

BACKGROUND

Most people who drink heavily, but are not alcohol dependent never seek treatment. According to the CDC, the cost of excessive alcohol consumption in the United States reached \$223.5 billion in 2006 or about \$1.90 per drink. Almost three-quarters of these costs were due to binge drinking which is the most common form of excessive alcohol consumption in the United States.

Recent evidence suggests that text messaging may help to reduce problem drinking as an adjunct to in-person services but very little is known about the effectiveness of remote messaging as a stand-alone intervention that can reduce problem drinking remotely at low cost.

OBJECTIVES

The primary goal of this study was to develop and test a text messaging program to reduce problem drinking in individuals seeking information about alcohol on the internet but were not seeking or enrolled in formal treatment. The secondary goal was to test which types of text messages might be most helpful in reducing problem drinking.

METHODS

We compared different types of text messages to weekly text assessment only to determine their impact on drinking outcomes for a 12 week period in 171 participants seeking to reduce their drinking remotely on the internet in an exploratory pilot study.

Messaging interventions included:

Condition	Description
Control Group(MA)	Four questions once a week via text message (MA)
Loss Frame (LF)	Daily consequence-based text messages plus weekly MA
Gain Frame (GF)	Daily benefit-based text messages plus weekly MA
Tailored Static (TS)	Daily static tailored text messages plus weekly MA
Tailored Adaptive (TA)	Daily or more frequent adaptive tailored text messages with just-in-time content plus weekly MA
Non-alcoholic* (NA)	Daily text messages that refer only generally to the participant's goals plus weekly MA

METHODS

- Recruited on self-help alcohol websites.
- Inclusion/Exclusion: Interested in reducing drinking, minimum 13 drinks for women and 15 a week for men, not alcohol dependent, no SMI.
- 3 web-based surveys over the 12-week study period
- Plus a brief web-based screening prior to enrollment
- Phone contact with participants at screening, optional phone call at week 12
- One message per day (except MA only and Tailored Adaptive groups)

Engagement

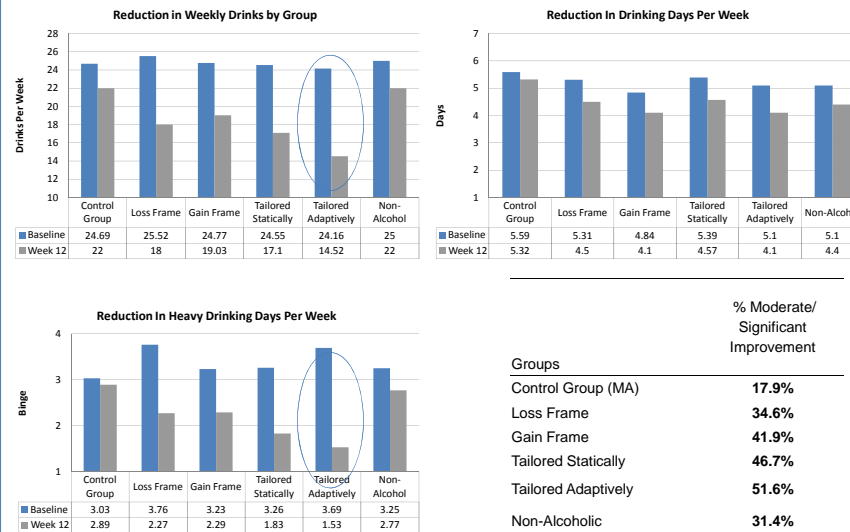
- 1149 took the web-screen.
- 661 web-screen eligible:
- 331 scheduled a phone screening appointment.
- 287 individuals who completed the phone screen.
- 176 enrolled.

Retention

- 171 in analysis (5 participants withdrawn)
- 9 participants drop-out/loss of contact.
- Final sample of 162 completers
- No differences between ITT and Completers
- Participants complete an average of 10.1 of 11 weeks of mobile assessment

Demographic Variable		N=172 (%)*
Age		
Gender (female)		128 (74.9%)
Race	Black	2 (1.2%)
	White	157 (93.5%)
	Asian	2 (1.2%)
	Other	7 (4.2%)
	Hispanic	4 (2.4%)
Text Messaging Plan	Unlimited	153 (90%)
	200 messages a month	16 (9.4)
	Per message	1 (.6)
Texts sent/received per week	1-100	136 (80)
	101-500	28 (16.5)
	>500	6 (3.5)

RESULTS



RESULTS

Over 80% of individuals wanted to continue messaging after the 12 week trial and 64% took the effort to recontact the research team to sign-up for additional messaging.

DISCUSSION

All daily messaging groups improved drinking outcomes but adaptive mobile interventions for drinking appear to produce the most robust findings.

The largest effects were for changes in binge drinking. People want to continue messaging beyond 12 weeks.

Mobile text messaging interventions are a means to engage and treat non-treatment seeking individuals who are drinking heavily.

More research is needed to understand how to build the most effective mobile interventions.



A reduction in 9 drinks per week and nearly 2 binge drinking days per week results in significant cost savings in the form of increased productivity, reduced healthcare and criminal justice costs.

Based on the low cost of implementing SMS programs to the general public and the ease of engagement in these programs, they represent a promising method to both treat individuals while realizing significant cost savings.

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Disclosure: Fred Muench consults and has equity in several digital health companies including Mobile Health Interventions, Sense Health, Click Therapeutics, and Mobiquity. None of these companies were used to conduct the research.