Meta-Analysis

Frequentist Random Effects Results

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Abstract

Using Bayesian hierarchical (random effects) models for the meta-analysis with various priors for the heterogeneity parameter τ , it was found that there was a significant treatment effect for depressive symptoms (mean = 0.97, 95% CI), anxiety (), and worry symptoms. However, there was substantial heterogeneity present specifically in the depressive symptoms subgroup where tau was estimated to be between 0.58-1.12 where $\tau > 0.5$ is considered substantial. In short, as with the frequentist meta-analysis results, the treatments did appear to have an effect but there is much uncertainty surrounding the treatment effect size though the 95% credible interval suggests that this effect might be at least what Cohen would indicate as medium (e.g. 0.39-0.41 found for Bayesian and Frequentist results), In terms of estimate shrinkage, there is Bevan et al. is most affected where their reweighted effect size is more than halved.

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Statistical Analysis

Results

Forest Plot