

CBTpro: Scaling up Cognitive Behavioral Therapy for Psychosis Using Simulated Patients and
Spoken Language Technologies

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Study Purpose and Objectives

This study, conducting during Phase II of a Fast Track STTR (NIMH R42 123215), evaluates the effectiveness of a web-based clinician training platform that provides simulated practice and automated performance feedback to increase provider competency in Cognitive Behavioral Therapy for psychosis (CBTp). The project aims to evaluate impact of AI-enhanced training on client clinical and recovery outcomes.

Study Design

We conducted a randomized controlled trial (RCT) in partnership with community mental health agencies providing services to individuals experiencing psychosis across multiple regions of the United States. Stratified randomization occurred by clinic ($k = 64$), with a sample target of $n = 100$ community behavioral health practitioners and $n = 300$ clients with psychosis. We compared Cognitive Behavioral Therapy for psychosis (CBTp) training as usual (TAU), which consisted of a 3-hour SAMHSA-funded online CBTp training course, with TAU+AI-enhanced CBTp training (TAU+CBTpro). Research approval was obtained by the University of Washington Institutional Review Board and monitored by a Data Safety Monitoring Board. All participants provided informed consent.

Participants. Provider participants were clinicians delivering outpatient services to adults with psychosis; client participants were adults receiving care from those enrolled clinicians. Client Inclusion: Adults who speak English, meet with their provider who is participating in the study at least bi-weekly (2x a month), and do not plan to leave services in the next 6 months. Qualifying diagnoses for clients include: schizophrenia; schizoaffective disorder; schizophreniform disorder; delusional disorder; other specified schizophrenia spectrum and other psychotic disorder; unspecified schizophrenia spectrum or other psychotic disorder; bipolar disorder with psychotic features; major depressive disorder with psychotic features. Exclusion criteria: Dx of psychosis secondary to substance intoxication. Clinics were randomized to one of two training conditions: CBTp training-as-usual (CBTp e-Primer) or CBTp e-Primer augmented with CBTpro, a web-based simulated practice and automated feedback training platform. Providers in both conditions continued to deliver standard outpatient services.

Procedure. Consenting practitioners were provided with access to either the TAU or TAU+CBTpro trainings. Training access was provided for 3 months. Assessments were conducted at prior to initiating training (BL) and post-training (3M). Client participants completed a follow-up assessment 3 months later (6M). Client assessments included measures

of psychosis symptoms, recovery, functioning, and working alliance with their participating practitioner. Practitioner assessments focused on CBTp competencies, perceived impact of training on their practice, and working alliance with the participating client.

All participants were compensated for completing each of their respective batteries (\$30, \$40 and \$50 respectively) and practitioners received \$100 at the end of their training.

Statistical Analysis Plan

Client outcomes included measures of paranoia (Revised Green Paranoia Scale (R-GPTS), recovery (CHOICE-Short Form) and functioning (Sheehan Disability Scale) were evaluated using mean changes across timepoints and between groups. Analyses will follow an intent-to-treat approach.