Using Text Messaging to Reduce Methamphetamine Use and Sexual Risk Behaviors and Increase ART Adherence among Men Who Have Sex with Men

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Abstract

Methamphetamine use among MSM is deeply integrated into socio-sexual networks including physical risk venues such as circuit parties, sex clubs, and bathhouses and digital spaces such as cell phone applications, websites, and digital chat rooms to "hook up" for sex. Thus, methamphetamine use is highly associated with HIV infection due specifically to concomitant high-risk sexual behaviors that occur while using the drug. Text-messaging is a feasible and sustainable approach for targeting high-risk, methamphetamine-using MSM; particularly, those who fail to attend face-to-face or site-based interventions. A real-time text-messaging intervention capitalizes on a communication channel to which this population will attend at the exact time they are most likely to make high-risk sexual decisions. In the Stage I (N = 52) open label pilot study there were significant decreases in frequency of methamphetamine use and unprotected sex while on methamphetamine (both $p < .01$), and a significant increase in self-reported abstinence from methamphetamine use (13.3% vs. 48.9%; $p < .001$) from baseline to follow-up. Additionally, participants reported reductions of unprotected anal intercourse with HIV-positive partners ($p < .01$); with HIV-negative partners, participants reported fewer insertive and receptive episodes (both $p < .05$). The Stage II randomized controlled trial, which will begin enrollment in February 2014, will assess the impact of the theory-based text-messaging intervention on reductions in methamphetamine use and HIV sexual risk behavior and, for the HIV-infected participants, simultaneously increases in HIV antiretroviral treatment/adherence, and determine the cost effectiveness of the text-messaging intervention. Participants will receive text messages that are personally tailored to fit their risk profile. Participants will be randomized into one of three conditions: Group 1: culturally relevant theory-based text messages interactively transmitted by peer health educators; or, Group 2: the same culturally relevant theory-based text messages transmitted by automation; or, Group 3: assessment-only control with no theoretically based text messages.