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**Abstract**

# Using Theoretically Tailored Mobile Communications to Target Risky Drinking Among Employed Adults: Design of a Randomized Effectiveness Trial

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**Abstract**

**Background:** A sizeable proportion of employed adults consume alcohol at non-dependent but risky levels, which is defined by the National Institutes of Health for men as drinking more than 14 drinks per week or more than 4 in a day and for women as drinking more than 7 drinks per week or more than 3 drinks in a day. Risky levels of drinking impact the health, well-being, and productivity of employees, while driving costs to employers in lost productivity, absenteeism, and health care costs. There is a lack of evidence-based behavior change programs targeting alcohol consumption for employer-sponsored wellness programs.

**Objective:** The aim of this study is to evaluate the effectiveness of a stage-matched and individually tailored behavior change mHealth program based on the Transtheoretical Model of Behavior Change promoting responsible drinking to employed adults.

**Methods:** A 2 arm randomized effectiveness trial is being conducted with 1,012 employed adults recruited by Survey Sampling, Inc. Participants randomized to the treatment group participate in the intervention across three timepoints and six months (0, 3, and 6 months), during which time the control group is asked to complete electronic assessments at two timepoints (0 and 6 months). Participants in both groups will be asked to complete electronic assessments at 12 and 18 months post baseline.

**Results:** The effectiveness of the intervention will be assessed by comparing treatment and control participants on the following primary outcomes: a) proportion of participants who reach criteria (action or maintenance stages); b) quantity of alcohol use (number of drinks per week, number of drinks per drinking day); and c) frequency of alcohol use (days drinking above recommended limits during the past month, number of drinking days in the past month). Secondary outcomes include comparison on frequency of alcohol-related problems and well-being related to productivity.

**Conclusions:** We hypothesize that the treatment group will demonstrate significant improvement on primary and secondary outcomes compared to control group participants. Using a mobile, responsive, and engaging platform, leveraging best practices of behavior change science including tailored communications, this program is well positioned to provide an efficacious, sustainable, and cost-effective means of reducing harmful drinking and the associated individual, employer, and societal impacts.

**Trial Registration:** Clinicaltrials.gov NCT02126163; <http://clinicaltrials.gov/ct2/show/NCT02126163> (Archived by WebCite at <http://www.webcitation/6cXwhAGqW>)

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**KEYWORDS**

alcohol; behavior change; mobile health; risky drinking; tailored communications; theory based; transtheoretical model

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### Multimedia Appendix 1

Responsible Drinking program screenshots.

[[PDF File \(Adobe PDF File\), 1017KB-Multimedia Appendix 1](#)]

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### Multimedia Appendix 2

Extended abstract.

[[PDF File \(Adobe PDF File\), 495KB-Multimedia Appendix 2](#)]

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