Feasibility and Compliance with a Text Message Booster for College Drinking Interventions

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College Drinking and Interventions

- College drinking is prevalent and problematic.
  - Of U.S. college students, 56% report past month drinking; 24% report past 2-week binge drinking (≥ 5 drinks in a row in the past 2-weeks; Patrick et al., 2020)
  - Binge drinking college students are more than twice as likely to experience past-year negative consequences (i.e., blacking out, vomiting; 72% vs. 33%; Patrick et al., 2020)
- Current efforts to address college drinking are not sufficient
  - Online interventions are the most common programs used by universities to address college drinking (Riordan & Carey, 2021)
  - Although efficacious in the short-term, online intervention effects wane around three months post-intervention (Cadigan et al., 2015; Carey et al., 2012; Cole et al., 2018)
    - Some boosters after online programs have shown promise for extending these effects (Braitman & Lau-Barraco, 2018)
    - More recently, boosters after efficacious online programs have shown limited utility (Braitman et al., 2022)

College Drinking and Interventions (cont.)

- Research examining the daily etiology and context of college drinking is critical for developing more effective interventions and boosters

- Adaptive text messages (TMs) could capitalize on prior research to extend the effects of drinking interventions

  - Easily tailor to an individual's alcohol intentions/goals that day (Suffoletto et al., 2015)

  - Adaptive, just-in-time messages are more effective than randomly delivered messages (Smyth & Heron, 2016; Nahum-Shani et al., 2018)

- The current study explored the feasibility (compliance, acceptability) of an adaptive TM intervention addition to reduce college drinking

Social Context

- Many interventions include content that emphasizes social context (i.e., personalized normative feedback [PNF; Moreira et al., 2009; Neighbors et al., 2010; Neighbors et al., 2016], social support [Neighbors et al., 2019]

- Sometimes combined with behavioral approaches such as protective behavioral strategies [PBS; Reid & Carey, 2015])

  - SCT-based TM boosters could be more effective than PNF and PBS boosters alone

  - Social Cognitive Theory (SCT)-based TM interventions have successfully addressed other health behaviors (Bock et al., 2013; Fieldsoe et al., 2010; Fieldsoe et al., 2013; Kong et al., 2014; Whittaker et al., 2016)

- SCT-based TM are designed to promote healthy alcohol-related choices (e.g., drinking less, alternative activities to drinking)

You mentioned you plan on drinking with others tonight. Remember you can have fun with others with only a drink or two. You don't have to keep up to have fun!

Remember drinking games are not the only kinds of games you can play at a party. Try doing some non-drinking activities like dancing to still have a good time but avoid experiencing [reported consequence from drinking].

The Current Study

- College drinkers completed a two-phase ecological momentary assessment/intervention study

Phase 1

- College drinkers (*N*=101; 62% female) completed a baseline survey

- Then were sent two surveys daily for 21 days

Phase 2

- A subsample (*N*=20) was sent daily TMs with tailored feedback based on baseline and daily surveys

- Participants were undergraduate students, 18-30 years old, who reported consuming at least one alcoholic drink in a typical week

5

The Current Study (cont.)

Baseline

- Surveys consisted of measures of alcohol-related behaviors (e.g., PBS use, typical alcohol use), cognitions (e.g., alcohol expectancies, drinking motives), and social support

Daily Surveys

- Brief surveys including measures of positive/negative affect, intentions to drink, and self-efficacy to restrict alcohol use
  - Measures related to alcohol behaviors and cognitions were assessed on days when participants indicated intentions to drink that day

Boosters

- TMs focused on constructs supported by daily process addiction research emphasizing drinking norms, and were sent by chat-bots that responded in real time to requests, directing participants to resources (e.g., counseling center, SAMHSA helpline)
- Participants rated TMs and completed an end-of-study survey

TM Examples

- **"In the first survey, you reported drinking X drinks per week. Remember, the typical XXX ODU student reports drinking YYY drinks per week."**

- **"You said that pressure from friends or family were potential barriers to reducing drinking. Check out this worksheet with helpful tips on how to resist this pressure: https://www.rethinkingdrinking.niaaa.nih.gov/Tools/Interactive-worksheets-and-more/Stay-in-control/Drink-Refusal-Skills.aspx"**

- "You reported not liking how drinking alcohol affects your grades (missing classes or assignments, failing tests). Not drinking today could give you more time to study for class."

- **"You intend to drink later today. Have a plan with a friend to watch out for each other while you are drinking."**

- "Remember, just because others are drinking doesn't mean you have to keep up with them. Be aware of your limits."

- "You listed Cost as something you do not like about drinking. Save some money and drink less than XXX drinks!"

- **"You mentioned being judged by others - being 'that person at a party' as something you did not like about drinking. Keep this in mind when you are drinking with others."**

Results

- Participants drank 32% of days; they consumed 4+ drinks on 30% of drinking days and reported alcohol-related problems on 49% of drinking days

Compliance

- Results showed participants completed a median of 18 morning surveys (86% compliance)

Acceptability

- Participants provided ratings for 72% of TMs, indicating they were being received and TMs were rated as acceptable

Morning Survey Compliance
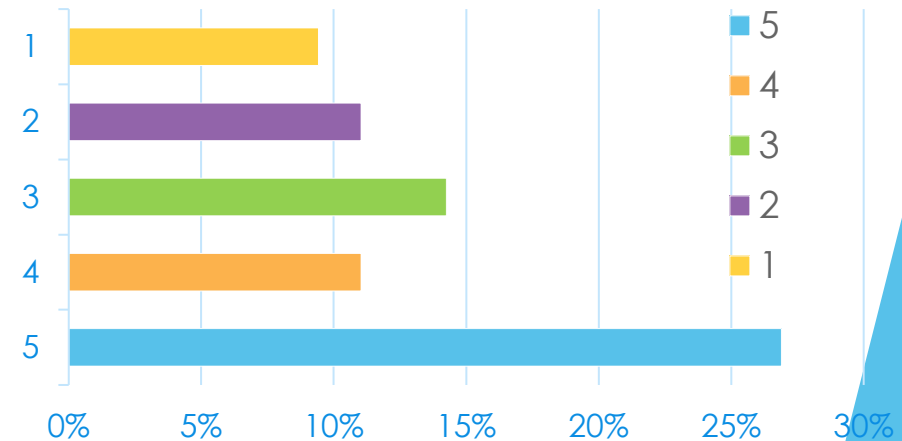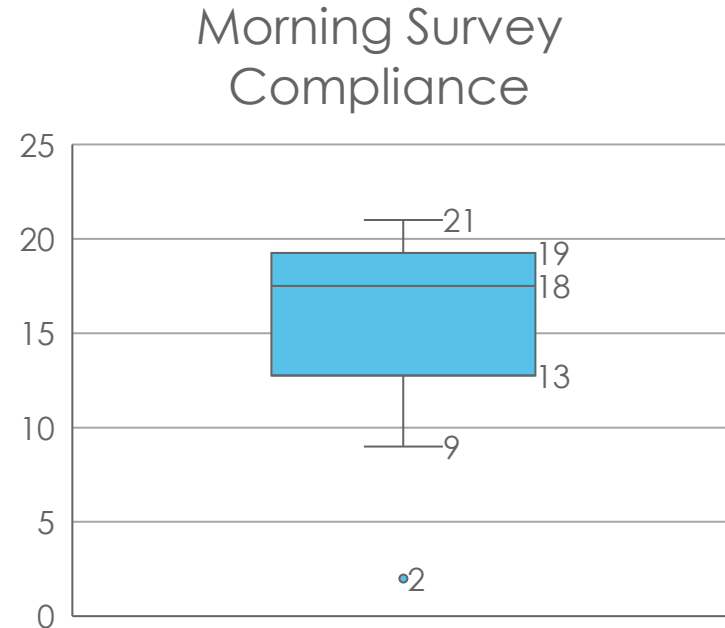
Implications

- Findings demonstrate feasibility of sending daily adaptive TMs for 21 days with college drinkers

- This study helps bridge the gap between research on daily drinking processes and practical application in college settings, with the ultimate goal of reducing college drinking and disrupting progression to alcohol use disorders among young adults

Next Steps

- Identifying messages with lower engagement or ratings
- Collecting mixed methods data to update messaging

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Questions

John Penniman
@Historiographos

I will never recover from this student email.

Good afternoon Professor Penniman,

Hope you had a great break! I was wondering if it would be acceptable to use sources from the late 1900's for our final paper (I found an interesting paper from 1994). Is there a cut off date of publication? See you tomorrow,

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