Title: Effectiveness of metacognitive training for psychosis: A systematic review and meta-analysis

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Background: Most people with schizophrenia (SZ) experience persistent positive symptoms (sx), which are mitigated by metacognitive training for psychosis (MCT).

Objective: To reassess MCT effectiveness on proximal (directly targeted) outcomes in SZ given a large increase in efficacy trials. Distal (indirectly influenced) outcomes and moderators were novel.

Methods: Eleven electronic databases were searched (2007 to June 3, 2021). There were no age, sex, gender, language, or study design restrictions. PRISMA guidelines were followed. Data were pooled using random effects models. Hedges' *g* effect sizes were computed. The Mixed Methods Appraisal Tool assessed study quality.

Results: We identified 1045 reports (281 assessed). Forty reports were meta-analyzed, six were combined in narrative review (N=1816). Proximal outcomes (all significant) were positive sx (g = 0.50 [95% CI = 0.34-0.67]), delusions (g = 0.69 [95% CI = 0.45-0.93), hallucinations (g = 0.26 [95% CI = 0.11-0.40]), and cognitive biases (g = 0.16 [95% CI = 0.03-0.29]). Significant distal outcomes were self-esteem (g = 0.17 [95% CI = 0.03-0.31]), negative sx (g = 0.23 [95% CI = 0.10-0.37]), and functioning (g = 0.41 [95% CI = 0.12-0.69]). Quality of life was non-significant (g = 0.20 [95% CI = -0.07-0.47]); only one study assessed wellbeing. Effectiveness was maintained up to one year. Year of publication moderated hallucinations (β = .04, [95% CI = 0.00 - 0.07]).

Conclusion: MCT's effectiveness and durability were observed on several proximal and distal outcomes up to one year postintervention. MCT is accessible, low-cost, and ready for large-scale implementation.