Online Data Supplement

DS1: PRISMA Search strategy

PRISMA, database searches only:

9685 records identified through database searching

6486 records after duplicates removed

1.1 Databases: Embase, Medline, PreMedline, PsycINFO
Interface: OVID SP

Search Strategy

#	searches
1	"explode schizophrenia"/ or (psychosis$ or psychotic$).hw.
2	1 use emez
3	paranoid disorders/ or exp psychotic disorders/ or exp schizophrenia/ or "schizophrenia and disorders with psychotic features"/
4	3 use mesz, prem
5	exp psychosis/ or exp schizophrenia/
6	5 use psyh
7	((chronic$ or serious$ or sever$) adj2 mental$ adj2 (ill$ or disorder$)).ti,ab,hw,id. or (delusional disorder$ or hebephreni$ or oligophreni$ or psychoses or psychosis or psychotic$ or schizo$).ti,ab,id.
8	akathisia/ or dyskinesia/ or neuroleptic malignant syndrome/
9	8 use emez
10	akathisia, drug-induced/ or dyskinesias/ or dyskinesia, drug-induced/ or neuroleptic malignant syndrome/
11	10 use mesz, prem
12	akathisia/ or exp dyskinesia/ or neuroleptic malignant syndrome/
13	12 use psyh
14	(akathisi$ or acathisi$ or (neuroleptic$ and ((malignant and syndrome) or (movement adj2 disorder))) or (tardiv$ and dyskine$)).ti,ab,id. or ((parkinsoni$ or neuroleptic induc$).ti,ab,id. not (parkinson$ and disease).ti.)
15	or/2,4,6-7,9,11,13-14
16	exp self care/ or self evaluation/
17	16 use emez
18	self administration/ or self care/ or self-help groups/ or self medication/
19	18 use mesz, prem
20	self care skills/ or self evaluation/ or exp self help techniques/ or self monitoring/ or self regulation/ or self reinforcement/

21 20 use psyh

22 ((self adj (administer$ or assess$ or attribut$ or care or change or directed or efficacy or help$ or guide$ or instruct$ or manag$ or medicat$ or monitor$ or regulat$ or reinforc$ or re inforc$ or support$ or technique$ or therap$ or train$ or treat$)) or selfadminister$ or selfassess$ or selfattribut$ or selfcare or selfchange or selfdirected or selfefficacy or selfhelp$ or selfguide$ or selfinstruct$ or selfmanag$ or selfmedicat$ or selfmonitor$ or selfregulat$ or selfreinforc$ or self re inforc$ or selfsupport$ or selftechnique$ or selftherap$ or selftrain$ or selftreat$).ti,ab.

23 (expert patient$ or (hearing voices adj2 (group$ or network$ or support$)) or (minimal adj (contact or guidance)) or helpseek$ or (help$ adj2 seek$) or (mutual adj (aid$ or help or support$)) or recovery model$ or smart recovery).ti,ab.

24 health education/ or health literacy/ or health promotion/ or patient education/ or psychoeducation/

25 24 use emez

26 exp consumer health information/ or health education/ or health knowledge, attitudes, practice/ or health promotion/ or patient education as topic.sh.

27 26 use mesz, prem

28 client education/ or health education/ or health knowledge/ or health literacy/ or health promotion/ or psychoeducation/

29 28 use psyh

30 (booklet$ or brochure$ or leaflet$ or pamphlet$ or poster$ or psychoeducat$ or psycho educat$ or workbook$ or work book$ or ((adult$ or client$ or consumer$ or health or inpatient$ or outpatient$ or participant$ or patient$ or service user$) adj2 (educat$ or focus$ or information$ or knowledge or learn$ or literac$ or promot$ or taught or teach$)) or empower$ or ((oral or printed or written) adj3 (material$ or inform$))).ti,ab.

31 adaptive behavior/

32 31 use emez

33 exp adaptation, psychological/

34 33 use mesz, prem

35 adaptive behavior/

36 35 use psyh

37 (((behav$ or psychologic$) adj3 (adapt$ or adjust$)) or cope or copes or coping).ti,ab.

38 patient participation/

39 38 use emez

40 exp consumer participation/

41 40 use mesz, prem

42 client participation/

43 42 use psyh

44 ((adult$ or client$ or consumer$ or inpatient$ or outpatient$ or participant$ or patient$ or service user$) adj2 (involv$ or participat$)).ti,ab.

45 or/17,19,21-23,25,27,29-30,32,34,36-37,39,41,43-44

46 exp "clinical trial (topic)"/ or exp clinical trial/ or crossover procedure/ or double blind procedure/ or placebo/ or randomization/ or random sample/ or single blind procedure/

47 46 use emez

48 exp clinical trial/ or cross-over studies/ or double-blind method/ or placebos/ or random allocation/ or "randomized controlled trials as topic"/ or single-blind method/

49 48 use mesz, prem

50 (clinical trials or placebo or random sampling).sh,id.

51 50 use psyh

52 (clinical adj2 trial$).ti,ab.

53 (crossover or cross over).ti,ab.

54 (((single$ or doubl$ or trebl$ or tripl$) adj2 blind$) or mask$ or dummy or doubleblind$ or singleblind$ or trebleblind$ or tripleblind$).ti,ab.

55 (placebo$ or random$).ti,ab.

56 treatment outcome$.md. use psyh

57 animals/ not human$.mp. use emez

58 animal$/ not human$/ use mesz, prem

59 (animal not human).po. use psyh

60 (or/47,49,51-56) not (or/57-59)

61 15 and 45 and 60

1.2. Database: CENTRAL Search strategy

Interface: Wiley

Search strategy:

#1 mesh descriptor: [paranoid disorders] single term only

#2 mesh descriptor: [schizophrenia and disorders with psychotic features] single term only

#3 mesh descriptor: [psychotic disorders] explode all trees

#4 mesh descriptor: [schizophrenia] explode all trees

#5 ((chronic* or sever*) and mental* and (ill* or disorder*)):ti,ab,kw

#6 ("delusional disorder*" or hebephreni* or oligophreni* or psychoses or psychosis or psychotic* or schizo*):ti,ab

#7 mesh descriptor: [akathisia, drug-induced] single mesh term

#8 mesh descriptor: [dyskinesias] single mesh term

#9 mesh descriptor: [dyskinesia, drug-induced] single mesh term

#10 mesh descriptor: [neuroleptic malignant syndrome] single mesh term

#11 (akathisi* or acathisi* or (neuroleptic* and ((malignant and syndrome) or (movement n2 disorder))) or (tardiv* and dyskine*)):ti

#12 (akathisi* or acathisi* or (neuroleptic* and ((malignant and syndrome) or (movement n2 disorder))) or (tardiv* and dyskine*)):ab

#13 mesh descriptor: [movement disorders] explode all trees

#14 (parkinsoni* or "neuroleptic induc*"):ti,ab,kw

#15 (parkinson* and disease):ti

#16 #14 not #15

#17 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #16

#18 mesh descriptor: [self administration] single mesh term

#19 mesh descriptor: [self care] single mesh term

#20 mesh descriptor: [self medication] single mesh term

#21 mesh descriptor: [self-help groups] single mesh term

#22 ((self near/1 (administer* or assess* or attribut* or care or change or directed or efficacy or help* or guide* or instruct* or manag* or medicat* or monitor* or regulat* or reinforc* or "re inforc*" or support* or technique* or therap* or train* or treat*)) or selfadminister* or selfassess* or selfattribut* or selfcare or selfchange or selfdirected or selfefficacy or selfhelp* or selfguide* or selfinstruct* or selfmanag* or selfmedicat* or selfmonitor* or selfregulat* or selfreinforc* or "self re inforc*" or selfsupport* or selftechnique* or selftherap* or selftrain* or selftreat*):ti

#23 ((self near/1 (administer* or assess* or attribut* or care or change or directed or efficacy or help* or guide* or instruct* or manag* or medicat* or monitor* or regulat* or reinforc* or "re inforc*" or support* or technique* or therap* or train* or treat*)) or selfadminister* or selfassess* or selfattribut* or selfcare or selfchange or selfdirected or selfefficacy or selfhelp* or selfguide* or selfinstruct* or selfmanag* or selfmedicat* or selfmonitor* or selfregulat* or selfreinforc* or "self re inforc*" or selfsupport* or selftechnique* or selftherap* or selftrain* or selftreat*):ab

#24 ("expert patient*" or ("hearing voices" near/2 (group* or network* or support*)) or (minimal near/1 (contact or guidance)) or helpseek* or (help* near/2 seek*) or (mutual near/1 (aid* or help or support*)) or "recovery model*" or "smart recovery"):ti

#25 ("expert patient*" or ("hearing voices" near/2 (group* or network* or support*)) or (minimal near/1 (contact or guidance)) or helpseek* or (help* near/2 seek*) or (mutual near/1 (aid* or help or support*)) or "recovery model*" or "smart recovery"):ab

#26 mesh descriptor: [consumer health information] explode all trees

#27 mesh descriptor: [health education] single mesh term

#28 mesh descriptor: [health knowledge, attitudes, practice] single mesh term

#29 mesh descriptor: [health promotion] single mesh term

#30 mesh descriptor: [patient education as topic] single mesh term

#31 (booklet* or brochure* or leaflet* or pamphlet* or poster* or psychoeducat* or "psycho educat*" or workbook* or "work book*" or ((adult* or client* or consumer* or health or inpatient* or outpatient* or participant* or patient* or "service user*") near/2 (educat* or focus* or information* or knowledge or learn* or literac* or promot* or taught or teach*)) or empower* or ((oral or printed or written) near/3 (material* or inform*))):ti

#32 (booklet* or brochure* or leaflet* or pamphlet* or poster* or psychoeducat* or "psycho educat*" or workbook* or "work book*" or ((adult* or client* or consumer* or health or inpatient* or outpatient* or participant* or patient* or "service user*") near/2 (educat* or

focus* or information* or knowledge or learn* or literac* or promot* or taught or teach*)) or empower* or ((oral or printed or written) near/3 (material* or inform*))):ab

#33 mesh descriptor: [adaptation, psychological] single mesh term

#34 (((behav* or psychologic*) near/5 (adapt* or adjust*)) or cope or copes or coping):ti

#35 (((behav* or psychologic*) near/5 (adapt* or adjust*)) or cope or copes or coping):ab

#36 mesh descriptor: [consumer participation] single mesh term

#37 ((adult* or client* or consumer* or inpatient* or outpatient* or participant* or patient* or "service user*") near/2 (involv* or participat*)):ti

#38 ((adult* or client* or consumer* or inpatient* or outpatient* or participant* or patient* or "service user*") near/2 (involv* or participat*)):ab

#39 #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38

#40 #17 and #39

1.3. Database: CINAHL Search strategy

Interface: Ebsco Host

Search strategy:

s30	s9 and s19 and s29
s29	s28 not s27
s28	s20 or s21 or s22 or s23 or s24 or s25 or s26
s27	(mh "animals") not (mh "human")
s26	(pt "clinical trial") or (pt "randomized controlled trial")
s25	ti (placebo* or random*) or ab (placebo* or random*)
s24	ti (single blind* or double blind* or treble blind* or mask* or dummy* or singleblind* or doubleblind* or trebleblind*) or ab (single blind* or double blind* or treble blind* or mask* or dummy* or singleblind* or doubleblind* or trebleblind*)
s23	ti (crossover or cross over) or ab (crossover or cross over)
s22	ti clinical n2 trial* or ab clinical n2 trial*
s21	(mh "crossover design") or (mh "placebos") or (mh "random assignment") or (mh "random sample")
s20	(mh "clinical trials+")
s19	s10 or s11 or s12 or s13 or s14 or s15 or s16 or s17 or s18
s18	ti (((adult* or client* or consumer* or inpatient* or outpatient* or participant* or patient* or service user*) n2 (involv* or participat*))) or ab (((adult* or client* or consumer* or inpatient* or outpatient* or participant* or patient* or service user*) n2 (involv* or participat*)))

s17	(mh "consumer participation")
s16	ti ((((behav* or psychologic*) n3 (adapt* or adjust*)) or cope or copes or coping)) or ab ((((behav* or psychologic*) n3 (adapt* or adjust*)) or cope or copes or coping))
s15	(mh "adaptation, psychological")
s14	ti ((booklet* or brochure* or leaflet* or pamphlet* or poster* or psychoeducat* or "psycho educat*" or workbook* or "work book*" or ((adult* or client* or consumer* or health or inpatient* or outpatient* or participant* or patient* or "service user*") n2 (educat* or focus* or information* or knowledge or learn* or literac* or promot* or taught or teach*)) or empower* or ((oral or printed or written) n3 (material* or inform*)))) or ab ((booklet* or brochure* or leaflet* or pamphlet* or poster* or psychoeducat* or "psycho educat*" or workbook* or "work book*" or ((adult* or client* or consumer* or health or inpatient* or outpatient* or participant* or patient* or "service user*") n2 (educat* or focus* or information* or knowledge or learn* or literac* or promot* or taught or teach*)) or empower* or ((oral or printed or written) n3 (material* or inform*))))
s13	(mh "consumer health information") or (mh "health education") or (mh "patient discharge education") or (mh "patient education") or (mh "patient education (iowa nic) (non-cinahl)") or (mh "mental health promotion (saba ccc)") or (mh "health promotion") or (mh "health promotion (saba ccc)") or (mh "health knowledge") or (mh "health knowledge (iowa noc) (non-cinahl)") or (mh "health knowledge and behavior (iowa noc) (non-cinahl)") or (mh "knowledge: health behaviors (iowa noc)")
s12	ti (("expert patient*" or ("hearing voices" n2 (group* or network* or support*)) or (minimal adj (contact or guidance)) or helpseek* or (help* n2 seek*) or (mutual n1 (aid* or help or support*)) or "recovery model*" or "smart recovery")) or ab (("expert patient*" or ("hearing voices" n2 (group* or network* or support*)) or (minimal adj (contact or guidance)) or helpseek* or (help* n2 seek*) or (mutual n1 (aid* or help or support*)) or "recovery model*" or "smart recovery"))
s11	ti (((self n1 (administer* or assess* or attribut* or care or change or directed or efficacy or help* or guide* or instruct* or manag* or medicat* or monitor* or regulat* or reinforc* or re inforc* or support* or technique* or therap* or train* or treat*)) or selfadminister* or selfassess* or selfattribut* or selfcare or selfchange or selfdirected or selfefficacy or selfhelp* or selfguide* or selfinstruct* or selfmanag* or selfmedicat* or selfmonitor* or selfregulat* or selfreinforc* or "self re inforc*" or selfsupport* or selftechnique* or selftherap* or selftrain* or selftreat*)) or ab (((self n1 (administer* or assess* or attribut* or care or change or directed or efficacy or help* or guide* or instruct* or manag* or medicat* or monitor* or regulat* or reinforc* or re inforc* or support* or technique* or therap* or train* or treat*)) or selfadminister* or selfassess* or selfattribut* or selfcare or selfchange or selfdirected or selfefficacy or selfhelp* or selfguide* or selfinstruct* or selfmanag* or selfmedicat* or selfmonitor* or selfregulat* or selfreinforc* or "self re inforc*" or selfsupport* or selftechnique* or selftherap* or selftrain* or selftreat*))
s10	(mh "self administration") or (mh "self care") or (mh "self care agency") or (mh "self medication")
s9	s1 or s2 or s3 or s4 or s5 or s8
s8	s6 not s7
s7	ti parkinson* and disease
s6	ti (parkinsoni* or "neuroleptic induc*") or ab (parkinsoni* or "neuroleptic induc*")
s5	ti (akathisi* or acathisi* or (neuroleptic* and ((malignant and syndrome) or (movement n2 disorder))) or (tardiv* and dyskine*)) or ab (akathisi* or acathisi* or (neuroleptic* and ((malignant and syndrome) or (movement n2 disorder))) or (tardiv* and dyskine*))
s4	(mh "akathisia, drug-induced") or (mh "dyskinesia, drug-induced") or (mh "dyskinesias") or (mh "movement disorders+") or (mh "neuroleptic malignant syndrome")

s3	ti ("delusional disorder*" or hebephreni* or oligophreni* or psychoses or psychosis or psychotic* or schizo*) or ab ("delusional disorder*" or hebephreni* or oligophreni* or psychoses or psychosis or psychotic* or schizo*)
s2	ti (((chronic* or sever*) and mental* and (ill* or disorder*))) or ab (((chronic* or sever*) and mental* and (ill* or disorder*))) or mw (((chronic* or sever*) and mental* and (ill* or disorder*)))
s1	(mh "paranoid disorders") or (mh "psychotic disorders") or (mh "schizoaffective disorder") or (mh "schizophrenia+")

DS2 Summary of self-management interventions: A typology

In an attempt to develop a preliminary typology of self-management interventions, the common elements (largely dictated by the review's inclusion criteria and previous reviews of self-management (Mueser et al., 2002) as well as distinguishing features of each intervention were synthesised into 4 broad categories of self-management interventions .

Proposed Intervention Types	Essential Components /Inclusion criteria				Other defining characteristics			
	Psycho-education	Relapse Prevention	Coping skills	Medication Management	Personal Recovery Goals	Peer Delivered	Lifestyle Regulation	Mindfulness
1.1 Illness management & compliance	✓✓	✓✓	✓	✓✓	✓	*	-	-
1.2 Bipolar specific illness management	✓✓	✓✓	✓	✓✓	✓	*	✓✓	-
2. Transition to community from ward	✓✓	✓✓	✓	✓✓	-	-	-	-
3. Coping oriented	✓	✓	✓✓	✓	✓	-	-	✓
4. Recovery oriented	✓	✓✓	✓	✓	✓✓	✓✓	-	-

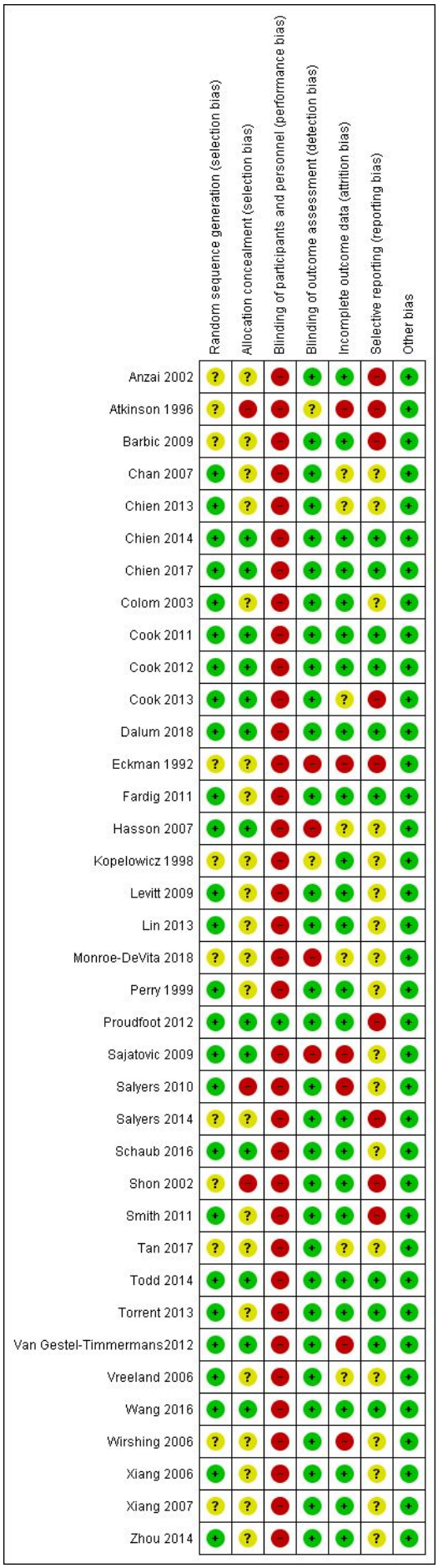
Note: ✓✓Indicates predominant focus of intervention types.
✓ Indicates component is present but not the primary focus of this type of intervention
* Only one study in category utilised peer facilitation (Proudfoot et al., 2012; Salyers et al., 2010)

DS3 Outcomes Measures Used in Included Trials

Outcome	Measure
Total Symptoms	Positive and Negative Syndrome Scale (PANSS) Brief Psychiatric Rating Scale (BPRS) Psychosis Evaluation Tool for Common Use by Caregivers (PECC) Internal State Scale (ISS)
Depression & Anxiety	Brief Symptom Inventory (BSI)- Depression Psychosis Evaluation Tool for Common Use by Caregivers (PECC)-Depression-anxiety Brief Psychiatric Rating Scale (BPRS)- Depression- anxiety Goldberg Anxiety and Depression Scale (GADS)- Depression Hamilton Depression Rating Scale (HAM-D) Hamilton Depression Rating Scale - 6 item (HAM-6) Montgomery and Asberg Depression Rating Scale (MADRS) Psychological General Well-Being Scale (PGWB)- Anxiety Global Assessment of Functioning–Disability Scale (GAF-DIS) Structured Clinical Interview (SCID) (DSM-III-R)- Depression
Functioning	REHAB scale; Social Functioning Scale (SFS); Specific Level of Functioning scale (SLOF); Global Assessment of Functioning (GAF); Social Adaptation Self-Evaluation Scale (SASS); Social Disability Screening Schedule (SDSS); Social Functioning Interview; Work and Social Adjustment Scale (WSAS); Global Assessment Scale (GAS)
Quality of Life (QoL)	Quality of Life Scale (QOLS); Quality of Life Index; Quality of Life Scale- Abbreviated (QLS-A); Quality of Life Scale (QLS); Quality of Life in BD scale (Brief version) (QoL.BD-Brief); Manchester Short Assessment of Quality of Life; Psychological General Well-Being Scale (PGWB); WHO Quality of Life - BREF: Environmental
Recovery	Recovery Assessment Scale (RAS); Illness Management and Recovery Scales (IMRS); Recovery Attitudes Questionnaire (RAQ); Bipolar Recovery Questionnaire (BRQ); Questionnaire about the Process of Recovery (QPR) Mental Health Recovery Measure (MHRM) Empowerment Scale; Dutch Empowerment Scale; International Association of Psychosocial Rehabilitation Services (IAPSRS Toolkit); Adult State Hope Scale Herth Hope Index; Coping Efficacy Scale; Self- Efficacy Measure; Self-Efficacy for Managing Chronic Disease Scale, Brief Version (SEMCD); Mental Health Confidence Scale (MHCS)

DS4

Full Risk of Bias Assessment



DS5 Forest Plots of Main Analyses Reported in Table 5 (Main Manuscript)

5.1 Total Symptoms

Figure 5.1.1: Forest plot of total symptoms at end of treatment

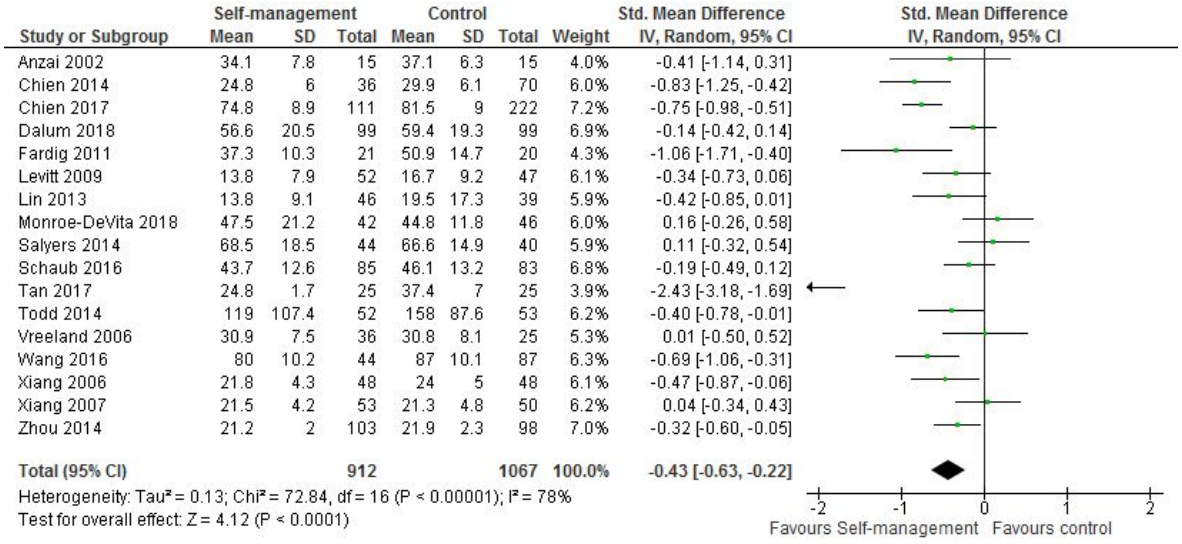
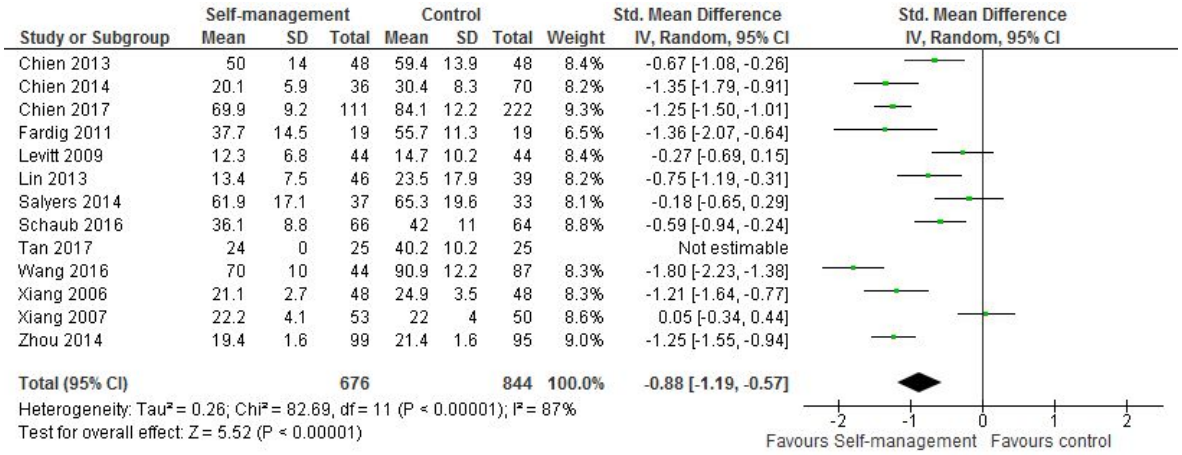
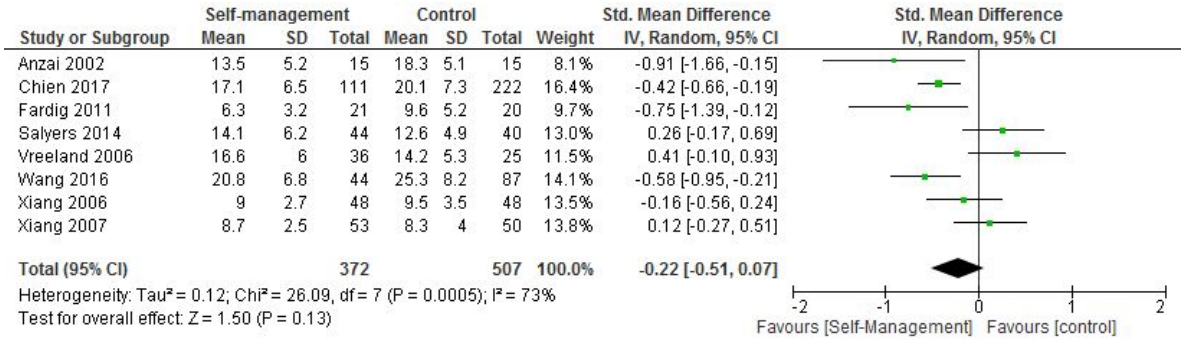


Figure 5.1.2: Forest plot of total symptoms at follow up



5.1.3 Positive Symptoms: End of Treatment



5.1.4 Positive Symptoms: Follow Up

5.1.5 Negative Symptoms: End of Treatment

5.1.6 Negative Symptoms: Follow Up

Figure 5.1.7 Forest plot of depression and anxiety symptoms post treatment

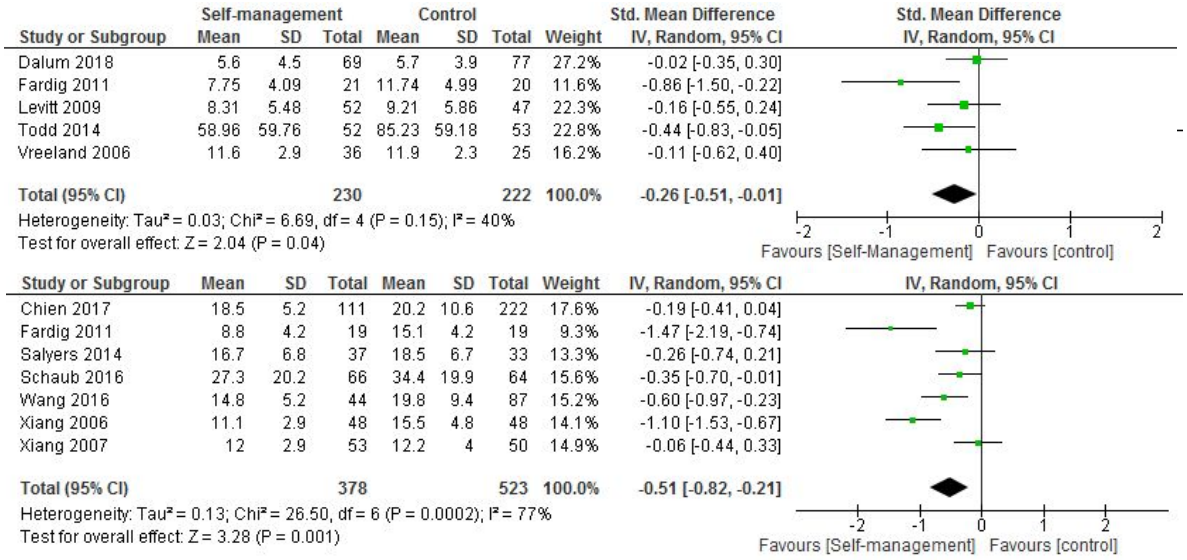
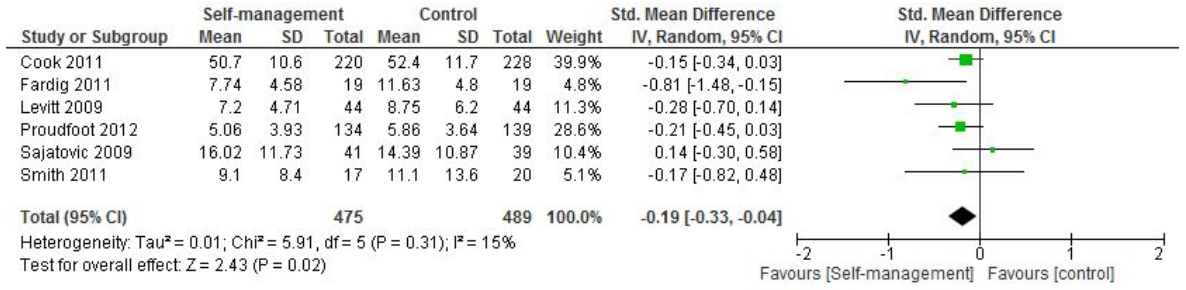
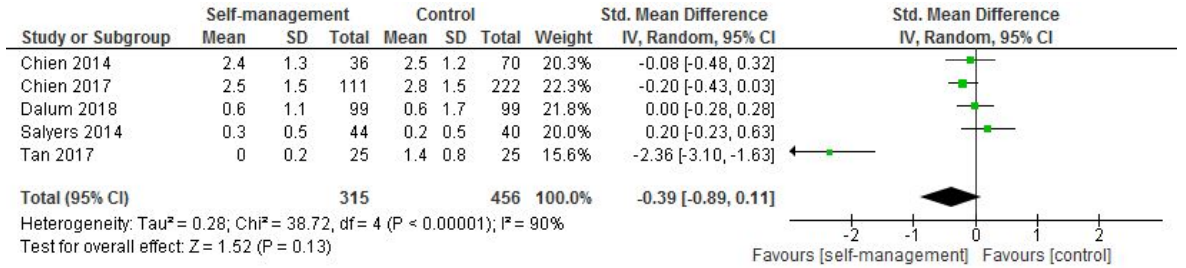


Figure 5.1.8 Forest plot of depression and anxiety symptoms follow up

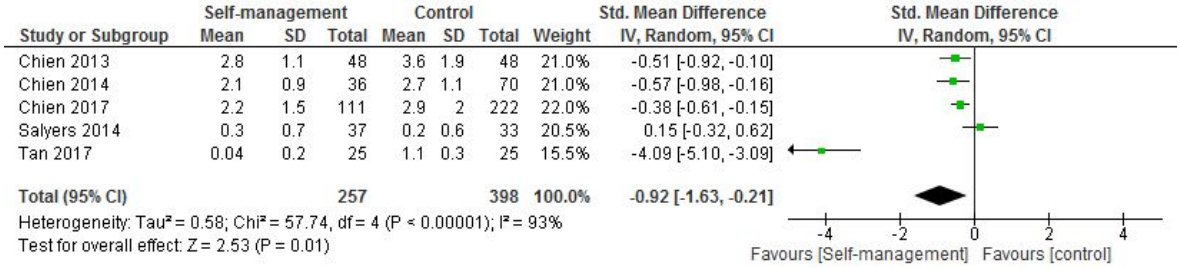


5.2 Readmission and length of hospitalisation

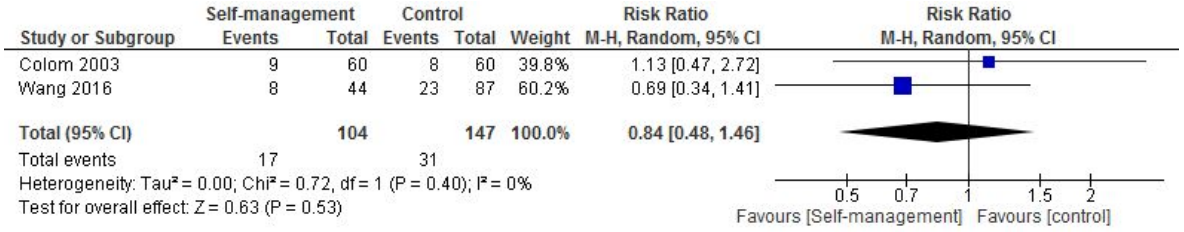
5.2.1 **Mean** number of Readmissions to acute care at end of treatment



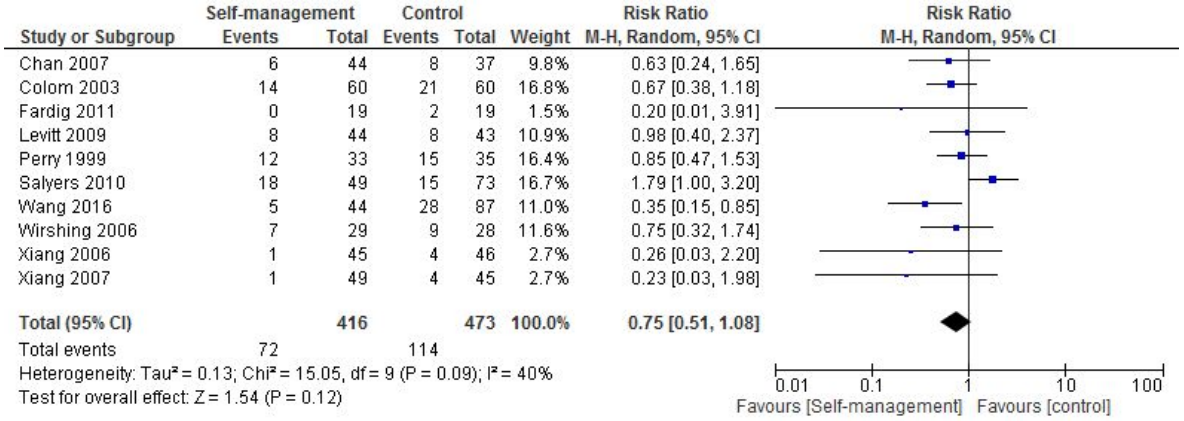
5.2.2 **Mean** number of Readmissions to acute care at follow-up



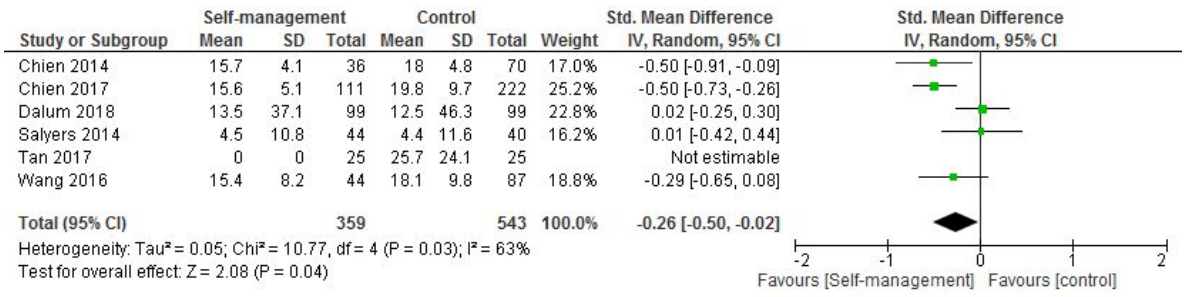
5.2.3 Total number of participants readmitted at end of treatment



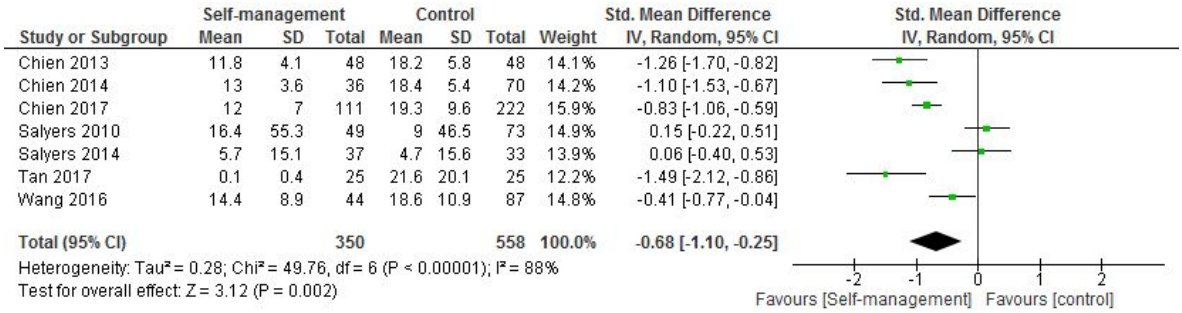
5.2.4 Total number of participants readmitted at follow up



5.2.5 Length of admission at end of treatment



5.2.6 Length of admission at follow-up



5.3 Self-rated recovery outcomes

Figure 5.3.1 Total self-rated recovery at end of treatment

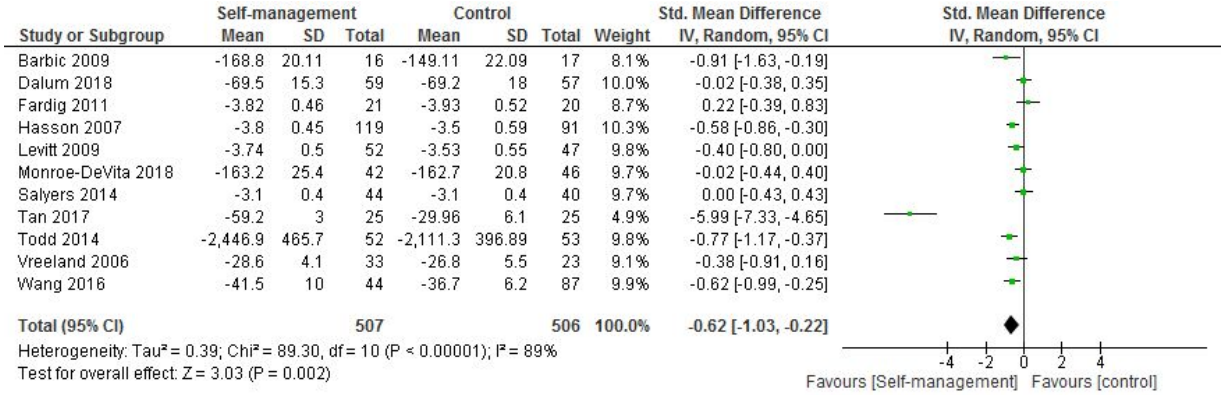


Figure 5.3.2 Total self-rated recovery at end of treatment

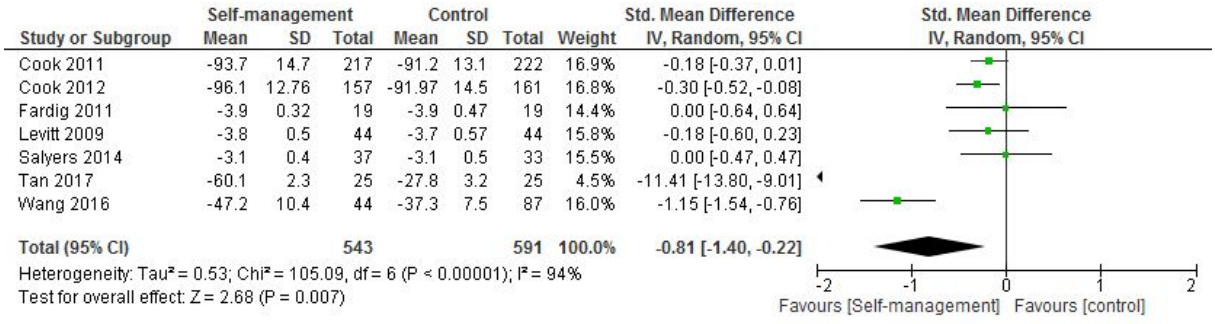


Figure 5.3.3 Empowerment at end of treatment

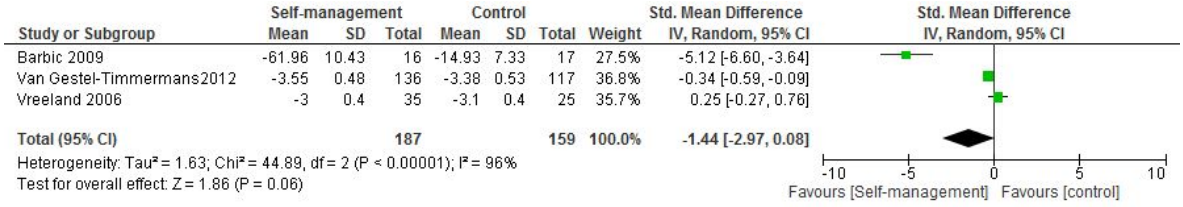


Figure 5.3.4 Empowerment at follow-up

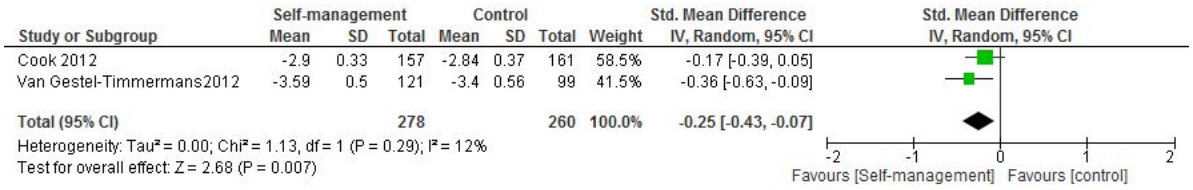


Figure 5.3.5 Hope at end of treatment

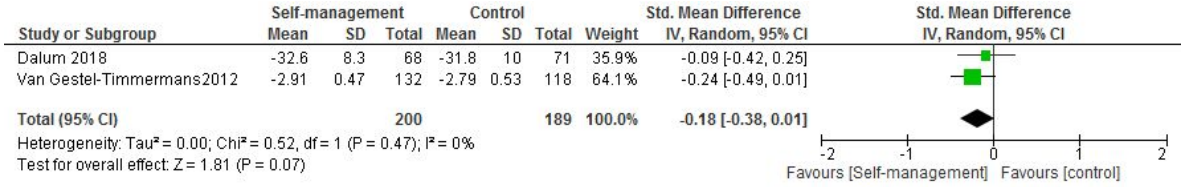


Figure 5.3.6 Hope at follow-up

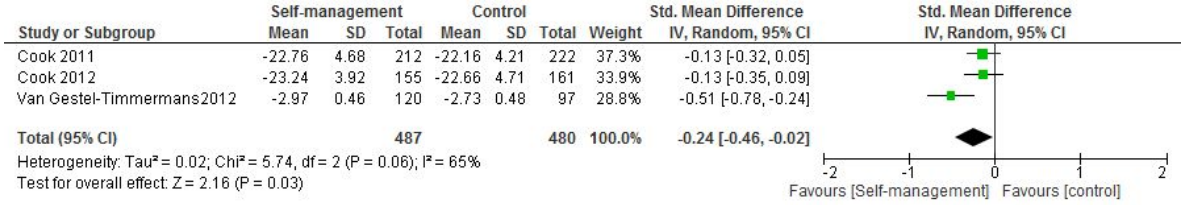


Figure 5.3.7 Self-efficacy at end of treatment

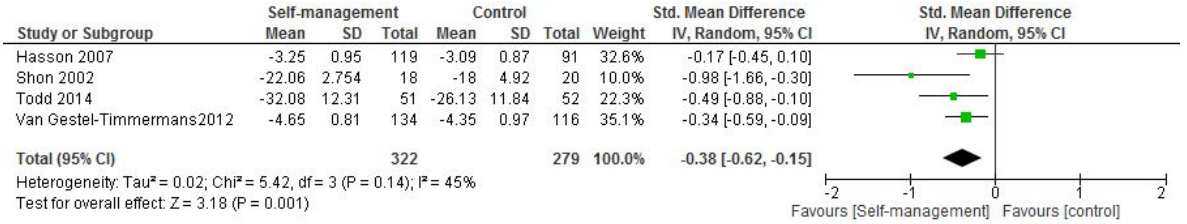
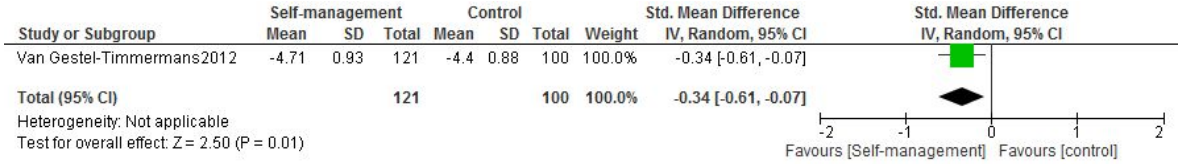


Figure 5.3.8 Self-efficacy at follow up



5.4 Functioning

Figure 5.4.1 Functioning post-treatment

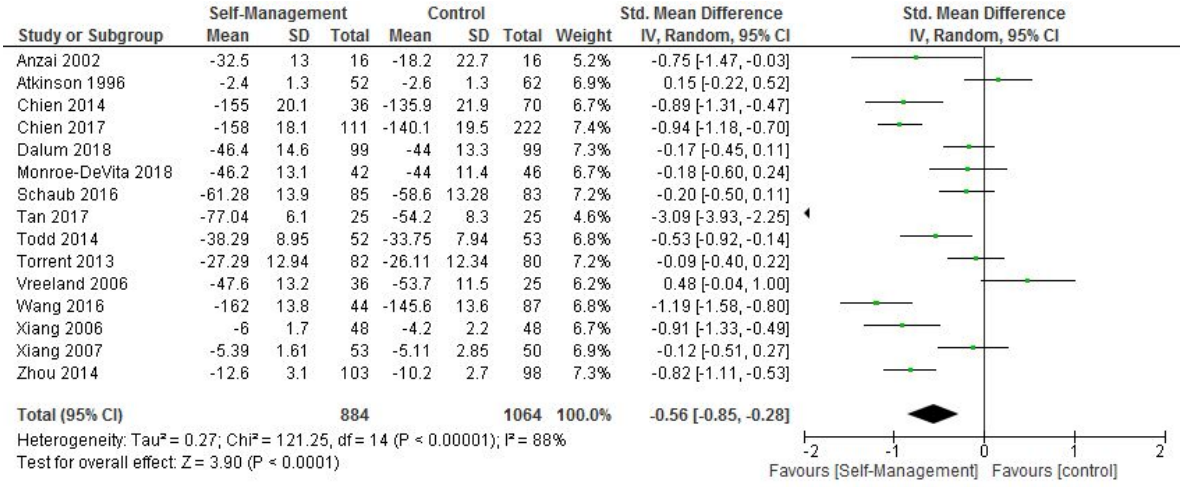
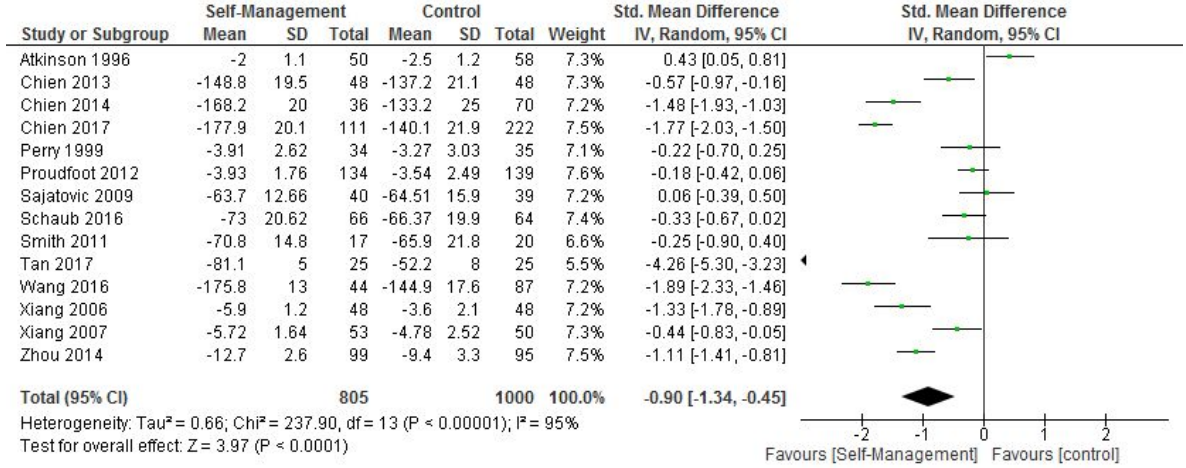


Figure 5.4.2 Functioning Follow Up



5.5 Quality of Life

Figure 5.5.1 Quality of life at end of treatment

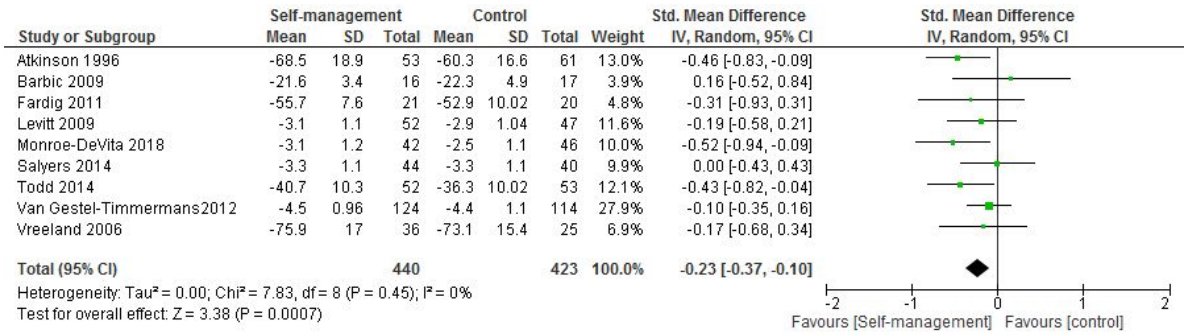
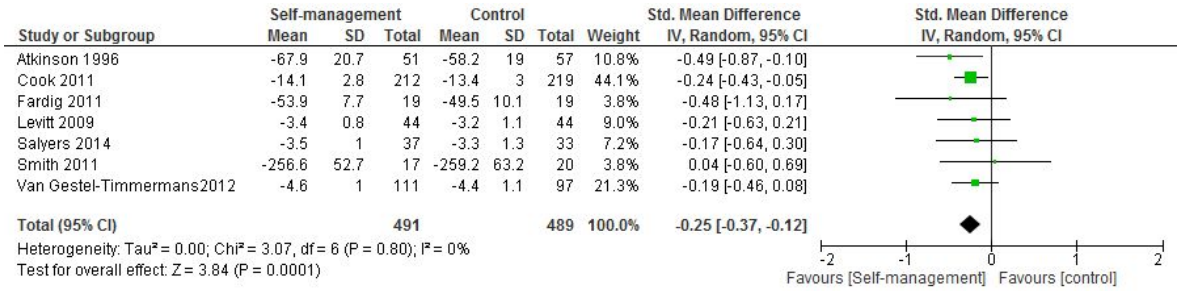


Figure 5.5.2 Quality of life at follow-up



DS6 Full Heterogeneity and Sensitivity Analyses

Seventeen of the twenty-two meta-analyses had high levels of heterogeneity as assessed by an I^2 greater than 50% and/or a significant X^2 test. The one- study-removed method[17] was utilised to explore sources of statistical heterogeneity. Although high heterogeneity was identified in a range of meta-analyses, evaluation of clinical and methodological characteristics resulted in the decision to not remove any of the included studies.

Symptoms

For total symptoms at end of treatment, removal of Tan (2017) reduced heterogeneity (I^2 = 65%), however it still remained high. The effect size and 95% CI were -0.34 [-0.51, -0.18] (k=16), favouring self-management, as was the case when this study was included. This study is one of the smaller studies in the review which may have contributed to heterogeneity through an overestimation of effect. The small change to heterogeneity does not warrant its removal. At follow up heterogeneity was particularly high, however systematic removal of studies did not significantly reduce heterogeneity for this outcome.

For positive symptoms there was no change to heterogeneity or effect size at the end of treatment or follow up. For negative symptoms, removing Vreeland (2006) at end of treatment, reduced heterogeneity (I^2 = 33%) and effect size remained significant. This was one of two studies in this analysis that favoured control, which would account for the heterogeneity. At follow up there was no change to heterogeneity or effect size.

Relapse

For mean hospital readmission at follow up, removal of Tan (2017) reduced heterogeneity substantially (I^2 = 51%). The effect size and 95% CI reduced to -0.35 [-0.61, -0.09] (k= 4), still favouring self-management. While there is not a clear rationale to exclude, the results for most outcomes reported by Tan and colleagues (2017) had significantly larger effects than the other studies in this meta-analysis. This may be due to the small sample size in this study or other factors. The effect size of 0.35 is likely more representative of the true effect on relapse.

For length of hospitalisation, heterogeneity was high at both end of treatment and follow up. At end of treatment removal of Dalum (2018) reduced heterogeneity to I^2= 36% still favouring self-

management. The overall quality of the study appeared good , with a low risk of bias and as such does not warrant removal.

At follow up, systematic removal of each study did not impact on heterogeneity which remained high.

Self-rated recovery

Again, the removal of Tan (2017) reduced the heterogeneity substantially, although it remained high at both end of treatment (I^2=60%) and follow up (I^2=78%) The respective standard mean differences (-0.35 95% CI [-0.56, -0.13]; and -0.32 95% CI [-0.61, -0.03]) still favoured self-management on this outcome. Although there was no clear rationale justifying the removal of this study, the authors support a more conservative estimate of a small to moderate effect of self-management on self-rated recovery.

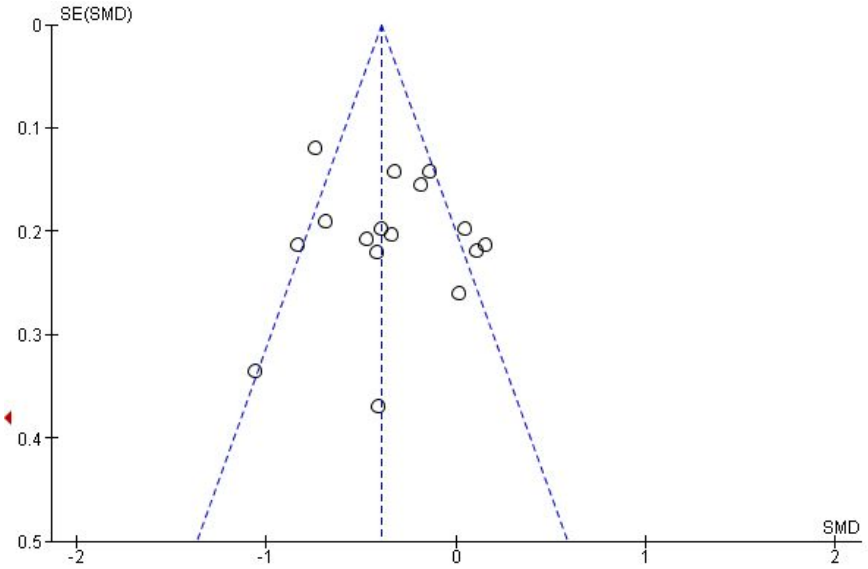
Functioning

For the functioning outcome at both end of treatment and follow up, heterogeneity was high and remained high after the systematic removal of each study. Although heterogeneity could not be accounted for by differences at the study level it is possible that factors such as cognitive function, not measured in the studies included in this review, may well be a mediating factor contributing to heterogeneity in this outcome.

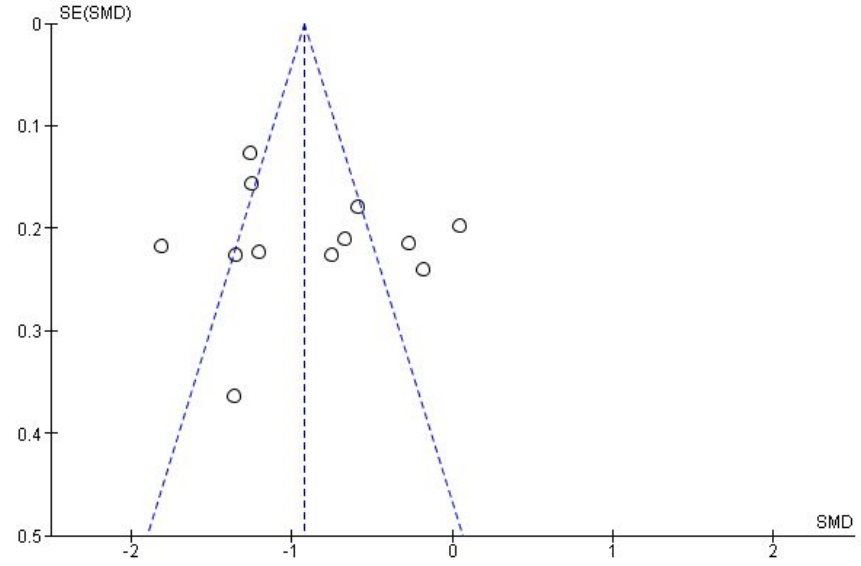
In sum, although high heterogeneity was identified in a range of meta-analyses, evaluation of clinical and methodological characteristics resulted in the decision to not remove any of the included studies.

DS7 Funnel Plots for assessment of Publication Bias (of analyses with 10 or more studies)

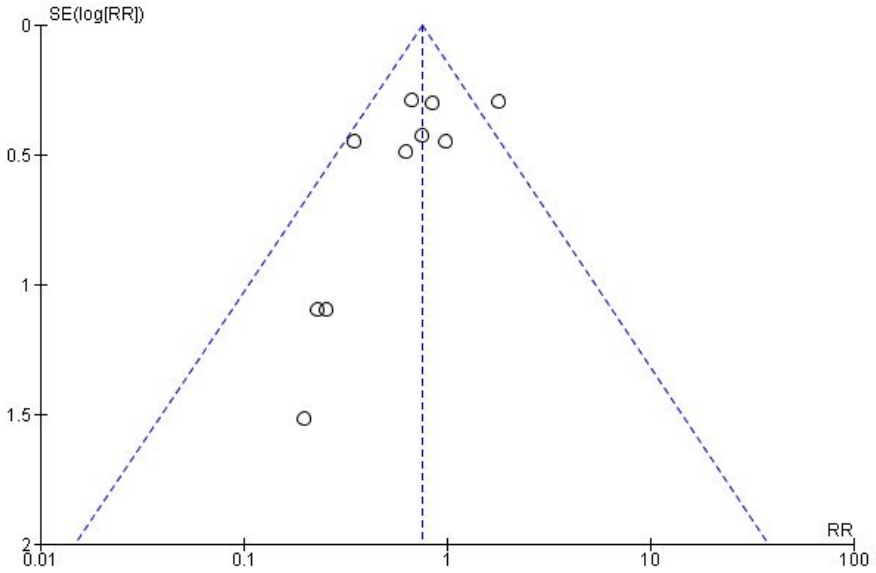
7.1 Total Symptoms: Post Treatment



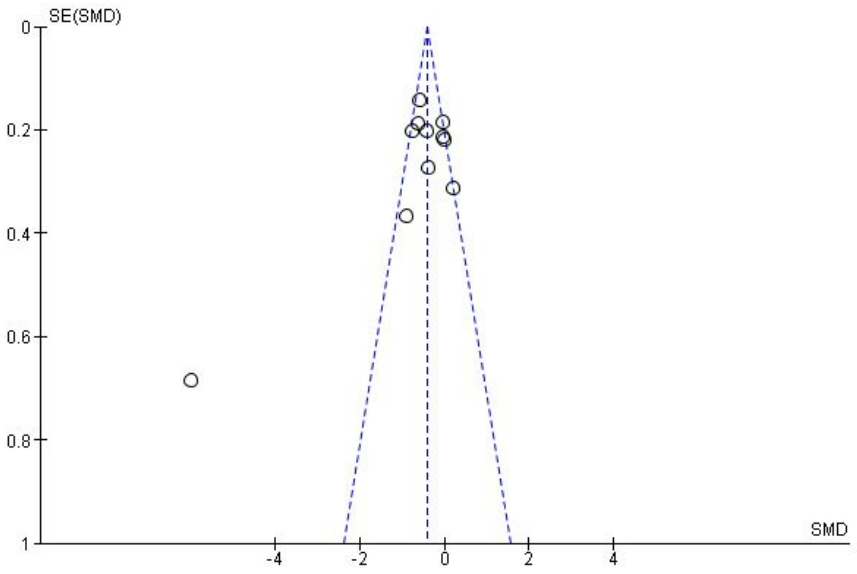
7.2 Total Symptoms: Follow Up



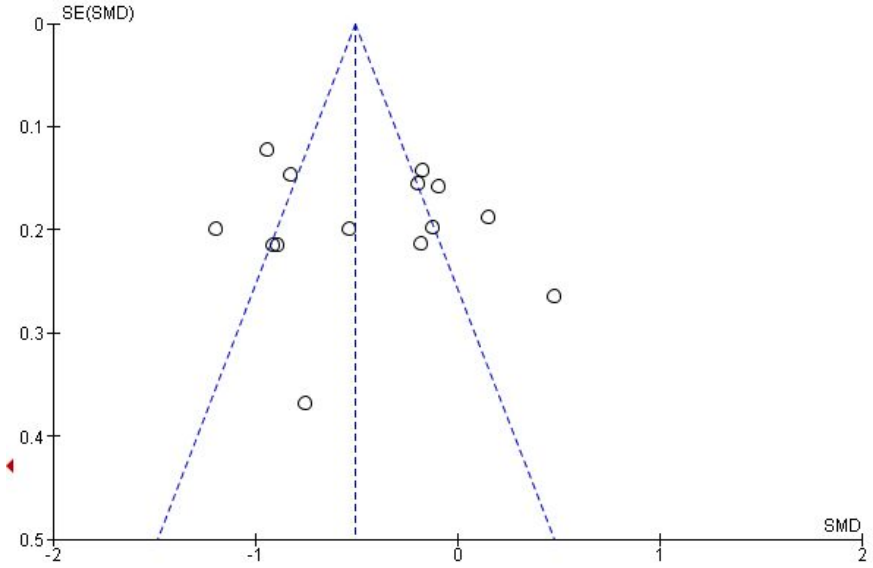
7.3 Readmissions (total events): Follow up



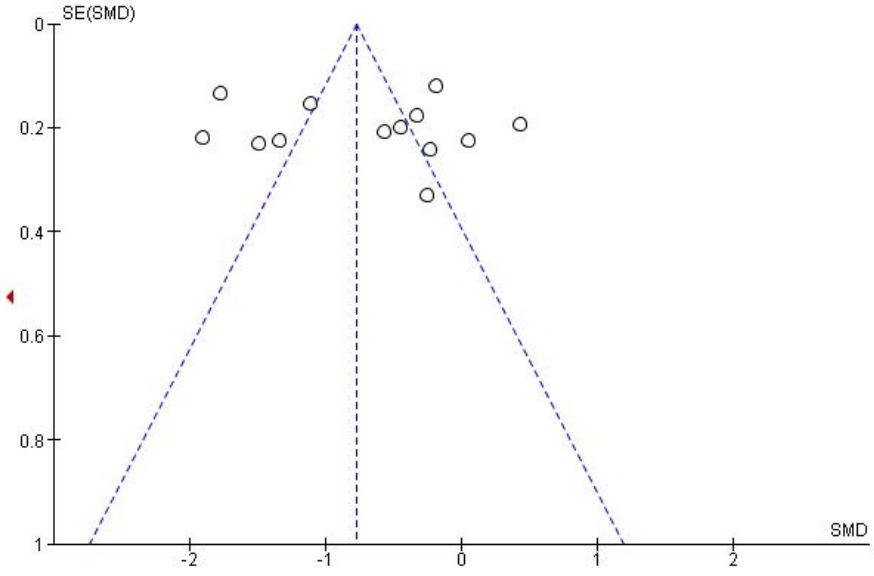
7.4 Recovery total: post treatment



7.5 Functioning: post-treatment



7.6 Functioning: Follow Up



DS8 Post-hoc subgroup analysis of treatment as usual and active control groups for main outcomes

	Outcome	Time of data collection	Group	Participants: Trials (k)	Participants: SM/control (n)	Estimate	Summary of estimate [95% CI]	Z, *p*	Heterogeneity: Q test	Heterogeneity: I² (%)
Symptoms	(1) Total Symptoms	End of treatment	All	17	912/1067		-0.43 [-0.63, -0.22]	4.12, *p*<.0001*	*Q* = 72.84, *p*<0.0001	78†
			TAU	9	476/452	SMD	-0.47 [-0.79, -0.14]	2.82, *p* = 0.005*	*Q* = 44.36, df = 8 (P < 0.00001); I² = %	82†
			Active	5	436/615		-0.40 [-0.67, -0.14]	3.04, *p* = 0.002*	*Q* = 5.31, *p* = 0.26	25
		Follow-up	All	13	676/844		-0.88 [-1.19, -0.57]	5.52, *p*<.0001*	*Q* = 82.69, *p*<0.0001	87†
			TAU	6	281/270	SMD	-0.84 [-1.23, -0.45]	4.18, *p* < 0.0001*	*Q* = 16.39, *p* = 0.003	76†
			Active	7	395/574		-0.91 [-1.38, -0.43]	3.75, *p* = 0.0002*	*Q* = 65.72, *p*< 0.00001	91†
Relapse	(2) **Mean** number of Readmissions to acute care	End of treatment	All	5	315/456		-0.39 [-0.89, 0.11]	1.52, *p* = 0.13	*Q* = 38.72, *p*<0.0001	90†
			TAU	2	124/124	SMD	-1.16 [-3.47, 1.16]	0.98, *p* = 0.33	*Q* = 34.73, *p*<0.0001	97†
			Active	3	191/332		-0.08 [-0.30, 0.13]	0.76, *p* = 0.45	*Q* = 2.59, *p*= 0.27	23
		Follow-up	All	5	257/398		-0.92 [-1.63, -0.21]	2.53, *p* = 0.01*	*Q* = 57.74, *p*<0.0001	93†
			TAU	2	73/73	SMD	-2.27 [-5.78, 1.24]	**1.27, *p* = 0.20**	*Q* = 42.06, *p*<0.0001	98†
			Active	3	184/325		-0.30 [-0.64, 0.05]	**1.66, *p* = 0.10**	*Q* = 5.55, *p*= 0.06	64†
	Length of hospitalisation throughout treatment / follow-up	End of treatment	All	6	359/543		-0.26 [-0.50, -0.02]	2.08, *p*= 0.04*	*Q* = 10.77, *p*= 0.03	63†
			TAU	2	124/124	SMD	0.02 [-0.25, 0.30]	**0.17, *p* = 0.87**	N/A	N/A
			Active	4	235/419		-0.35 [-0.57, -0.14]	3.23, *p* = 0.001*	*Q* = 4.70, *p*= 0.20	36
		Follow-up	All	7	350/558		-0.68 [-1.10, -0.25]	3.12, *p*=0.002*	*Q* = 49.76, *p*<0.0001	88†
			TAU	3	122/146	SMD	-0.85 [-1.93, 0.23]	**1.54, *p* = 0.12**	*Q* = 32.64, *p*<0.0001	94†
			Active	4	228/412		-0.58 [-1.01, -0.15]	2.65, *p* = 0.008*	*Q* = 16.93, *p*= 0.0007	82†
Recovery	(3) Recovery - Total	End of treatment	All	11	507/506		-0.62 [-1.03, -0.22]	3.03, *p*= 0.002*	*Q* = 89.3, *p*<0.0001	89†
			TAU	9	419/379	SMD	-0.73 [-1.23, -0.23]	2.87, *p* = 0.004*	*Q* = 84.39, *p*<0.0001	91†
			Active	2	88/127		-0.32 [-0.93, 0.29]	**1.03, *p* = 0.30**	*Q* = 4.63, *p*= 0.03	78†
		Follow-up	All	7	543/591		-0.81 [-1.40, -0.22]	2.68, *p* = 0.007*	*Q* = 105.09 *p*<0.0001	94†
			TAU	5	462/471	SMD	-0.97 [-1.73, -0.21]	2.52, *p* = 0.01*	*Q* = 84.84, *p*<0.0001	95†
			Active	2	81/120		-0.58 [-1.71, 0.54]	**1.01, *p* = 0.31**	*Q* = 13.61, *p*= 0.0002)	93†

	Outcome	Time of data collection	Group	Trials (k)	Participants SM/control (n)	Estimate	Summary of estimate [95% CI]	Z, *p*	Heterogeneity Q test	Heterogeneity I^2 (%)
Functioning	(4) Functioning	End of treatment	All	15	884/1064	SMD	-0.56 [-0.85, -0.28]	3.90, $p<0.0001$*	Q =121.25, $p<0.0001$	88†
			TAU	8	491/488		-0.45 [-0.88, -0.01]	2.02, p = 0.04*	Q = 73.59, $p<0.0001$	90†
			Active	7	393/576		-0.71 [-1.03, -0.39]	4.30, p < 0.0001*	Q = 30.86, $p<0.0001$	81†
		Follow-up	All	14	805/1000	SMD	-0.90 [-1.34, -0.45]	3.97, $p<0.0001$*	Q = 237.9, $p<0.0001$	95†
			TAU	7	313/320		-0.75 [-1.44, -0.05]	2.10, p = 0.04*	Q = 97.36, $p<0.0001$	94†
			Active	7	492/680		-1.05 [-1.64, -0.46]	3.50, p = 0.0005*	Q = 122.69, $p<0.0001$	95†
QoL	(5) Quality of Life	End of treatment	All	9	440/423	SMD	-0.23 [-0.37, -0.10]	3.38, p = 0.0007*	Q = 7.83, p = 0.45	0
			TAU	8	396/383		-0.26 [-0.40, -0.12]	3.56 P = 0.0004*	Q = 6.57, p= 0.47	0
			Active	1	44/40		0.00 [-0.43, 0.43]	**0.00, p = 1.00**	N/A	N/A
		Follow-up	All	7	491/489	SMD	-0.25 [-0.37, -0.12]	3.84, p= 0.0001*	Q =3.07, p = 0.80	0
			TAU	6	454/456		-0.25 [-0.38, -0.12]	3.78, p = 0.0002*	Q = 2.96, p= 0.71	0
			Active	1	37/33		-0.17 [-0.64, 0.30]	**0.72, p = 0.47**	N/A	N/A

*Statistically significant finding ($p<0.05$); † Indicates high heterogeneity: I^2 exceeds 50% and/or P value less than 0.10. Results in **bold** are different to main combined analysis.