

# Associations Between Stress, Craving and Alcohol Consumption Among Women: Preliminary Results from an Ecological Momentary Assessment Study

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## INTRODUCTION

- 106.7 million women 18 or older drink alcohol in the United States, yet only 4% of women receive treatment for alcohol misuse.
- Women’s Health clinics are a promising setting to target alcohol misuse among women because it is primary resource for behavioral health.
- Mobile interventions are a promising way to deliver treatment and decrease some barriers.
- Understanding women’s alcohol, craving, and stress in real time can inform when and how to deliver mobile interventions.

## CURRENT STUDY

**Objective:** The present study examined associations between stress, craving, and alcohol consumption collected in real time on iPhones among women recruited primarily from a women’s health clinic.

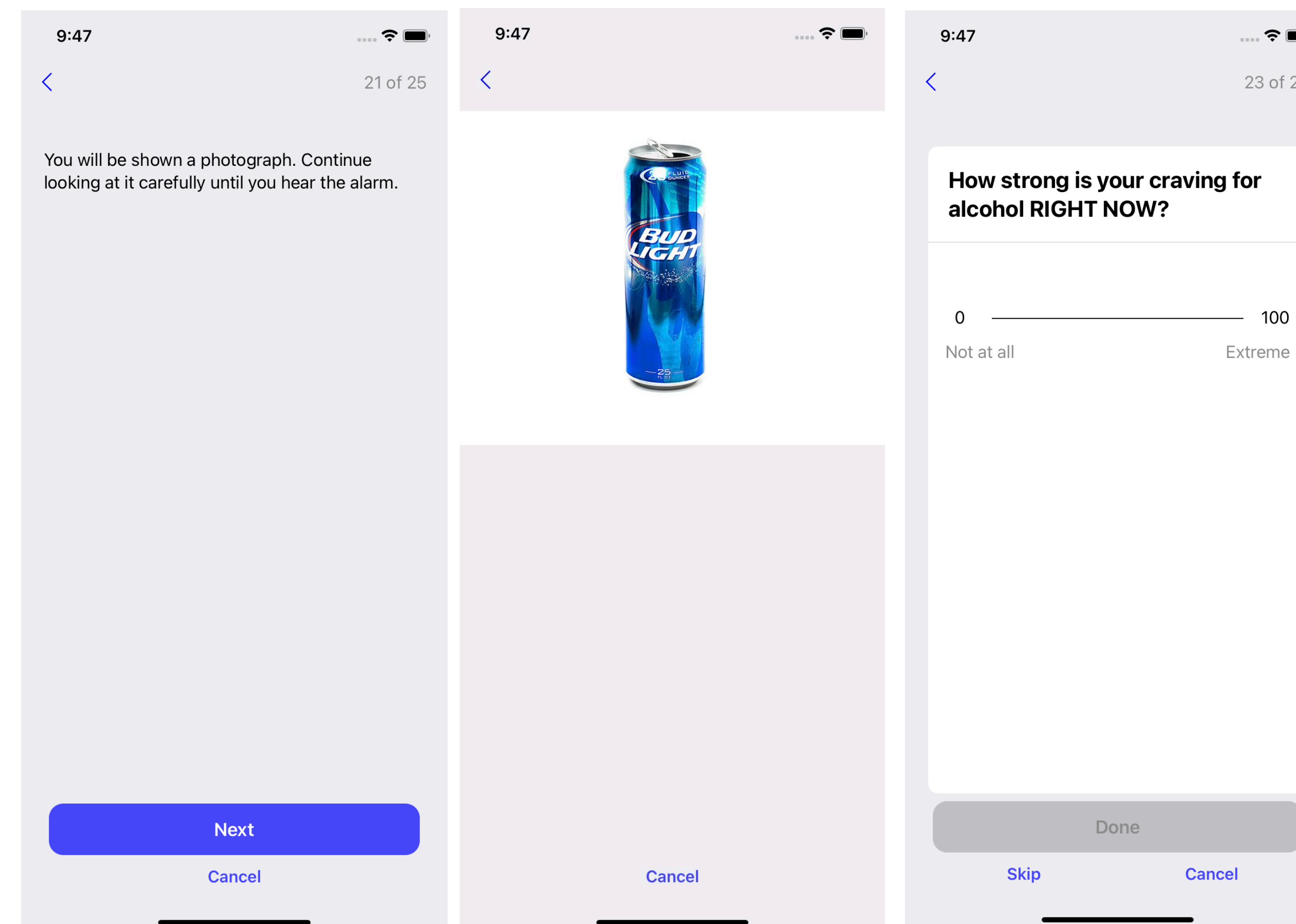
## METHODS

**Participants:** Women (N=40) were primarily recruited through cold contacting patients who had used women’s health in the past year and had indicators of alcohol misuse in their medical chart (*n* = 26). Women were also recruited from community flyers, social media, and word of mouth (*n* = 14).

•Participants reported at least one heavy drinking day per week (i.e., consuming at least four or more drinks in one day) for the last two weeks. Exclusions criteria included active psychosis, mania, suicidality, and AUD treatment.

**Procedures:** For seven days, participants completed 1 morning assessment and 4 random ecological momentary assessments (EMA).

- **Morning Assessment:** “How many drinks did you consume yesterday?”; “How many standard drinks do you plan to have today?”
- **Random Assessment:** Participants were asked if they were currently drinking (yes/no), how strong their urge to drink was and their level of stress on a 0 to 100 scale.
- **Cue Reactivity Ecological Momentary Assessments (CREMA):** one of random EMAs each day included a CREMA, which involved displaying a picture of alcohol for 30 second and then re-rating craving.



## RESULTS & ANALYSIS

- Descriptive statistics were computed. Scores were averaged across the 7 days and Person’s Correlation coefficients were computed.
- The sample was primarily white (7.5% black) with an average age of 30.4 (*SD* = 8.68). Nearly a quarter (22.5%) of the sample identified as a sexual minority.
- Craving after viewing alcohol images was subtracted from craving before CREMA to create change scores.
- 249 EMA and 196 CREMA were completed.
- Participants reported they were currently drinking during 20% of EMAs completed.
- CREMA change scores ranged from -37 to 59.

	Mean	SD
Planned Drinks	1.29	1.09
Past Drinks	2.01	1.19
Craving	22.42	19.32
Stress	32.52	16.13
Currently Drinking	.21	.18
Change in Craving	.91	9.19

	Planned Drinks	Drinks per day	Distress	Craving	Stress	Currently Drinking
Planned Drinks	-					
Drink per day	0.54**	-				
Craving	0.15	0.54**	-0.18	-		
Stress	0.13	0.35*	-0.38*	0.60***	-	
Currently drinking	0.55**	0.58***	0.18	0.23	0.13	-
Change in Craving	0.13	0.01	0.14	-0.06	-0.12	0.14

\*\*\*p < 0.001, \*\* p < .001, \*p < 0.05

## CONCLUSIONS & FUTURE DIRECTIONS

- We recruited from Women’s Health, and participants reported drinking and stress on EMA, suggesting patients may benefit from mobile health interventions.
- Average stress and average craving were related in real time. Decreasing stress and craving in real time via mobile health interventions may be an effective way to reduce alcohol misuse
- CREMA was not associated with average craving and alcohol use across the 7 days. And seems to be a safe and effective way to assess alcohol craving in women’s natural environments. Photos used in CREMA were not matched to the participants preference for alcoholic drink. This may have limited change in craving in response to photos.
- Participants reported currently drinking 20% of the time, suggesting adding harm reductions approaches delivered in real time may be useful.

### Limitations:

- This study completed initial descriptive analyses on average score across the seven days, rather than person-level analyses that capitalize on EMA.
- In addition, the sample size was small (N=40), and majority of the participants identified as white.

## ACKNOWLEDGEMENTS

This work was supported in part by NIH grant R25 DA020537.

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