Supplementary Material

Article Title: The Efficacy of Measurement-Based Care for Depressive Disorders: Systematic Review and Meta-Analysis of Randomized Controlled Trials

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Supplementary Material

Appendix 1. Search Strategy

MEDLINE
Publication Dates: Jan. 1, 1946-July 1, 2020
exp Patient Reported Outcome Measures/ OR **"Outcome Assessment (Health Care)"/ OR measurement-based care.ti,ab,kw.
OR feedback informed treatment.ti,ab,kw. OR patient reported OR outcome measure*.ti,ab,kw. OR continuous assessment.ti,ab,kw. OR monitoring treatment progress.ti,ab,kw. OR routine outcome monitoring.ti,ab,kw. OR progress monitoring.ti,ab,kw. OR patient level feedback.ti,ab,kw. OR patient focused research.ti,ab,kw. OR outcome* assessment.ti,ab,kw. OR outcome-based care.ti,ab,kw. OR collaborative care.ti,ab,kw. OR care management.ti,ab,kw. OR measurement feedback system.ti,ab,kw. OR measurement-based.ti,ab,kw. OR self-rating.ti,ab,kw. OR self report.ti,ab,kw. AND
exp Antidepressive Agents/ OR antidepress*.ti,ab,kw. OR exp psychotherapy/ OR psychotherapy.ti,ab,kw.
AND depressive disorder/ or exp depressive disorder, major/ or exp depressive disorder, treatment-resistant/ or exp dysthymic disorder/ OR *Depression/ OR depress*.ti,ab,kw.
AND randomized controlled trial.pt. OR RCT.ti,ab,kw. OR random*.ti,ab,kw.
RESULT: 1802

Embase
Publication Dates: Jan. 1, 1980-July 1, 2020
exp patient-reported outcome/ OR exp outcome assessment/ OR measurement-based care.ti,ab,kw. OR feedback informed treatment.ti,ab,kw. OR patient reported outcome measure*.ti,ab,kw. OR continuous assessment.ti,ab,kw. OR monitoring treatment progress.ti,ab,kw. OR routine outcome monitoring.ti,ab,kw. OR progress monitoring.ti,ab,kw. OR patient level feedback.ti,ab,kw. OR patient focused research.ti,ab,kw. OR outcome* assessment.ti,ab,kw. OR outcome-based care.ti,ab,kw. OR collaborative care.ti,ab,kw. OR care management.ti,ab,kw. OR measurement feedback system.ti,ab,kw. OR measurement-based.ti,ab,kw. OR self-rating.ti,ab,kw. OR self report.ti,ab,kw.
AND exp antidepressant agent/ OR antidepress*.ti,ab,kw. OR exp psychotherapy/ OR psychotherapy.ti,ab,kw.
AND *depression/ OR depress*.ti,ab,kw.
AND exp randomized controlled trial/ OR (random* and control*).ti,ab,kw. OR RCT.ti,ab,kw.
RESULT: 4257

PsycINFO
Publication Dates: 1980-July 1, 2020
DE "Patient Reported Outcome Measures" OR TI "measurement-based care" OR TI “feedback informed treatment” OR TI “patient reported outcome measure” OR TI “continuous assessment” OR TI “monitoring treatment progress” OR TI “routine outcome monitoring” OR TI “progress monitoring” OR TI “patient level feedback” OR TI “patient focused research” OR TI “outcome* assessment” OR TI “outcome-based care” OR TI “care management” OR TI “measurement feedback system” OR TI “measurement-based” OR TI “self-rating” OR TI “self report” OR AB “measurement-based care” OR AB “feedback informed treatment” OR AB “patient reported outcome measure” OR AB “continuous assessment” OR AB “monitoring treatment progress” OR AB “progress monitoring” OR AB “patient level feedback” OR AB “patient focused research” OR AB “outcome* assessment” OR AB “outcome-based care” OR AB “care management” OR AB “measurement feedback system” OR AB “self-rating” OR AB “self report” OR KW “measurement-based care” OR KW “feedback informed treatment” OR KW “patient reported outcome measure” OR KW “continuous assessment” OR KW “monitoring treatment progress” OR KW “progress monitoring” OR KW “patient level feedback” OR KW “patient focused research” OR KW “outcome* assessment” OR KW “outcome-based care” OR KW “care management” OR KW “measurement feedback system” OR KW “measurement-based” OR KW “self-rating” OR KW “self report” AND
TI "depress**" OR AB "depress**" OR KW "depress**" OR (DE "Major Depression") AND (DE "Major Depression" OR DE "Depression (Emotion)" OR DE "Treatment Resistant Depression" OR DE "Late Life Depression" OR DE "Long-term Depression (Neuronal)")
AND
RESULT: 712

ClinicalTrials.gov
Publication Dates: first posted on or before July 1, 2020
“depression” OR “depressive disorder”
AND
“measurement-based” OR “patient reported outcome measure” OR “feedback informed treatment” OR “continuous assessment” OR “routine outcome monitoring” OR “monitoring treatment progress” OR “progress monitoring” OR “patient level feedback”
RESULT: 148

CNKI
(AB='基于评估的治疗'+患者报告的结果评估'+结果评估'+反馈信息处理'+患者报告结果评估'+连续评估'+监测治疗进展'+常规结果监测'+进度监测'+患者反馈'+患者焦点研究'+结果评估'+结局评估'+基于结果的治疗'+协作治疗'+合作治疗'+治疗管理'+评估反馈系统'+基于评估的'+自评') AND (AB='抗抑郁药'+抗抑郁'+心理治疗') AND (AB='抑郁症'+难治性抑郁症'+情绪障碍'+恶劣心境障碍'+抑郁') AND (AB='随机对照试验'+RCT'+随机')
(AB='Measurement-based Care'+患者报告的结局评估'+ Outcome Measures'+ Feedback informed treatment'+ Patient reported '+ continuous assessment'+ monitoring treatment progress'+ routine outcome monitoring '+ patient level feedback '+ patient focused research '+ outcome assessment'+ outcome measure'+ outcome-based care'+ collaborative care'+ collaborative treatment'+ care management'+ measurement feedback system'+ self-rating') AND (AB='antidepressant'+ antidepress'+ psychotherapy') AND (AB='depressive disorder'+ treatment resistant depression'+ mood disorders'+ dysthymic disorder'+ depression') AND (AB='randomized controlled trial'+RCT'+ random')
Result: 888
Hand search using “depression” + “measurement-based care”
Result: 5

Wanfang Database
(主题: "基于评估的治疗"+"患者报告的结果评估"+"结果评估"+"反馈信息处理"+"患者报告结果评估"+"连续评估"+"监测治疗进展"+"常规结果监测"+"进度监测"+"患者反馈"+"患者焦点研究"+"结果评估"+"结局评估"+"基于结果的治疗"+"协作治疗"+"合作治疗"+"治疗管理"+"评估反馈系统"+"基于评估的"+"自评") AND (主题: "抗抑郁药"+"抗抑郁"+"心理治疗") AND (主题: "抑郁症"+"难治性抑郁症"+"情绪障碍"+"恶劣心境障碍"+"抑郁") AND (主题: "随机对照试验"+"RCT"+"随机")
Result: 1010
Hand search using “depression” + “measurement-based care”
Result: 8
Supplementary Figure 1. Funnel plot for clinical response.

Supplementary Figure 2. Funnel plot for clinical remission.

Supplementary Figure 3. Funnel plot for standardized mean difference.

Supplementary Figure 4. Funnel plot for attrition.

Supplementary Figure 5. Funnel plot for medication adherence.
Appendix 2. PUBLICATION BIAS REPORTS

RESPONSE

Classical fail-safe N
This meta-analysis incorporates data from 3 studies, which yield a z-value of 2.85133 and corresponding 2-tailed p-value of 0.00435. The fail-safe N is 4. This means that we would need to locate and include 4 'null' studies in order for the combined 2-tailed p-value to exceed 0.050.

Egger's Test of the Intercept
In this case the intercept (80) is 1.25855, 95% confidence interval (-91.48020, 93.99730), with t=0.17243, df=1. The 1-tailed p-value (recommended) is 0.44565, and the 2-tailed p-value is 0.89129.

REMISSION

Classical fail-safe N
This meta-analysis incorporates data from 5 studies, which yield a z-value of 4.61903 and corresponding 2-tailed p-value of 0.00000. The fail-safe N is 23. This means that we would need to locate and include 23 'null' studies in order for the combined 2-tailed p-value to exceed 0.050.

Egger's Test of the Intercept
In this case the intercept (80) is 5.68818, 95% confidence interval (-4.19552, 15.57189), with t=1.83154, df=3. The 1-tailed p-value (recommended) is 0.08221, and the 2-tailed p-value is 0.16442.

STANDARDIZED MEAN DIFFERENCE

Classical fail-safe N
This meta-analysis incorporates data from 5 studies, which yield a z-value of 6.19746 and corresponding 2-tailed p-value of 0.00000. The fail-safe N is 45. This means that we would need to locate and include 45 'null' studies in order for the combined 2-tailed p-value to exceed 0.050.

Egger's Test of the Intercept
In this case the intercept (80) is 8.10452, 95% confidence interval (2.25827, 13.95077), with t=4.41175, df=3. The 1-tailed p-value (recommended) is 0.01080, and the 2-tailed p-value is 0.02161.

Duval and Tweedie's Trim and Fill
The program is looking for missing studies based on a random effects model, and is looking for missing studies only to the left side of the mean effect (these parameters are set by the user). Using these parameters the method suggests that no studies are missing. Under the random effects model the point estimate and 95% confidence interval for the combined studies is 0.52513 (0.06300, 0.98727). Using Trim and Fill these values are unchanged.

ALL-CAUSE DISCONTINUATION

Classical fail-safe N
This meta-analysis incorporates data from 7 studies, which yield a z-value of 1.60477 and corresponding 2-tailed p-value of 0.10855. Since the combined result is not statistically significant, the Fail-Safe N (which addresses the concern that the observed significance may be spurious) is not relevant.

Egger's Test of the Intercept
In this case the intercept (80) is -0.35304, 95% confidence interval (-4.51414, 3.80806), with t=0.21810, df=5. The 1-tailed p-value (recommended) is 0.41799, and the 2-tailed p-value is 0.83598.

MEDICATION ADHERENCE

Classical fail-safe N
This meta-analysis incorporates data from 3 studies, which yield a z-value of 3.24099 and corresponding 2-tailed p-value of 0.00119. The fail-safe N is 6. This means that we would need to locate and include 6 'null' studies in order for the combined 2-tailed p-value to exceed 0.050.

Egger's Test of the Intercept
In this case the intercept (80) is -0.07954, 95% confidence interval (-17.92785, 17.76877), with t=0.05662, df=1. The 1-tailed p-value (recommended) is 0.48200, and the 2-tailed p-value is 0.96399.
## Supplementary Table 1. Post Hoc Sensitivity Analyses Exploring Potential Sources of Heterogeneity

### Response

**Adli removed (non-algorithm studies remain)**

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**Guo removed (non-Chinese studies remain)**

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**Yeung removed (psychiatric setting studies remain)**

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### Remission

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**Psychiatric settings studies only**

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Standardized Mean Difference

Note: All 3 Chinese studies involved psychiatric clinic patients, while both non-Chinese studies involved primary care patients, so the results are the same

Psychiatric settings OR Chinese studies (Guo, Chen, Zhao remain)

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Primary care studies OR non-Chinese studies (Wikberg & Yeung remain)

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