

Computer Assisted Learning in an Outpatient Setting
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Purpose

The purpose of this project is to assess the feasibility of using a computerized self-learning tool as a supplement to traditional outpatient care received by patients during the course of substance abuse treatment. Several treatment approaches that have met criteria to be classified as “evidence-based” involve teaching substance-dependent patients coping skills to assist them with avoiding future substance use. Currently, skill-teaching is provided primarily in group therapy sessions. This project will assess whether urban, substance-dependent patients will interact with a computerized learning system (called the Therapeutic Education System) to help them learn these coping skills, and also provide an estimate of how strong the effect of a computerized system will be on patient skill learning and patient clinical outcomes.

Overview

The broad objective of this project is to pilot a line of research (and to later secure funding for extended future research) to determine whether computer-assisted learning systems may function as a viable supplement to standard substance abuse outpatient treatment, and to determine the most efficient and cost-effective means to integrate such systems into care. To accomplish this objective, the immediate project would finance a pilot study of cocaine-using patients comparing the outcomes of patients exposed to a self-paced, computer-assisted coping skills learning system combined with standard outpatient treatment against the outcomes of a control group of patients in the same standard outpatient treatment not exposed to the self-paced system. The purpose of this demonstration trial is to assess the feasibility of using computer-assisted learning systems, specifically the Therapeutic Education System (TES) with urban outpatients, and to estimate the effects of the learning system on patient clinical outcomes. The specific aims of the project are to: 1) determine whether low-cost behavioral incentives will induce drug-free outpatients to interact with the TES, 2) determine whether interacting with the TES will enhance patient acquisition of evidence-based coping skills, and 3) determine whether interacting with the TES will enhance patient recovery and outcomes such as treatment attendance, length-of-stay, and cocaine use during treatment.

We propose to examine the effect of adding the TES as a supplement to treatment-as-usual in an urban outpatient substance abuse treatment program. Thirty cocaine dependent or cocaine abusing patients who attend their outpatient program for two weeks will be recruited. These patients will be randomly assigned into one of two groups: 1) treatment-as-usual plus incentives for completing a thrice-weekly course from the TES based on a coping skills approach, or 2) treatment-as-usual plus incentives but no exposure to the TES. Patients would be assessed at baseline using a basic measure of knowledge of coping skills and response to high-risk cocaine related situations. The experimental intervention will last eight weeks, during which time patients can earn

incentives for engaging in the computer-based exercises. Cocaine use will be assessed during the study. After the study, patients will be reassessed on: 1) knowledge of coping skills and response in risky situations, as well as measures of attendance and retention, and cocaine use during treatment.