estimable	
Derlemans 2011	0	0	0	0	0	0		Not estimable	
Riva 2014	0	0	0	0	0	0		Not estimable	
Noessner 2014	0	0	0	0	0	0		Not estimable	
Davis 2013	0	0	0	0	0	0		Not estimable	
Andersson 2003	0	0	0	0	0	0		Not estimable	
Schulz 2007	0	0	0	0	0	0		Not estimable	
Mourad 2016	0	0	0	0	0	0		Not estimable	
jotsson 2011a	0	0	0	0	0	0		Not estimable	
ristjánsdóttir 2013	0	Ō	0	0	0	0		Not estimable	
Camerini 2012	0	0	0	0	0	0		Not estimable	
Everitt 2013	Ō	Ö	ō	ō	ō	Ō		Not estimable	
(aldo 2008	Ö	Õ	Ö	Ö	Ö	Ō		Not estimable	
Hunt 2015	0	0	Ö	0	0	0		Not estimable	
Tunt 2009	0	0	0	0	0	0		Not estimable	
Ruehlman 2012	22.31	8.61	162	21.85	8.47	143	5.9%	0.05 [-0.17, 0.28]	
				36.4		20			
Ström 2000	40.55	15.57	11		22.07		1.5%	0.20 [-0.54, 0.94]	
Abbott 2009	16.64	12.3	28	13.96	9.7	23	2.4%	0.24 [-0.32, 0.79]	
Total (95% CI)			1679			1708	100.0%	-0.35 [-0.45, -0.25]	•
	0.02:05:	s _ 60.00) /D = 0.0	0.4\- 12 =		100.070	-0.00 [-0.40, -0.20]	▼
Heterogeneity: Tau² =				o (r = 0.U	04), [*= -	4070		_	-1 -0.5 0 0.5 1
est for overall effect:	∠= 0.83 (г < 0.000	01)						Favours [experimental] Favours [control]





Outcome 1.4: Catastrophizing (post)

Number of eligible studies reporting the outcome: 24 Total number participants: 2900

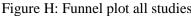
Table I

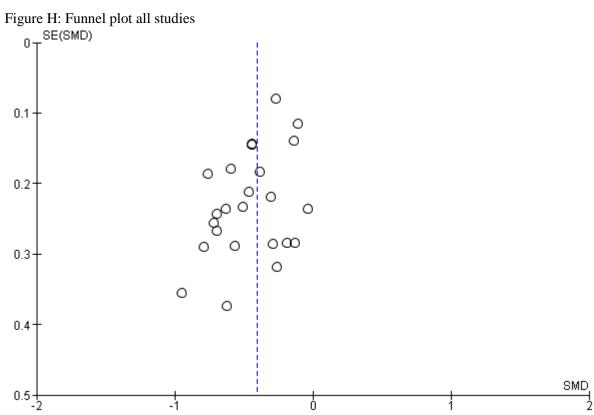
	SMD	95% CI	I^2	P
All eligible studies ($k = 24$)	41	[50,31]	28%	.1
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 4)$	34	[59,1]	41%	.17
Low risk attrition bias $(k = 7)$	54	[77,31]	51%	.06
Low risk reporting bias $(k = 6)$	43	[59,26]	37%	.16
Low risk performance bias (k = 11)	5	[63,37]	0%	.46
Low risk due to incomplete data extracted $(k = 10)$	49	[62,35]	7%	.38
Low risk detection bias				
Low risk other bias $(k = 21)$	4	[5,3]	31%	.09
External validity				
Participants recruited from a general (open) population (k = 16)	44	[56,32]	34%	.09
Participants recruited from a clinical (closed) population (k = 3)	16	[.39, .07]	0%	.93

SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

Figure G: Forest plot all studies

Study or Subgroup	Mean	erimental SD	Total	Mean	Control	Total		Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
	44		17	57	12.9				
Hunt 2015 Buhrman 2015	14.49	13.9 9.49	28	22.94	11.65	19 24	1.7% 2.4%	-0.95 [-1.64, -0.26]	
Veise 2016	-44.02	9.49		-36.47	10.39	62	4.8%	-0.79 [-1.36, -0.22] -0.76 [-1.13, -0.40]	
Hesser 2012	-44.27	9.69	33	-36.81	10.35	32	3.0%		
Dear 2013	2.01	0.9	30	2.7	1.05	30	2.8%	-0.71 [-1.22, -0.21] -0.70 [-1.22, -0.17]	
Buhrman 2013	9.56	7.06	36	14.93	8.23	36	3.2%		
_jótsson 2010	30.2	17.8	34	41.9	18.7	43	3.4%	-0.69 [-1.17, -0.22]	
Jusson 2010 Hunt 2009	1.9	0.93	13	2.5	0.95	18	1.5%	-0.63 [-1.09, -0.17]	
Carpenter 2012	1.6	0.93	63	2.2	0.93	68	5.1%	-0.62 [-1.35, 0.11] -0.60 [-0.95, -0.25]	
Buhrman 2004	8.6	5.2	22	12.3	7.2	29	2.4%	-0.57 [-1.13, -0.00]	
	16.08	5.91	38	12.3	5.56	38	3.4%		
Buhrman 2013a	-28.6	12.9	30 45	-22.5	13.4	30 47	4.0%	-0.50 [-0.96, -0.05]	
Wilson 2015 Chiauzzi 2010		12.14	95	21.08	15.4	104	6.8%	-0.46 [-0.87, -0.05]	
Dear 2015	14.92 -26.79		139	-23.66	7.66	74	6.7%	-0.44 [-0.73, -0.16]	
Dear 2015 Frompetter 2015	13.5	6.69	59	17.8		7.4 62	4.9%	-0.44 [-0.73, -0.16]	
•	-47.91	11.3	41	-43.99	11 13.51	44		-0.38 [-0.74, -0.02]	
Jasper 2014 Pubrman 2011	9.5	11.7					3.8%	-0.31 [-0.73, 0.12]	
Buhrman 2011		5.5 2.07	23 310	11.6 -5.14	8.2 2.05	27	2.5%	-0.29 [-0.85, 0.27]	
_orig 2008 (allaia 2016	-5.69 24.63	2.07 5.11	20	26.77	2.05 10.33	331 20	11.5% 2.1%	-0.27 [-0.42, -0.11]	
/allejo 2015 _jotsson 2011	6.4	6.7	23	7.8	7.6	27	2.1%	-0.26 [-0.88, 0.37] -0.19 [-0.75, 0.37]	
•			101	14	7.6 5.9	106	7.0%		
<rein 2013<br="">Dowd 2015</rein>	13.2 12.93	6 0.57	23	14.12	9.12	27	2.5%	-0.13 [-0.41, 0.14]	
Ruehlman 2012	8.18	8.57 5.45	162	8.77	5.19	143	2.5% 8.6%	-0.13 [-0.69, 0.42]	
Derlemans 2011		15.1618	36	24.13	15.0731	36	3.4%	-0.11 [-0.34, 0.11] -0.04 [-0.50, 0.43]	
	23.57	13.1616	30 0	24.13	15.0731	30 0	3.470		
Menga 2014	0	0	0	0	0	0		Not estimable	
Everitt 2013	0	0	0	0	0	0		Not estimable	
Janse 2016	0	0	0	0	0	0		Not estimable	
Kaldo 2008 Milliama 2010	0	0	0	0	0	0		Not estimable	
Williams 2010 Mourad 2016	0	0	0	0	0	0		Not estimable	
	0	0	0	0	0	0		Not estimable	
Naylor 2008	0	0	0	0	0	0		Not estimable	
Riva 2014	-	-		0		0		Not estimable	
Lee 2014 Zrietiánskáttir 2012	0	0	0	0	0	0		Not estimable	
Kristjánsdóttir 2013	0	0	0	0	0	0		Not estimable	
_jotsson 2011a .doocspor 2014	0	0	0	0	0	0		Not estimable	
Moessner 2014	0	0	0	0	0	0		Not estimable	
Andersson 2002	0	0	0	0	0	0		Not estimable	
Abbott 2009 Ström 2000	0	0	0	0	0	0		Not estimable	
Ström 2000	0	0	0	0	0	0		Not estimable	
Schulz 2007	0	0	0	0	0	0		Not estimable	
Brattberg 2006	0	0	0	0	0	0		Not estimable	
Camerini 2012						0		Not estimable	
Devineni 2005	0	0	0	0	0	0		Not estimable	
Andersson 2003	0	0	0					Not estimable	
Davis 2013	0	0	0	0	0	0		Not estimable	
de Boer 2014	U	U	U	U	U	0		Not estimable	
Total (95% CI)			1453			1447	100.0%	-0.41 [-0.50, -0.31]	•
/					0); I²= 289			,	





Outcome 1.5: Depression (post)

Number of eligible studies reporting the outcome: 24

Total number participants: 2221

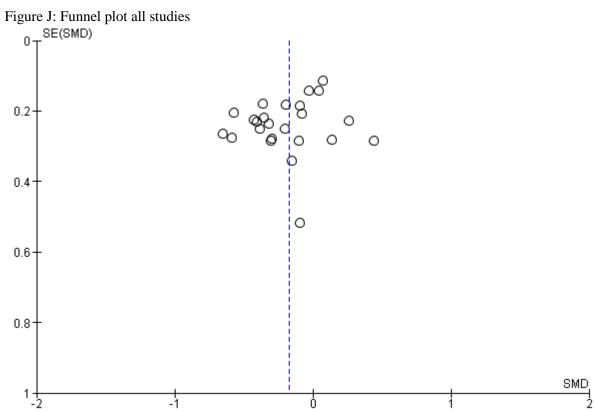
Table J

	SMD	95% CI	\mathbf{I}^2	P
All eligible studies (k = 24)	18	[28,07]	29%	.1
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias (k = 3)	25	[65, .14]	61%	.08
Low risk attrition bias $(k = 8)$ *	42	[59,26]	0%	.95
Low risk reporting bias $(k = 8)$	24	[45,02]	51%	.04
Low risk performance bias $(k = 11)$	22	[35,08]	3%	.41
Low risk due to incomplete data extracted $(k = 10)$	25	[4,11]	31%	.16
Low risk detection bias				
Low risk other bias $(k = 21)$	18	[29,07]	38%	.04
External validity				
Participants recruited from a general (open) population $(k = 15)$ *	2	[32,08]	20%	.23
Participants recruited from a clinical (closed) population $(k = 5)^*$	03	[4, .35]	65%	.02

^{*} Test for subgroup differences: attrition bias (low vs. unclear or high risk) $Chi^2 = 13.27$, df = 1 (P = 0.0003), $I^2 = 92.5\%$; open vs. closed Test for subgroup differences: $Chi^2 = 0.76$, df = 1 (P = 0.38), $I^2 = 0\%$.

Figure I: Forest plot

	-	erimenta			ontrol			Std. Mean Difference	Std. Mean Difference
tudy or Subgroup	Mean		Total	Mean		Total		IV, Random, 95% CI	IV, Random, 95% CI
ear 2013	7.55	5.54	30	11.32	5.93	30	3.2%	-0.65 [-1.17, -0.13]	
rattberg 2006	13	10.7	27	19.5	11.2	28	3.0%	-0.58 [-1.13, -0.04]	
anse 2016	116.44	26.17	50	131.86	27.36	50	4.7%	-0.57 [-0.97, -0.17]	
jótsson 2010	6.9	8.1	38	10.5	8.6	43	4.1%	-0.43 [-0.87, 0.02]	
uhrman 2013a	8.85	4.4	38	10.52	3.77	38	3.9%	-0.40 [-0.86, 0.05]	
lesser 2012	3.48	2.43	33	4.59	3.29	32	3.5%	-0.38 [-0.87, 0.11]	
Veise 2016	5.27	3.72	62	6.66	3.98	62	5.5%	-0.36 [-0.71, -0.00]	
asper 2014	4.41	3.72	41	5.88	4.41	44	4.3%	-0.36 [-0.78, 0.07]	
uhrman 2013	6.95	4.07	36	8.19	3.68	36	3.8%	-0.32 [-0.78, 0.15]	
uhrman 2011	4.9	3.6	23	6.3	5.2	27	2.8%	-0.30 [-0.86, 0.26]	
uhrman 2015	15.77	7.79	28	17.95	6.51	24	2.9%	-0.30 [-0.85, 0.25]	
ndersson 2002	5.2	4.1	24	6	3.79	48	3.5%	-0.20 [-0.69, 0.29]	
rompetter 2015	5.1	3.7	59	5.8	3.5	62	5.5%	-0.19 [-0.55, 0.16]	
tröm 2000	6.93	7.41	14	7.86	4.85	22	2.1%	-0.15 [-0.82, 0.52]	
owd 2015	13.5	5.45	23	14.05	5.6	27	2.9%	-0.10 [-0.65, 0.46]	
lourad 2016	5	3.4	7	5.6	7.4	8	1.0%	-0.10 [-1.11, 0.92]	
Villiams 2010	16.4	11.9	59	17.5	11.5	59	5.4%	-0.09 [-0.45, 0.27]	
Vilson 2015	10.1	6.4	45	10.6	5.7	47	4.6%	-0.08 [-0.49, 0.33]	
hiauzzi 2010	11.15	10.52	95	11.44	9.99	104	7.4%	-0.03 [-0.31, 0.25]	
orig 2008	0	0	0	0	0	0		Not estimable	
lunt 2009	0	0	0	0	0	0		Not estimable	
lenga 2014	0	0	0	0	0	0		Not estimable	
loessner 2014	0	0	0	0	0	0		Not estimable	
rein 2013	0	0	0	0	0	0		Not estimable	
lunt 2015	0	0	0	0	0	0		Not estimable	
(aldo 2008	0	0	0	0	0	0		Not estimable	
ndersson 2003	0	0	0	0	0	0		Not estimable	
amerini 2012	0	0	0	0	0	0		Not estimable	
arpenter 2012	0	0	Ō	0	Ō	0		Not estimable	
evineni 2005	0	0	ō	0	Ō	0		Not estimable	
íristjánsdóttir 2013	Ō	Ō	Ō	Ō	ō	Ō		Not estimable	
ee 2014	0	0	ō	0	Ō	Ō		Not estimable	
jotsson 2011	0	0	ō	0	Ō	0		Not estimable	
jotsson 2011a	0	Ō	ō	0	Ō	0		Not estimable	
erlemans 2011	0	Ō	ō	Ō	ō	Ō		Not estimable	
liva 2014	Ö	Ö	Ō	Ö	ō	Ō		Not estimable	
avis 2013	Ö	Ö	Õ	Ö	ō	Ō		Not estimable	
e Boer 2014	Ö	Ö	Õ	Ö	ō	Ō		Not estimable	
allejo 2015	Ö	ő	Ō	Ö	ō	Ō		Not estimable	
laylor 2008	Ö	Ö	Ō	Ö	Ö	Õ		Not estimable	
chulz 2007	Ö	Ö	Ō	Ö	Ö	Ö		Not estimable	
ear 2015	11.25	4.86	139	11.04	5.25	74	7.3%	0.04 [-0.24, 0.32]	
tuehlman 2012	22.37		162	21.49		143	9.0%	0.07 [-0.16, 0.29]	
uhrman 2004	6	4.7	22	5.4	4	29	2.9%	0.14 [-0.42, 0.69]	
veritt 2013	5.59	3.68	39	4.63	3.56	39	4.0%	0.26 [-0.18, 0.71]	
bbott 2009	4.61	5.3	28	2.43	4.3	23	2.8%	0.44 [-0.12, 1.00]	
DD011 2003	7.01	5.5	20	2.73	4.5	23	2.070	3.44 [-0.12, 1.00]	
otal (95% CI)			1122			1099	100.0%	-0.18 [-0.28, -0.07]	•
leterogeneity: Tau² =	0.02: Obi	z = 32.2.		3 (P = 0	10): 12 -				<u> </u>
	0.04. 011	- 32.2	$r_1 \cdot u_1 = 2$			2070			-2 -1 0 1



Outcome 1.6: Symptom intensity (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 4

Total number participants: 1015

Table K

	SMD	95% CI	I^2	P
All eligible studies $(k = 4)$	18	[30,05]	0%	.52

Figure K: Forest plot all studies

	Expe	erimen	ıtaı	C	ontrol		Std. Mean Difference		Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Trompetter 2015	4.9	2.3	82	5.6	2.1	77	15.6%	-0.32 [-0.63, -0.00]	
Chiauzzi 2010	4.39	3.02	88	5.26	2.86	67	15.0%	-0.29 [-0.61, 0.03]	
Lorig 2008	5.77	2.53	307	6.1	2.35	344	64.5%	-0.14 [-0.29, 0.02]	
Moessner 2014	0	0	0	0	0	0		Not estimable	
Naylor 2010	0	0	0	0	0	0		Not estimable	
Hesser 2012	0	0	0	0	0	0		Not estimable	
Jasper 2014	0	0	0	0	0	0		Not estimable	
Brattberg 2007	0	0	0	0	0	0		Not estimable	
Vallejo 2015	0	0	0	0	0	0		Not estimable	
Ljotsson 2011a	0	0	0	0	0	0		Not estimable	
Kristjánsdóttir 2013a	0	0	0	0	0	0		Not estimable	
Dowd 2015	4.81	2.01	23	4.69	1.97	27	4.9%	0.06 [-0.50, 0.62]	
Total (95% CI)			500			515	100.0%	-0.18 [-0.30, -0.05]	◆
Heterogeneity: Tau² = 0	0.00; Chi	= 2.2	4, df = 3	3 (P = 0.	.52); l²	= 0%			-2 -1 1 2
Test for overall effect: Z	= 2.81 (P = 0.0	005)						Favours [experimental] Favours [control]
									r avours (experimentar) i avours (control)

Outcome 1.7 HRQOL (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 1

Total number participants: 651

Table L

	SMD	95% CI	I^2	P
All eligible studies ($k = 1$; Lorig 2008)	.13	[02,28]	/	/

Outcome 1.8 Functional interference (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 4

Total number participants: 1015

Table M

	SMD	95% CI	I^2	P
All eligible studies $(k = 4)$	19	[31,06]	0%	.55

Figure L: Forrest plot all studies

	Exp	eriment	tal	(Control			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Dowd 2015	30.71	14.39	23	35.47	11.9	27	4.9%	-0.36 [-0.92, 0.20]	
Trompetter 2015	27.2	12	82	30.6	11.3	77	15.7%	-0.29 [-0.60, 0.02]	
Lorig 2008	1.9	1.15	307	2.11	1.04	344	64.3%	-0.19 [-0.35, -0.04]	■
Chiauzzi 2010	44.51	17.03	67	44.53	17.54	88	15.2%	-0.00 [-0.32, 0.32]	+
Vallejo 2015	0	0	0	0	0	0		Not estimable	
Total (95% CI)			479			536	100.0%	-0.19 [-0.31, -0.06]	◆
Heterogeneity: Tau ² :	= 0.00; C	$hi^2 = 2.0$)9, df=	3(P = 0)	l.55); l² =	= 0%		-	
Test for overall effect	: Z= 2.95	5 (P = 0.	003)						Favours [experimental] Favours [control]

Outcome 1.9 Catastrophizing (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 4

Total number participants: 1015

Table N

	SMD	95% CI	I^2	P
All eligible studies $(k = 4)$	32	[47,17]	19%	.30
SMD = Standardized mean diffe	erence, CI	= Confidence int	erval, P	= P-value

mean differences

Figure M: Forrest plot all studies

	Expe	erimen	tal	C	ontrol			Std. Mean Difference	Std. Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	
Chiau zz i 2010	5.05	4.69	67	7.56	4.58	88	19.0%	-0.54 [-0.86, -0.22]		
Trompetter 2015	11.9	11.9	82	16.3	11.1	77	20.0%	-0.38 [-0.69, -0.07]		
Lorig 2008	-5.89	2.09	307	-5.34	2.06	344	53.8%	-0.26 [-0.42, -0.11]	-	
Vallejo 2015	0	0	0	0	0	0		Not estimable		
Dowd 2015	13.28	8.44	23	13.22	8.37	27	7.2%	0.01 [-0.55, 0.56]		
Total (95% CI)			479			536	100.0%	-0.32 [-0.47, -0.17]	•	
Heterogeneity: Tau² =			•	,	0.30);	I ^z = 199	%	-	-5 -1 1 1 5	
Test for overall effect	Z = 4.07	'(P < 0	1.0001)						Favours [experimental] Favours [control]	

Outcome 1.10: Depression (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 4

Total number participants: 416

Table O

	SMD	95% CI	I^2	P
All eligible studies $(k = 4)$	29	[48,10]	0%	.59

mean differences

Figure N: Forrest plot all studies Experimental

	Exp	eriment	tal	(Control			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Jasper 2014	0	0	0	0	0	0		Not estimable	
Vallejo 2015	0	0	0	0	0	0		Not estimable	
Hesser 2012	0	0	0	0	0	0		Not estimable	
Lorig 2008	0	0	0	0	0	0		Not estimable	
Ljotsson 2011a	0	0	0	0	0	0		Not estimable	
Naylor 2010	0	0	0	0	0	0		Not estimable	
Moessner 2014	0	0	0	0	0	0		Not estimable	
Kristjánsdóttir 2013a	0	0	0	0	0	0		Not estimable	
Dowd 2015	14.15	1.1	23	14.78	1	27	11.6%	-0.59 [-1.16, -0.02]	
Brattberg 2007	6.7	3.8	25	7.8	4.8	25	12.1%	-0.25 [-0.81, 0.31]	
Trompetter 2015	4.3	3.8	53	5.7	3.6	64	27.9%	-0.38 [-0.74, -0.01]	
Chiauzzi 2010	10.55	12.09	95	12.65	11.42	104	48.4%	-0.18 [-0.46, 0.10]	
Total (95% CI)			196			220	100.0%	-0.29 [-0.48, -0.10]	•
Heterogeneity: Tau ² = I	0.00; Chi	i² = 1.94	. df = 3	(P = 0.5)	59); I² = I	0%			
Test for overall effect: 2				,					-1 -0.5 0 0.5 1
		,	•						Favours [experimental] Favours [control]

Comparison 2: Computer based versus active control (tables P-Y, and figs O-AB)

Outcome 2.1: Symptom intensity (post)

Number of eligible studies reporting the outcome: 11

Total number participants: 1292

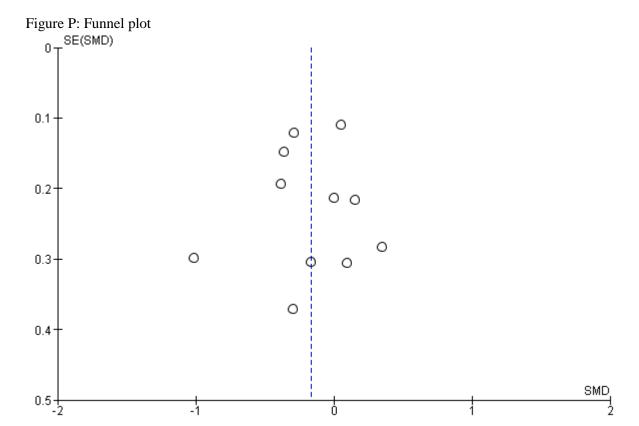
Table P

	SMD	95% CI	I^2	P
All eligible studies $(k = 11)$	16	[35, .02]	56%	.01
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 4)^{*1}$	33	[66, .01]	71%	.002
Low risk attrition bias $(k = 5)$	2	[61, .2]	73%	.005
Low risk reporting bias (k = 3)	26	[44,07]	0%	.38
Low risk performance bias $(k = 5)$	29	[63, .04]	60%	.04
Low risk due to incomplete data extracted $(k = 2)$	60	[-1.3, 0.1]	80%	.03
Low risk detection bias				
Low risk other bias $(k = 8)$	18	[39, .04]	68%	.003
External validity				
Participants recruited from a general (open) population (k = 3)	31	[51,12]	0%	.92
Participants recruited from a clinical (closed) population $(k = 5)$	08	[44, .28]	70%	.01

^{*1 1} study had risk of bias due to dissimilarity at baseline for symptom intensity (Naylor 2008)

Figure O: Forest plot all studies

tudu an Cubana		erimenta			ontrol	T-4-1		Std. Mean Difference	Std. Mean Difference
tudy or Subgroup	Mean		Total	Mean			Weight	IV, Random, 95% CI	IV, Random, 95% CI
aylor 2008	3.3	1.7	26	5.2	2	25	6.3%	-1.01 [-1.60, -0.42]	
ompetter 2015	4.9	2.3	59	5.8	2.4	51	10.2%	-0.38 [-0.76, -0.00]	
otsson 2011a	36.5	12.7	96	41.1	12.4	90	12.5%	-0.36 [-0.65, -0.07]	-
ndersson 2003	2	1.1	17	2.3	0.8	13	4.7%	-0.30 [-1.02, 0.43]	
ear 2015	4.68	1.79	139	5.2	1.8	135	14.0%	-0.29 [-0.53, -0.05]	
aldo 2008	4.2	1.5	24	4.5	2	20	6.2%	-0.17 [-0.76, 0.43]	
veritt 2013		100.78	45	237.44	85.36	43	9.3%	-0.00 [-0.42, 0.42]	
bbott 2009	0	0	0	0	0	0		Not estimable	
/illiams 2010	0	0	0	0	0	0		Not estimable	
/eise 2016	0	0	0	0	0	0		Not estimable	
/ilson 2015	0	0	0	0	0	0		Not estimable	
allejo 2015	0	0	0	0	0	0		Not estimable	
chulz 2007	0	0	0	0	0	0		Not estimable	
lourad 2016	0	0	0	0	0	0		Not estimable	
uehlman 2012	0	0	0	0	0	0		Not estimable	
tröm 2000	0	0	0	0	0	0		Not estimable	
enga 2014	0	0	0	0	0	0		Not estimable	
erlemans 2011	0	0	0	0	0	0		Not estimable	
ee 2014	0	0	0	0	0	0		Not estimable	
orig 2008	0	0	0	0	0	0		Not estimable	
rein 2013	0	0	0	0	0	0		Not estimable	
jótsson 2010	0	0	0	0	0	0		Not estimable	
unt 2015	0	0	0	0	0	0		Not estimable	
jotsson 2011	0	0	0	0	0	0		Not estimable	
lesser 2012	0	0	0	0	0	0		Not estimable	
asper 2014	0	0	0	0	0	0		Not estimable	
owd 2015	0	0	0	0	0	0		Not estimable	
anse 2016	0	0	0	0	0	0		Not estimable	
ear 2013	0	0	0	0	0	0		Not estimable	
lunt 2009	0	0	0	0	0	0		Not estimable	
hiauzzi 2010	0	0	0	0	0	0		Not estimable	
evineni 2005	0	0	0	0	0	0		Not estimable	
avis 2013	0	0	0	0	0	0		Not estimable	
uhrman 2015	0	0	0	0	0	0		Not estimable	
uhrman 2013a	0	0	0	0	0	0		Not estimable	
arpenter 2012	0	0	0	0	0	0		Not estimable	
amerini 2012	0	0	0	0	0	0		Not estimable	
uhrman 2004	0	0	0	0	0	0		Not estimable	
rattberg 2006	Ō	Ō	0	0	Ō	Ō		Not estimable	
uhrman 2013	Ō	Ō	0	0	ō	0		Not estimable	
uhrman 2011	ō	Ö	Ō	Ō	ō	Ō		Not estimable	
ndersson 2002	Ö	Ö	Õ	Ö	Ö	Ŏ		Not estimable	
loessner 2014	3.74	2.09	167	3.64	2.03	161	14.6%	0.05 [-0.17, 0.26]	
e Boer 2014	5.53	2.19	20	5.32	2.18	23	6.1%	0.09 [-0.51, 0.69]	
ristjánsdóttir 2013	54.14	24.06	47		23.37	40	9.2%	0.15 [-0.27, 0.57]	
iva 2014	2.8	24.00	27	2.1	23.31	24	6.8%	0.34 [-0.21, 0.90]	
170 2017	2.0	-	21	2.1	-	44	5.070	0.04 [0.21, 0.30]	
otal (95% CI)			667			625	100.0%	-0.16 [-0.35, 0.02]	•
leterogeneity: Tau²=	0.051 Ch	ni² = 22.60		10 (P = 0	.01): I² =				-2 -1 0 1



Outcome 2.2: Health-related Quality Of Life (post) Number of eligible studies reporting the outcome: 6

Total number participants: 761

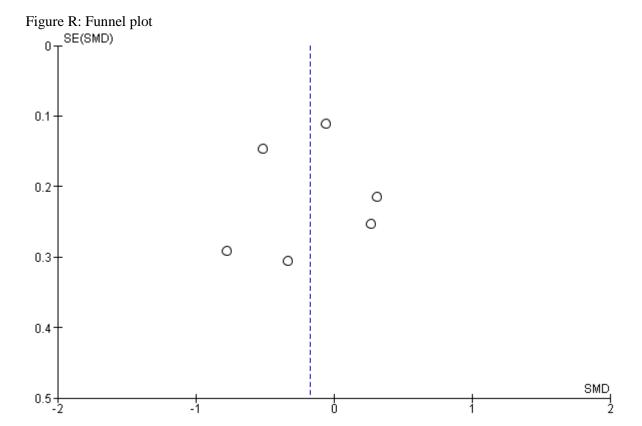
Table Q

	SMD	95% CI	\mathbf{I}^2	P
All eligible studies $(k = 6)$	17	[48, .14]	74%	.002
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 3)$	34	[89, .21]	78%	.01
Low risk attrition bias $(k = 3)$	34	[89, .21]	78%	.01
Low risk reporting bias (k = 1)	/	/	/	/
Low risk performance bias $(k = 2)$	24	[-1.27, .78]	86%	.007
Low risk due to incomplete data extracted $(k = 1)$	/	/	/	/
Low risk detection bias				
Low risk other bias $(k = 5)$	15	[50, .21]	79%	<.001
External validity				
Participants recruited from a general (open) population (k = 1)	/	/	/	/
Participants recruited from a clinical (closed) population (k = 3)	17	[55, .22]	69%	.02

SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

Figure Q: Forest plot all studies

	-	perimental			Control	T-4-1		Std. Mean Difference	Std. Mean Difference
tudy or Subgroup	Mean		Total	Mean		Total		IV, Random, 95% CI	IV, Random, 95% CI
laylor 2008	-48.8	13.4	26	-38.9	11.6	25	13.4%	-0.78 [-1.35, -0.21]	
otsson 2011a	-75.7	17.7	97	-65.7	21.1	94	20.1%	-0.51 [-0.80, -0.22]	 -
e Boer 2014	-53.18	22.69		-45.63	21.58	24	12.8%	-0.34 [-0.93, 0.26]	
oessner 2014	-41.91	10.42	166	-41.25	11.29	158	21.8%	-0.06 [-0.28, 0.16]	
erlemans 2011	0	0	0	0	0	0		Not estimable	
Veise 2016	0	0	0	0	0	0		Not estimable	
tröm 2000	0	0	0	0	0	0		Not estimable	
jotsson 2011	0	0	0	0	0	0		Not estimable	
ndersson 2002	0	0	0	0	0	0		Not estimable	
rompetter 2015	0	0	0	0	0	0		Not estimable	
Villiams 2010	0	0	0	0	0	0		Not estimable	
bbott 2009	0	0	0	0	0	0		Not estimable	
allejo 2015	0	0	0	0	0	0		Not estimable	
Vilson 2015	0	0	0	0	0	0		Not estimable	
lunt 2015	0	0	0	0	0	0		Not estimable	
Ruehlman 2012	0	0	0	0	0	0		Not estimable	
(rein 2013	0	0	0	0	0	0		Not estimable	
lunt 2009	Ō	Ō	Ō	Ō	0	0		Not estimable	
1ourad 2016	Ō	0	0	Ō	0	ō		Not estimable	
ristjánsdóttir 2013	ō	Ō	Ō	Ō	0	0		Not estimable	
chulz 2007	ō	Ö	ō	ō	Ō	Ō		Not estimable	
Riva 2014	ō	Ō	ō	ō	Ō	Ō		Not estimable	
owd 2015	Ö	Ö	Ō	Ö	Ö	0		Not estimable	
jótsson 2010	Ö	Ö	0	Ö	0	0		Not estimable	
ear 2015	0	0	Ö	Ö	0	0		Not estimable	
arpenter 2012	0	0	0	0	0	0		Not estimable	
/arpenter 2012 /lenga 2014	0	0	0	0	0	0		Not estimable	
(aldo 2008	0	0	0	0	0	0		Not estimable	
	0	0	0	0	0	0			
orig 2008	0	0	0	0	0	0		Not estimable	
.ee 2014	_	_						Not estimable	
Davis 2013	0	0	0	0	0	0		Not estimable	
Ruhrman 2015	0	0	0	0	0	0		Not estimable	
Buhrman 2013a	0	0	0	0	0	0		Not estimable	
ndersson 2003	0	0	0	0	0	0		Not estimable	
evineni 2005	0	0	0	0	0	0		Not estimable	
asper 2014	0	0	0	0	0	0		Not estimable	
anse 2016	0	0	0	0	0	0		Not estimable	
hiauzzi 2010	0	0	0	0	0	0		Not estimable	
Buhrman 2011	0	0	0	0	0	0		Not estimable	
Buhrman 2013	0	0	0	0	0	0		Not estimable	
amerini 2012	0	0	0	0	0	0		Not estimable	
Buhrman 2004	0	0	0	0	0	0		Not estimable	
rattberg 2006	0	0	0	0	0	0		Not estimable	
ear 2013	0	0	0	0	0	0		Not estimable	
lesser 2012	-2.12	1.47	33	-2.53	1.55	30	15.0%	0.27 [-0.23, 0.77]	 -
veritt 2013	-67.7	12.6484	45	-71.6	12.3155	43	16.9%	0.31 [-0.11, 0.73]	+•
otal (95% CI)			387			374	100.0%	-0.17 [-0.48, 0.14]	
leterogeneity: Tau² =	0.10: Obi	i² = 19 09 4		P = 0 00	2)· 2 = 7.40			5 [0110, 0114]	
eletogenelly, rau –	0.10, OH	. – 10.50,1	ar — 0 (- 0.00	47, r = 740	70			-2 -1 0 1



Outcome 2.3: Functional interference (post)

Number of eligible studies reporting the outcome: 10 Total number participants: 1097

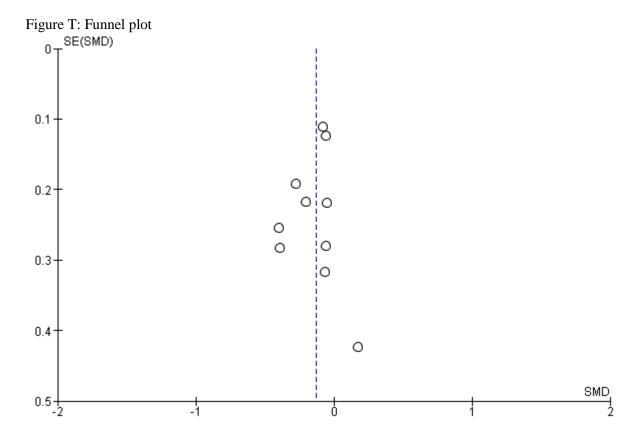
Table R

	SMD	95% CI	I^2	P^1
All eligible studies ($k = 10$)	15	[27,03]	0%	.7
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias (k = 4)	17	[35, .02]	0%	.52
Low risk attrition bias $(k = 4)$	21	[46, .04]	0%	.62
Low risk reporting bias $(k = 3)$	15	[37, .08]	0%	.60
Low risk performance bias $(k = 8)$	13	[28, .03]	0%	.87
Low risk due to incomplete data extracted $(k = 4)$	09	[28, .09]	0%	.75
Low risk detection bias				
Low risk other bias $(k = 7)$	16	[29,04]	0%	.47
External validity				
Participants recruited from a general (open) population (k = 5)	18	[38, .02]	20%	.29
Participants recruited from a clinical (closed) population (k = 3)	1	[29, .08]	0%	.68

SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

Figure S: Forest plot

		eriment			control	_		Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
rompetter 2015	27.2	12	59	32.9	12.2	51	9.8%	-0.47 [-0.85, -0.09]	
lesser 2012	31.94	14.54	33	38.93	19.72	30	5.7%	-0.40 [-0.90, 0.10]	
laylor 2008	50.1	12.1	26	54.9	12.2	25	4.6%	-0.39 [-0.94, 0.17]	
ristjánsdóttir 2013	49.12	19.65	47		18.68	39	7.8%	-0.20 [-0.63, 0.22]	
loessner 2014	11.4	5.67	167	11.87	5.68	159	30.0%	-0.08 [-0.30, 0.13]	
'allejo 2015	56.99	18.17	20		18.57	20	3.7%	-0.06 [-0.68, 0.56]	
(aldo 2008	28.9	13.5	26	29.9	18.5	25	4.7%	-0.06 [-0.61, 0.49]	
ear 2015	11.05	5.63	139	11.36	5.22	123	24.0%	-0.06 [-0.30, 0.19]	
Jasper 2014	26.67	20.75	41	27.7	21.93	43	7.7%	-0.05 [-0.48, 0.38]	
anse 2016	0	0	0	0	0	Ö	1.1 70	Not estimable	
Ruhrman 2004	0	0	Ö	0	0	Ö		Not estimable	
jotsson 2011a	0	0	0	0	0	0		Not estimable	
1enga 2014	0	0	0	0	0	0		Not estimable	
-	0	0	0	0	0	0		Not estimable	
Buhrman 2013a		0							
Carpenter 2012	0		0	0	0	0		Not estimable	
luhrman 2013	0	0	0	0	0	0		Not estimable	
camerini 2012	0	_	0	0	0	_		Not estimable	
Davis 2013	0	0	0	0	0	0		Not estimable	
.orig 2008	0	0	0	0	0	0		Not estimable	
le Boer 2014	0	0	0	0	0	0		Not estimable	
Devineni 2005	0	0	0	0	0	0		Not estimable	
(rein 2013	0	0	0	0	0	0		Not estimable	
hiauzzi 2010	0	0	0	0	0	0		Not estimable	
jotsson 2011	0	0	0	0	0	0		Not estimable	
Hunt 2015	0	0	0	0	0	0		Not estimable	
Villiams 2010	0	0	0	0	0	0		Not estimable	
ear 2013	0	0	0	0	0	0		Not estimable	
Vilson 2015	0	0	0	0	0	0		Not estimable	
3uhrman 2015	0	0	0	0	0	0		Not estimable	
Hunt 2009	0	0	0	0	0	0		Not estimable	
jótsson 2010	0	0	0	0	0	0		Not estimable	
Dowd 2015	0	0	0	0	0	0		Not estimable	
Brattberg 2007	0	0	0	0	0	0		Not estimable	
Brattberg 2006	0	0	0	0	0	0		Not estimable	
.ee 2014	Ō	Ō	ō	Ō	Ō	ō		Not estimable	
.bbott 2009	0	0	Ō	Ō	Ō	Ō		Not estimable	
ndersson 2002	Ö	Ö	Ō	ō	ō	Ö		Not estimable	
Schulz 2007	Ö	Ö	Ō	Ö	Ö	Ö		Not estimable	
Veise 2016	0	0	Ö	Ö	0	Ö		Not estimable	
verse 2010 Everitt 2013	0	0	0	0	0	0		Not estimable	
Buhrman 2011	0	0	0	0	0	0		Not estimable	
	0	0	0	0	0	0			
Ruehlman 2012	_	_	-	_	_	_		Not estimable	
Mourad 2016	0	0	0	0	0	0		Not estimable	
Ström 2000	0	0	0	0	0	0		Not estimable	
Riva 2014	0	0	0	0	0	0		Not estimable	
Derlemans 2011	0	0	0	0	0	0		Not estimable	
Indersson 2003	7.9	5.1	15	7	4.8	9	2.1%	0.17 [-0.65, 1.00]	
Total (95% CI)			573			524	100.0%	-0.15 [-0.27, -0.03]	◆
leterogeneity: Tau² =	0.00; Ct	ni = 6.39	5, df = !	9 (P = 0.	.70); l ² =	0%			-2 -1 0 1
est for overall effect:				•					Favours [experimental] Favours [control]



Outcome 2.4: Catastrophizing (post)
Number of eligible studies reporting the outcome: 10

Total number participants: 946

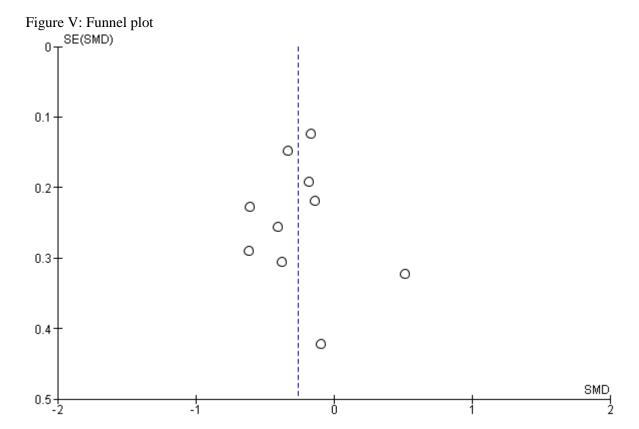
Table S

	SMD	95% CI	I^2	P
All eligible studies ($k = 10$)	26	[41,10]	21%	.25
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 5)$	33	[49,17]	5%	.38
Low risk attrition bias $(k = 4)$	33	[54,13]	0%	.61
Low risk reporting bias $(k = 3)$	16	[35, .02]	0%	.99
Low risk performance bias $(k = 6)$	21	[49, .06]	52%	.07
Low risk due to incomplete data extracted $(k = 4)$	13	[46, .20]	56%	.08
Low risk detection bias				
Low risk other bias $(k = 7)$	29	[42,15]	0%	.51
External validity				
Participants recruited from a general (open) population (k = 5)	19	[36,02]	0%	.93
Participants recruited from a clinical (closed) population (k = 3)	17	[83, .49]	72%	.03

SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardizedmean differences

Figure U: Forest plot all studies

Study or Subgroup	-	erimenta			ontrol	Total		Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean		Total	Mean	SD		Weight	IV, Random, 95% CI	IV, Random, 95% CI
Naylor 2008	6	9.4	25	11.2	7.2	25	6.3%	-0.61 [-1.18, -0.04]	
Kristjánsdóttir 2013		15.67		-63.55		38	9.5%	-0.61 [-1.05, -0.16]	
Hesser 2012	-44.27	9.69	33	-40.47	8.86	30	7.9%	-0.40 [-0.90, 0.10]	
le Boer 2014	12.55		20	17.13		24	5.7%	-0.37 [-0.97, 0.23]	
jotsson 2011a	24.9	16.9	96	30.5	16.8	91	17.8%	-0.33 [-0.62, -0.04]	<u> </u>
Frompetter 2015	13.5	11.3	59	15.6	11.7	51	12.4%	-0.18 [-0.56, 0.19]	
Dear 2015	-26.79	6.69	139	-25.67	6.65	123	21.9%	-0.17 [-0.41, 0.08]	
Jasper 2014	-47.91	11.7	41	-46.31	11.96	43	10.1%	-0.13 [-0.56, 0.29]	
Andersson 2003	17.1	7.5	15	17.9	8.8	9	3.2%	-0.10 [-0.92, 0.73]	-
Williams 2010	0	0	0	0	0	0		Not estimable	
Vilson 2015	0	0	0	0	0	0		Not estimable	
Ström 2000	0	0	0	0	0	0		Not estimable	
Veise 2016	0	0	0	0	0	0		Not estimable	
Derlemans 2011	0	0	0	0	0	0		Not estimable	
Riva 2014	0	0	0	0	0	0		Not estimable	
Ruehlman 2012	0	0	0	0	0	0		Not estimable	
3chulz 2007	0	0	0	0	0	0		Not estimable	
denga 2014	0	0	0	0	0	0		Not estimable	
Moessner 2014	0	0	0	0	0	0		Not estimable	
Mourad 2016	0	0	0	0	0	0		Not estimable	
Carpenter 2012	0	0	0	0	0	0		Not estimable	
Chiauzzi 2010	0	0	0	0	0	0		Not estimable	
Buhrman 2015	0	0	0	0	0	0		Not estimable	
Camerini 2012	0	0	0	0	0	0		Not estimable	
Dear 2013	0	0	0	0	0	0		Not estimable	
Davis 2013	0	0	0	0	0	0		Not estimable	
Brattberg 2006	0	0	0	0	0	0		Not estimable	
Abbott 2009	0	0	0	0	0	0		Not estimable	
Andersson 2002	0	0	0	0	0	0		Not estimable	
Buhrman 2013	0	0	0	0	0	0		Not estimable	
Buhrman 2013a	0	0	0	0	0	0		Not estimable	
Buhrman 2004	0	0	0	0	0	0		Not estimable	
3uhrman 2011	0	0	0	0	0	0		Not estimable	
_ee 2014	0	0	0	0	0	0		Not estimable	
Krein 2013	0	0	0	0	0	0		Not estimable	
(aldo 2008	0	0	0	0	0	0		Not estimable	
_orig 2008 _iátopon 2010	0	0	0	_	0	0		Not estimable	
_jótsson 2010	0	0	0	0	0	0		Not estimable	
_jotsson 2011	0	0	0	0	0	0		Not estimable	
Everitt 2013	0	0	0	0	0	0		Not estimable	
Dowd 2015	0	0	0	0	0	0		Not estimable	
Devineni 2005	0	_	_	_	_	0		Not estimable	
lanse 2016	0	0	0	0	0	0		Not estimable	
Hunt 2015	0	0	0	0	0	0		Not estimable	
Hunt 2009	0	0	0	20.0	0	0	5 200	Not estimable	
/allejo 2015	24.63	5.11	20	20.9	8.7	20	5.2%	0.51 [-0.12, 1.14]	
Total (95% CI)			492			454	100.0%	-0.26 [-0.41, -0.10]	◆
		i ² = 11.4	0.46		0.50				



Outcome 2.5: Depression (post)

Number of eligible studies reporting the outcome: 8

Total number participants: 646

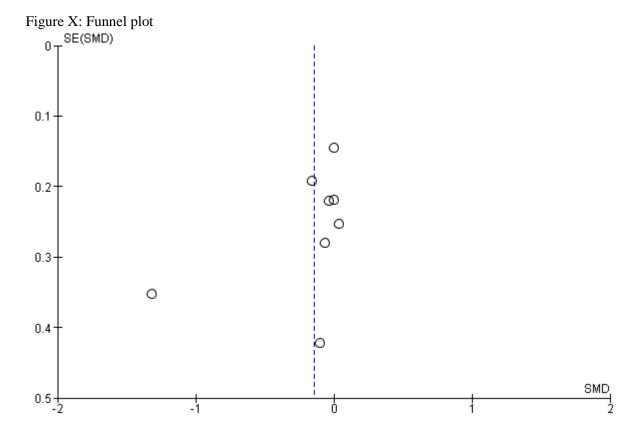
Table T

	SMD	95% CI	\mathbf{I}^2	P
All eligible studies $(k = 8)$	14	[37, .09]	47%	.07
SENSITIVITY ANALYSES				
Internal validity				
Low risk selection bias $(k = 3)$	0	[22, .21]	0%	.98
Low risk attrition bias $(k = 4)$	0	[20, 20]	0%	.99
Low risk reporting bias $(k = 2)$	09	[37, .19]	0%	.58
Low risk performance bias (k = 6)	2	[55, .15]	60%	.03
Low risk due to incomplete data extracted $(k = 2)$	63	[-1.9, .66]	90%	.001
Low risk detection bias				
Low risk other bias $(k = 5)$	03	[2, .14]	0%	.96
External validity				
Participants recruited from a general (open) population (k = 4)	06	[3, .17]	0%	.92
Participants recruited from a clinical (closed) population (k = 1)	/	/	/	/

SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

Figure W: Forest plot all studies

	-	erimen			ontrol	T-4-:		Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean			Mean			Weight	IV, Random, 95% CI	IV, Random, 95% CI
'allejo 2015	11.32	3.33	20	16.38	4.15	20	7.8%	-1.32 [-2.01, -0.63]	_
rompetter 2015	5.1	3.7	59	5.7	3.8	51	15.9%	-0.16 [-0.53, 0.22]	
ndersson 2003	4.5	3.9	15	4.9	3.3	9	5.9%	-0.10 [-0.93, 0.72]	
(aldo 2008	4.3	3	26	4.5	3.2	25	10.6%	-0.06 [-0.61, 0.49]	
(ristjánsdóttir 2013	1.78	2.51	46	1.86	2.07	37	13.9%	-0.03 [-0.47, 0.40]	
ear 2015	0	0	0	0	0	0		Not estimable	
asper 2014	4.41	3.72	41	4.41	3.92	43	14.1%	0.00 [-0.43, 0.43]	
hiauzzi 2010	0	0	0	0	0	0		Not estimable	
amerini 2012	0	0	0	0	0	0		Not estimable	
Villiams 2010	0	0	0	0	0	0		Not estimable	
anse 2016	0	0	0	0	0	0		Not estimable	
owd 2015	0	0	0	0	0	0		Not estimable	
lunt 2015	0	0	0	0	0	0		Not estimable	
Buhrman 2004	0	0	0	0	0	0		Not estimable	
lunt 2009	0	0	0	0	0	0		Not estimable	
loessner 2014	0	0	0	0	0	0		Not estimable	
jotsson 2011a	4.4	4.3	97	4.4	4	94	19.6%	0.00 [-0.28, 0.28]	
bbott 2009	0	0	0	0	0	0		Not estimable	
Veise 2016	0	0	0	0	0	0		Not estimable	
arpenter 2012	0	0	0	0	0	0		Not estimable	
Buhrman 2013a	0	0	0	0	0	0		Not estimable	
avis 2013	0	0	0	0	0	0		Not estimable	
Devineni 2005	0	0	0	0	0	0		Not estimable	
ndersson 2002	0	0	0	0	0	0		Not estimable	
ear 2013	0	0	0	0	0	0		Not estimable	
1ourad 2016	0	0	0	0	0	0		Not estimable	
erlemans 2011	0	0	0	0	0	0		Not estimable	
Buhrman 2011	0	0	0	0	0	0		Not estimable	
.ee 2014	0	0	0	0	0	0		Not estimable	
3rattberg 2006	0	0	0	0	0	0		Not estimable	
(rein 2013	0	0	0	0	0	0		Not estimable	
Vaylor 2008	0	0	0	0	0	0		Not estimable	
Riva 2014	0	0	0	0	0	0		Not estimable	
jótsson 2010	0	0	0	0	0	0		Not estimable	
orig 2008	0	0	0	0	0	0		Not estimable	
Buhrman 2013	0	0	0	0	0	0		Not estimable	
Vilson 2015	0	0	0	0	0	0		Not estimable	
Everitt 2013	0	0	0	0	0	0		Not estimable	
Ruehlman 2012	0	0	0	0	0	0		Not estimable	
jotsson 2011	0	0	0	0	0	0		Not estimable	
Buhrman 2015	0	0	0	0	0	0		Not estimable	
1enga 2014	0	0	0	0	0	0		Not estimable	
le Boer 2014	0	0	0	0	0	0		Not estimable	
Ström 2000	0	0	0	0	0	0		Not estimable	
Schulz 2007	0	0	0	0	0	0	40.400	Not estimable	
lesser 2012	3.48	2.43	33	3.37	3.25	30	12.1%	0.04 [-0.46, 0.53]	
otal (95% CI)			337			309	100.0%	-0.14 [-0.37, 0.09]	•
000000			.14, df					-0.1-1 [-0.01, 0.00]	



Outcome 2.6: Symptom intensity (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 5

Total number participants: 683

Table U

	SMD	95% CI	I^2	P
All eligible studies $(k = 5)$	15	[40, .10]	60%	.04
SMD = Standardized mean diffe	rence, CI	= Confidence in	nterval, P	= P-va

mean differences

Figure Y: Forest plot all studies

	Exp	eriment	tal	C	Control			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Ljotsson 2011a	33.4	13.4	87	39.3	13.3	82	22.5%	-0.44 [-0.75, -0.13]	
Trompetter 2015	4.9	2.3	53	5.8	2.4	50	18.5%	-0.38 [-0.77, 0.01]	
Jasper 2014	24.56	34.09	41	26.96	21.79	43	16.9%	-0.08 [-0.51, 0.34]	
Hesser 2012	0	0	0	0	0	0		Not estimable	
Dowd 2015	0	0	0	0	0	0		Not estimable	
Chiauzzi 2010	0	0	0	0	0	0		Not estimable	
Lorig 2008	0	0	0	0	0	0		Not estimable	
Vallejo 2015	0	0	0	0	0	0		Not estimable	
Naylor 2010	0	0	0	0	0	0		Not estimable	
Brattberg 2007	0	0	0	0	0	0		Not estimable	
Kristjánsdóttir 2013a	56.28	28.24	38	55.85	22.73	45	16.8%	0.02 [-0.42, 0.45]	
Moessner 2014	4.33	2.32	128	4.03	2.54	116	25.3%	0.12 [-0.13, 0.37]	
Total (95% CI)			347			336	100.0%	-0.15 [-0.40, 0.10]	•
Heterogeneity: Tau² = 0	0.05; Chi	= 9.92	, df = 4	(P = 0.0)	$(4); I^2 = I$	60%			, , , , , , , , , , , , , , , , , , ,
Test for overall effect: Z									Favours [experimental] Favours [control]
									i avours (experimental) Favours (control)

Outcome 2.7: HRQOL (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 3

Total number participants: 461

Table V

	SMD	95% CI	I^2	P
All eligible studies $(k = 3)$	04	[37, .30]	66%	.05

mean differences

Study or Subgroup Mean Hesser 2012 -1.84	SD Total	Mean	SD	Total	Moight	BLD I OFN OF	
Hesser 2012 -1.84	4.07			Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
	1.87 31	-2.48	1	30	23.9%	0.42 [-0.09, 0.93]	 •
Ljotsson 2011 -74.9	20.8 87	-68.7	19	82	36.5%	-0.31 [-0.61, -0.01]	
Moessner 2014 -42.28	10.54 122	-41.61	11.81	109	39.7%	-0.06 [-0.32, 0.20]	-
Total (95% CI)	240			221	100.0%	-0.04 [-0.37, 0.30]	•

Outcome 2.8: Functional interference (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 6

Total number participants: 672

Table W

	SMD	95% CI	I^2	P
All eligible studies $(k = 5)$	20	[44, .05]	56%	.05

mean differences

Figure AA: Forrest plot

	Exp	erimen	tal	(Control			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Vallejo 2015	51.52	15.25	20	65.14	17.91	20	9.9%	-0.80 [-1.45, -0.16]	
Trompetter 2015	27.2	12	82	32.9	12.2	79	20.8%	-0.47 [-0.78, -0.16]	
Kristjánsdóttir 2013a	49.24	21.34	38	53.75	17.73	45	15.9%	-0.23 [-0.66, 0.20]	
Jasper 2014	24.56	34.09	41	26.96	21.79	43	16.1%	-0.08 [-0.51, 0.34]	 -
Moessner 2014	11.1	6	128	10.99	6.79	115	23.7%	0.02 [-0.23, 0.27]	+
Hesser 2012	44.26	22.25	31	40.47	21.45	30	13.6%	0.17 [-0.33, 0.67]	-
Total (95% CI)			340			332	100.0%	-0.20 [-0.44, 0.05]	•
Heterogeneity: Tau² = 0 Test for overall effect: 2			•	5 (P = 0	.05); I² =	: 56%		-	-2 -1 0 1 2 Favours [experimental] Favours [control]

Outcome 2.9: Catastrophizing (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 5

Total number participants: 432

Table X

	SMD	95% CI	I^2	P
All eligible studies $(k = 5)$	27	[56, .02]	53%	.08

All eligible studies (k = 5) -.27 [-.56, .02] 53% .08 SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

Figure AB: Forest plot

	Exp	eriment	al	C	ontrol			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Vallejo 2015	17.79	4.41	20	27.33	13.38	20	13.0%	-0.94 [-1.60, -0.28]	
Ljotsson 2011a	23.1	16.8	85	29.4	17.5	81	27.2%	-0.37 [-0.67, -0.06]	
Kristjánsdóttir 2013a	-71.62	14.11	39	-67.05	15.18	42	20.7%	-0.31 [-0.75, 0.13]	
Jasper 2014	-49.14	12.04	41	-48.24	13.07	43	21.1%	-0.07 [-0.50, 0.36]	
Hesser 2012	-37.1	8.11	31	-38.73	8.74	30	18.0%	0.19 [-0.31, 0.69]	 -
Total (95% CI)			216			216	100.0%	-0.27 [-0.56, 0.02]	•
Heterogeneity: Tau² = 1 Test for overall effect: 2				(P = 0.08	i); l² = 5:	3%		-	-2 -1 0 1 2 Favours [experimental] Favours [control]

Outcome 2.10: Depression (6 or more months at follow-up)

Number of eligible studies reporting the outcome: 6

Total number participants: 517

Table Y

	SMD	95% CI	I^2	P
All eligible studies $(k = 6)$	31	[78, .16]	85%	<.001

SMD = Standardized mean difference, CI = Confidence interval, P = P-value for a Chi-square test for Tau; a measure of heterogeneity of standardized mean differences

Figure 29: Forest plot

	Expe	erimen	tal	C	ontrol			Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Vallejo 2015	10.94	2.72	20	18.95	5.03	20	13.2%	-1.94 [-2.71, -1.18]	
Trompetter 2015	4.3	3.8	53	6.2	3.9	50	17.8%	-0.49 [-0.88, -0.10]	
Jasper 2014	4	4.3	31	4.96	4.74	30	16.5%	-0.21 [-0.71, 0.29]	
Kristjánsdóttir 2013a	1.95	2.64	38	2.2	2.82	45	17.4%	-0.09 [-0.52, 0.34]	
Ljotsson 2011a	4.4	4.1	87	4.7	3.9	82	18.8%	-0.07 [-0.38, 0.23]	
Lorig 2008	0	0	0	0	0	0		Not estimable	
Brattberg 2007	0	0	0	0	0	0		Not estimable	
Dowd 2015	0	0	0	0	0	0		Not estimable	
Naylor 2010	0	0	0	0	0	0		Not estimable	
Chiauzzi 2010	0	0	0	0	0	0		Not estimable	
Moessner 2014	0	0	0	0	0	0		Not estimable	
Hesser 2012	5.03	3.36	31	3.07	2.95	30	16.4%	0.61 [0.10, 1.13]	
Total (95% CI)			260			257	100.0%	-0.31 [-0.78, 0.16]	•
Heterogeneity: Tau² = 0).28; Chi	2 = 32.	49, df=	5 (P < I	0.0000	11); 2=	85%		
Test for overall effect: Z	= 1.29 (P = 0.2	20)						Favours [experimental] Favours [control]
									i avouis [experimental] Favouis [control]

Table Z: Characteristics of sub-sets of studies with the 25% highest and 25% lowest SMD estimates

Comparison category	CBI* v	vs. passi	ve contr	ols				CBI vs	. active	
Outcome category	Any	Somatic		$HRQOL^2$		Function	onal	Any	Somatic	
		sympto	ms			interfe	rence		sympto	ms
Definition of study set	All	High 25%	Low 25%	High 25%	Low 25%	High 25%	Low 25%	All	High 25%	Low 25%
Size study set (k)	37	7	7	3	3	7	7	15	2	2
Type of control condition $(k)^{l}$										
Wait-List	14	4	2	2	0	2	2	n.a.	n.a.	n.a.
Usual/standard care	9	1	2	0	1	0	3	n.a.	n.a.	n.a.
Message board	8	2	1	1	0	4	2	n.a.	n.a.	n.a.
Information	6	0	2	0	2	1	0	n.a.	n.a.	n.a.
Other CBI version	n.a.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	8	1	1
No CBI component	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3	1	1
Face-to-face group therapy	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	0	0
Intervention		I							I	
Treatment duration in weeks	10.43,	9.86,	6.71^3 ,	7.00,	6.67,	10.00,	9.14,	10.87,	21.50,	6.00,
(mean, SD)	9.54	7.49	0.95	2.65	1.16	5.86	7.56	6.37	6.36	2.83
Theory/model mentioned (k) ⁴		1					ı			
Traditional CBT* model	14	3	3	2	2	2	2	4	0	0
Traditional CBT with other	3	0	0	0	0	1	0	3	1	0
model(s)										
"Third wave" of CBT approach	5	1	1	1	0	2	1	4	1	1
Traditional CBT inspired by	6	1	1	0	0	1	0	0	0	0
"third wave"										
No reference, author	9	2	2	0	1	1	4	4	0	1
constructed, or other	17	5	4	3	0	2	h	5	h	1
Theory used to select techniques (item 5)	17	Р	4	3	0	2	2	5	2	1
Explicit link between targeted	13	5	3	3	1	2	3	7	2.	1
construct and intervention	13	ľ			1	2		'		1
(items 7-11)										
Behavioral change techniques ((k)					· ·	•			
Antecedents	26	4	7	2	2	6	4	1	0	0
Association	12	4	1	3	1	4	1	2	0	0
Comparison of outcome	24	4	5	2	2	5	2	6	1	1
Feedback and monitoring	23	6	6	2	3	5	4	3	1	1
Goals and planning	24	3	5	1	2	6	3	2	0	1
Identity	28	6	7	3	2	6	4	4	1	1
Natural consequences	30	7	7	3	3	6	5	1	0	0
Regulation	31	5	7	3	2	5	6	2	1	1
Repetition and substitution	33	6	7	3	2	6	5	6	2	1
Social support	26	4	5	2	2	6	2	4	0	2
Total amount of techniques	11.92,	11.14,	14.43,	13.00,	11.67,	13.29,	9.71,	3.13,	5.00,	8.50^{5} ,
(mean, SD)	4.12	3.85	1.40	1.00	7.51	5.27	5.02	3.40	2.83	6.36
Delivery modes					_					
Automated functions 0-3	2.11,	1.71,	2.29,	1.67,	2.00,	2.14,	2.43,	1.07,	1.00,	1.50,
(mean, SD)	0.77	0.49	0.76	0.58	0.00	0.90	0.53	1.03	0.00	0.71
Communicative functions 0-3	0.84,	0.86,	1.00,	1.00,	0.67,	1.00,	0.57,	0.73,	0.50,	0.00,
(mean, SD)	0.65	0.90	0.00	1.00	0.58	0.58	0.53	0.70	0.71	0.00
Supplementary modes 0-5	2.13,	1.86,	2.43,	2.00,	2.00,	2.29,	2.29,	1.13,	0.50,	1.50, 2. <i>12</i>
(mean, SD) Total amount of MODs* 0-11	0.75 5.08,	0.38 4.43^6 ,	0.53 5.71,	0.00 4.67,	0.00 4.67,	0.76 5.43,	<i>0.49</i> 5.29,	0.99 2.93,	0.71 2.00,	2.12 3.00^6 ,
(mean, SD)	5.08, 1.34	4.43°, 1.27	5.71, 1.25	4.67, 1.53	4.67, 0.58	5.43, 1.62	5.29, 1.25	2.93, 1.98	2.00, 0.00	2.83
Provider contact (k)	1.07	1.2/	1.23	1.55	V.20	1.02	1.23	1.70	0.00	2.02
No provider contact	13	3	2	1	1	1	5	2	0	1
No psychologist	4	0	1	0	1	0	0	0	0	0
- Payenologist	т	9	1	٧	1	V	V	V	V	V

Masters level psychologist	8	1	1	1	1	2	2	7	2	0
Clinical training	11	2	3	0	0	4	0	5	0	1
Unclear expertise	1	1	0	1	0	0	0	1	0	0
Completers intervention group		0.52,	0.34^{7} ,	0.58,	0.28,	0.74,	0.39,	0.63,	0.58,	0.70,/
(mean proportion, SD)	0.25	0.14	0.12	0.16	0.06	0.26	0.16	0.24	0.15	
Patients Patients										
Participant age (mean, SD)	45.25,	38.39 ⁸ ,	47.91,	36.53,	47.40,	48.67,	46.79,	47.39,	49.40,	45.75,
	5.53	5.14	2.68	2.25	2.71	1.28	5.12	4.16	4.81	2.19
Female (mean proportion, SD)			0.57,		0.61,	0.70,	0.65,	0.72,	0.80,	0.75,
		0.10	0.26	0.03	0.50	0.19		0.20	0.06	0.35
Completed tertiary education			0.28,	0.51,	0.41,	0.50,	0.36,	0.47,	0.70, /	0.31,
(mean proportion, SD)					0.10	0.09	0.16	0.18		0.11
Participants employed (mean		0.64,	0.74,	0.48	1.00	0.70,	0.68,		0.40, /	0.72, /
proportion, SD)		0.22	0.37	/	/	0.21	0.29	0.12		
Participants on sick leave	0.38,	/	0.42,	/	/	0.54,	0.27,	0.25,	/	0.55, /
(mean proportion, SD)	0.27	0.0 0.011	0.36	7. 60	11501	0.44	0.07	0.18	122.00	12501
Complaint duration in months		93.00^{11} ,		/5.60,	116.84,	125.37,	104.17	122.57,	133.80,	136.94,
(mean, SD)		39.09	40.08	,	17.93	45.78	/ - 2	28.29	/ 	48.41
HADS* depression (mean proportion, <i>SD</i>)	6.95, 1.38	/	6.70, 2. <i>0</i> 2	/	4.90	8.08, 1.47	6.2	5.83 ¹² , 0.52	6.20, /	/
Patient condition (k)	1.30	1	2.02		Y	1.4/	<u> </u>	0.32		
Chronic pain	13	0	3	0	0	4	3	4	2	0
	4	0	1	0	0	0	1	2	0	1
Chronic (low) back pain		<u> </u>	_							1
Fibromyalgia/ chronic	4	0	0	0	0	1	0	3	0	1
widespread pain Headache	2	1	0	0	0	0	1	1	0	0
			~	0	-	0	1		~	_
Chronic fatigue	1	1	0	0	0	0	0	0	0	0
Irritable Bowel Syndrome	6	4	1	3	1	0	0	2	0	0
Interstitial cystitis	1	1	0	0	1	0	1	0	0	0
Non-cardiac chest pain	1	0	0	0	0	0	0	0	0	0
Tinnitus	5	0	2	0	1	2	1	3	0	0
Computer literacy selection crit	Computer literacy selection criteria (k)									
Implicit	7	4 ¹³	1	3	1	0	0	3	0	1
Explicit (able to use required	27	1	6	0	1	7	6	11	2	0
technology)										
Requires other platform or run-	3	2	0	0	1	0	1	1	0	1
in period										

Comment: table only includes outcomes reported in 10 or more studies, and for which heterogeneity in pooled SMDs was statistically significant and I^2 more than 40%.

Treatment duration: subsequent sub-group analyses distinguished between studies with a duration of up to 6 weeks, 7-10 weeks, or more than 10 weeks.

^{*}Abbreviations: CBI = Computer-based intervention, HRQOL = Health-related quality of life, N.A. = Not applicable, / = no data, CBT = Cognitive Behavioral Therapy, BCT = Behavioral Change Technique, MOD = Mode of Delivery, HADS = Hospital Anxiety and Depression Scale.

¹ Sub-groups for type of control were made in accordance with the categories in the table.

 $^{^{2}}$ Two markedly small studies were in the set of studies with high post-treatment SMDs for HRQOL (k = 3). Replacement of these studies by two other studies with relatively high SMDs did not affect the selection of potentially distinctive characteristics for sub-group analysis. 3 Treatment duration: subsequent sub-group analyses distinguished between studies with a duration of up to 6 weeks, 7-10 weeks, or more

 $^{^4}$ Sub-groups for "use of theory" are: no CBT model, traditional CBT, 3^{rd} wave model (Mindfulness-based or Acceptance and commitment therapy), or 3^{rd} wave inspired.

⁵ Number of BCTs sub-groups are: 0 or unclear, 1-3, more than 3

⁶ Number of MODs sub-groups are: (for intervention versus passive controls) 0-4, 5, or more than 5, and (for intervention versus active controls) 0-2, or more than 2. Number of automated, communicative, supplementary modes groups are: 0, 1, and more than 1.

⁷ Compliance: 50% of intervention group treatment completers was the cut-off point used for sub-group analyses.

⁸ Average participant age groups are: up to 42.5, between 42.5 and 49, or more than 49 years of age.

⁹ Average female proportion groups are: less than 2/3, between 2/3 and 4/5, and more than 4/5.

¹⁰ Average proportion of participants with tertiary education groups are: up to 40%, and more than 40%.

¹¹ Symptom duration groups are: up to 100 months on average, and more than 100 months on average.

¹² Average (baseline) HADS scores were categorized as: up to 7 (probably not depressed), or higher than 7 (depression is probable)

¹³ Computer literacy selection criteria groups are: explicit vs. other.

Table AA: Overview of sub-group analyses

		CBI vs. active			CBI vs. active
Outcome category	Sub-group definition	Somatic symptoms	HRQOL ²	Functional interference	Somatic symptoms
Type of control condition within passive controls	 Waiting list Usual/standard care Message board Information Other CBI version No CBI component Face-to-face group therapy 	Chi ² = 12.79, (P = 0.005), I ² = 76.5%	Chi ² = 19.37, (P = 0.0002), I ² = 84.5%	Chi ² = 22.73, (P < 0.0001), I ² = 86.8%	
Intervention	T				
Treatment duration in weeks	- <= 6 weeks	$Chi^2 = 1.29,$		$Chi^2 = 5.51,$	$Chi^2 = 2.08$
(mean, SD)	- 7-10 weeks - >10 weeks	(P = 0.52), $I^2 = 0\%$		(P = 0.06), $I^2 = 63.7\%$	(P = 0.35), $I^2 = 3.6\%$
Theory/model mentioned	 Traditional CBT* model Traditional CBT with other model(s) "Third wave" of CBT approach Traditional CBT inspired by "third wave No reference, author constructed, or other 	,,,	Chi ² = 8.10, (P = 0.04), I ² = 63.0%	Chi ² = 1.45, (P = 0.69), I ² = 0%	
Theory used to select			$Chi^2 = 5.79,$		
techniques (item 5)			(P = 0.02), $I^2 = 82.7\%$		
Explicit link between targeted construct and intervention (items 7-11)			Chi ² = 1.90, (P = 0.17), $I^2 = 47.5\%$		
Antecedents		Chi ² = 1.68, (P = 0.19), $I^2 = 40.6\%$		Chi ² = 1.13, (P = 0.29), I ² = 11.5%	
Association (i.e. 7.7 exposure)	- Present - Not present	Chi ² = 6.26, (P = 0.01), I ² = 84.0%	Chi ² = 2.24, (P = 0.13), I ² = 55.4%	Chi ² = 3.72, (P = 0.05), I ² = 73.1%	
Comparison of outcome				Chi ² = 1.99, (P = 0.16), $I^2 = 49.7\%$	
Goals and planning				Chi ² = 0.95, (P = 0.33), I ² = 0%	
Identity				Chi ² = 3.60, (P = 0.06), $I^2 = 72.3\%$	
Repetition and substitution					Chi ² = 0.59, (P = 0.44), I ² = 0%
Social support				Chi ² = 3.62, (P = 0.06), I ² = 72.4%	Chi ² = 1.76, (P = 0.18), I ² = 43.3%
Total amount of techniques (versus active controls)	- 0 or unclear - 1-3 - > 3				Chi ² = 0.97 (P = 0.62), $I^2 = 0\%$
Automated functions	- 0 - 1 - >1				Chi ² = 0.86, (P = 0.35), I ² = 0%
Communicative functions	- 0 - 1 - >1		Chi ² = 2.87, (P = 0.24), I ² = 30.4%		1 - 070
Supplementary modes	- 0 - 1		20.170		Chi ² = 2.13

	- >1				$(P = 0.34),$ $I^2 = 6.2\%$
Peer-to-peer access	- Present - Not present		Chi ² = 1.96, (P = 0.16), I ² = 48.9%		
Total amount of MODs (versus passive controls)	- 5 - > 5	Chi ² = 6.34, (P = 0.04), $I^2 = 68.4\%$			
Total amount of MODs (versus active controls)	- 0-2 - > 2				Chi ² = 5.11, (P = 0.02), I ² = 80.4%
Provider presence and training level	No psychologist Other Masters level psychologist Clinical training			Chi ² = 9.84, (P = 0.02), I ² = 69.5%	
Completers intervention group	- < 50% - =< 50%	Chi ² = 4.55, (P = 0.03) $I^2 = 78.0\%$		Chi ² = 2.30, (P = 0.13), I ² = 56.6%	
Participant age (years)	- => 42.5 & =< 49		Chi ² = 15.11, (P = 0.0001), I ² = 93.4%		
Female (mean proportion, SD)	- => 2/3 & =< 4/5		Chi ² = 4.30, (P = 0.12), I ² = 53.5%		
Completed tertiary education	- >40%	Chi ² = 5.46 (P = 0.02), I ² = 81.7%	>10		
Participants on sick leave	- < 50% - => 50%			Chi ² = 3.73, (P = 0.05), I ² = 73.2%	
Complaint duration in months	- 100 months or more	Chi ² = 2.13, (P = 0.14), $I^2 = 53.0\%$			
HADS* depression	- =<7 - >7			Chi ² = 5.32, (P = 0.02), I ² = 81.2%	
Patient condition	 Chronic (low) back pain (low) bac	(P = 0.03), 1 ² = 55.2%	Chi ² = 8.36, (P = 0.08), I ² = 52.2%		
Computer literacy selection criteria	- Other (able to use	Chi ² = 4.79, (P = 0.03), I ² = 79.1%			
Symbols and abbreviations: CRI	I = Computer-based Intervention	HROOI – He	l alth Related Or	luality of Life Chi	l 2 – Chi-Square te

Symbols and abbreviations: CBI = Computer-based Intervention, HRQOL = Health Related Quality of Life, Chi² = Chi-Square test statistic, P = P-Value, I² = Heterogeneity statistic, CBT = Cognitive Behavioural Therapy