AI Against Anxiety: Efficacy, Mechanisms, and Demand for Voice-Based AI Therapy

Bennet Feld[1] & Nicolas Roever[2]

[1]London School of Economics and Political Science, London, UK
[2]University of Cologne, Cologne, Germany

Abstract

Cognitive Behavioral Therapy (CBT) is among the most effective treatments for depression and anxiety, yet its scalability is limited by cost, availability, and stigma—constraints which artificial intelligence (AI) may help overcome. We evaluate the efficacy of interactive CBT fully administered by a voice-based AI and its downstream effects on demand for traditional mental healthcare in a large-scale randomized controlled trial. First, findings support that AI can effectively deliver CBT. Treated participants show large reductions in symptoms of depression and anxiety relative to the control group. Second, treated participants reduce their demand for human therapy, reporting less fear of judgment and greater comfort disclosing to AI than to a human therapist. Thus, while expanding access to treatment, AI may reshape how patients seek and engage with mental health care.
