Smartphone-based contingency management for smoking cessation with smokers diagnosed with attention-deficit/hyperactivity disorder.

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Abstract

The prevalence of smoking among individuals diagnosed with attention-deficit/hyperactivity disorder (ADHD) is twice as high as the general smoking population. The aim of this study was to test the feasibility, acceptability, and preliminary efficacy of delivering a smartphone-based contingency management (CM) smoking cessation intervention with 3 adults diagnosed with ADHD. Using a multiple-baseline design, participants (N = 3) used their smartphones to upload 2 daily videos showing themselves measuring their carbon monoxide (CO) levels (abstinence was defined as CO ≤4 ppm). Monetary vouchers, redeemable for gift cards, were used to reinforce smoking abstinence during tapering, treatment, and thinning phases that lasted up to 28 days. During a 1-week follow-up meeting, participants provided 1 CO sample that was not rewarded. Preliminary results demonstrated that participants decreased their exhaled breath CO relative to baseline (from a mean of 24 ppm at baseline to a mean of 6 ppm during treatment). Participants rated the smartphone application as effective, convenient, and easy to use. Results suggest that a smartphone-based CM intervention is both feasible and acceptable for initiating smoking abstinence among individuals diagnosed with ADHD.