
University of Cincinnati / UC Health Addiction Center (UCAC) Summer Speaker Series

Sponsored by: UCAC/UC College of Medicine

July 8, 2026
12:00 – 1:00PM

This event is being recorded.

Participants can enable captions in the taskbar under more.

University of Cincinnati/UC Health Addiction Center (UCAC)

- The Center for Addiction Research was launched in October of 2020 and expanded to the UC/UC Health Addiction Center in February 2026
- Mission: to generate new knowledge through innovative research, disseminate that knowledge through education and training, and provide high-quality, evidence-based treatment for individuals affected by addiction and related conditions. We are committed to supporting lifelong recovery and promoting dignity and respect for all individuals on their recovery journey.
- Forty-seven faculty from five UC Colleges
- UCAC: <https://med.uc.edu/institutes/addiction-center>

UCAC Communications

- Communications page:
<https://med.uc.edu/institutes/ACR/communications>
- To receive UCAC communications:
<https://listserv.uc.edu/scripts/wa.exe?SUBED1=UC-UCAC-NEWS&A=1>

The UCAC Summer Speaker Series

- Special thank you for planning and operational assistance from:

- Jen Rowe - Assistant to Dr. T. John Winhusen



- Jermaine Fields – UI/UX Lead, UC DTS Application & Software Development/COM Web Development



- Todd Schutter –Multi-Media Coordinator, UC DTS COM



Characterizing Heavy Drinking in Midlife and Older Adults via Virtual Reality Alcohol Administration and Qualitative Interviews

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Learning Objectives

- Describe hazardous drinking behavior in midlife and older adults
- Identify themes specific to heavy drinking through qualitative interviewing
- Consider the potential of virtual reality (VR) when assessing drinking behavior

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Psychiatry and Behavioral Neuroscience
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Background

Alcohol use, drinking levels

Why study drinking among midlife and older adults?

The current study

Alcohol Use

Alcohol contributes substantially to preventable morbidity and mortality

- **> 200 disease and injury conditions**, including liver disease, chronic pain, cancer, cardiovascular disease, injuries, and alcohol use disorder (AUD)
- Excessive alcohol use → **~ 178,000 deaths annually in the U.S.**, a leading preventable cause of death
- Economic costs of **>\$249 billion annually** = healthcare expenditures, lost productivity, and criminal justice involvement



Understanding Drinking Risk Levels

Drinking Pattern	Definition
Low-Risk Drinking	Men: ≤ 2 drinks/day; Women: ≤ 1 drink/day
Binge Drinking	Men: 5+ drinks; Women: 4+ drinks on one occasion (≈ 2 hours)
Heavy Alcohol Use	Men: 5+ binge episodes/month; Women: 4+ binge episodes/month
Alcohol Use Disorder (AUD)	Clinically significant pattern of alcohol-related impairment or distress; e.g., AUDIT

These definitions matter:

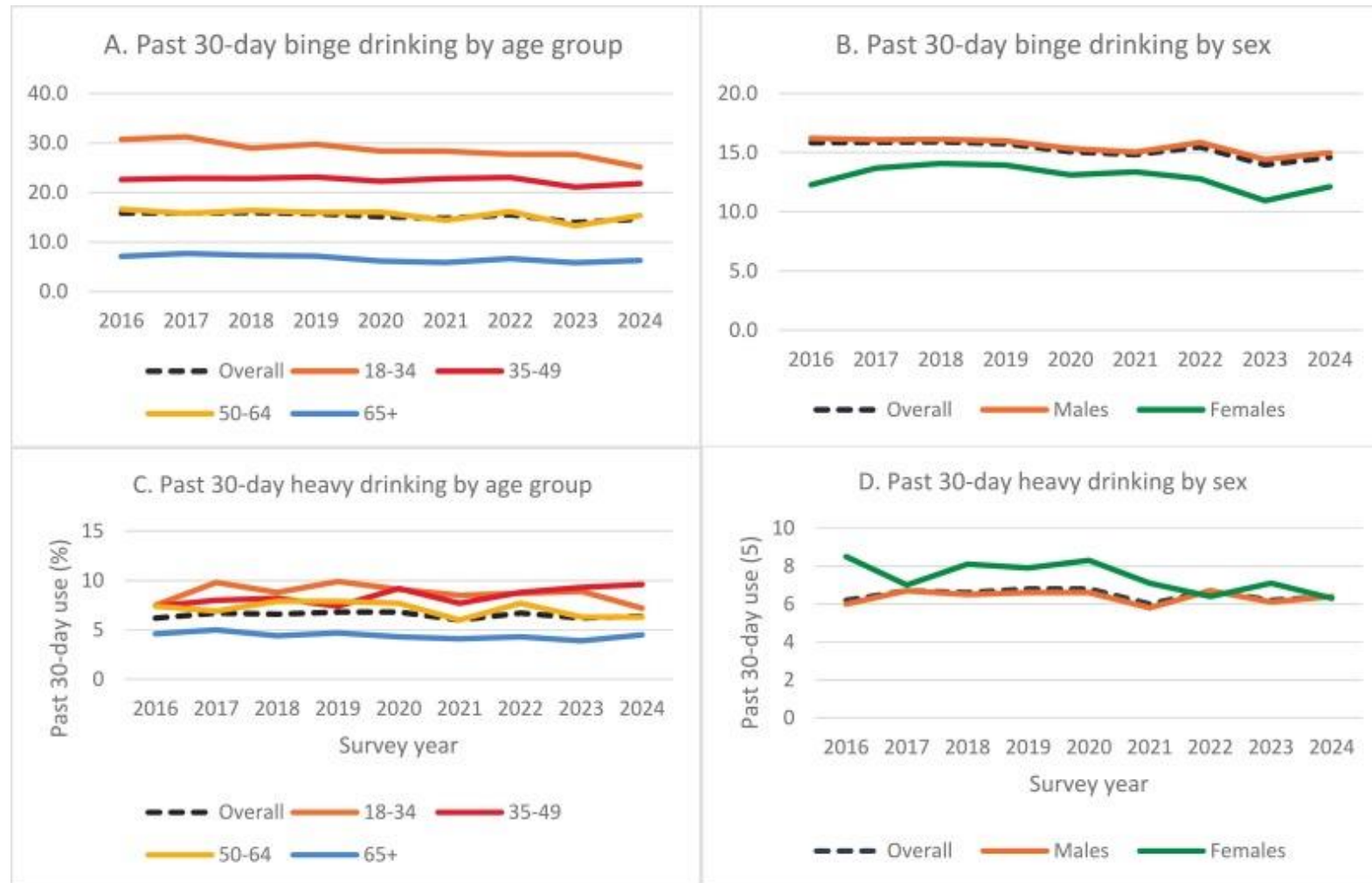
- Risk $\uparrow$ as drinking exceeds low-risk guidelines
- Repeated binge drinking is associated with $\uparrow$ risk for injury and accidents (e.g., falls), cardiovascular disease, cancer, cognitive decline, and AUD

Why Focus on Midlife and Older Adults?

- Alcohol-related harm is **an increasing public health concern among midlife and older adults (>30 yrs)**
 - Problematic drinking
≠ naturally "age out"
- Unique **developmental and health challenges**
 - Increased risk for chronic disease, including pain, cancer, cardiovascular problems, sleep disturbances, cognitive decline, and mental health concerns
- Age-related physiological changes + polypharmacy ↑ **sensitivity to alcohol**
 - **even moderate alcohol use in later life is associated with ↑ risks** of cardiovascular disease, cancer, cognitive decline, and poorer psychological well-being
- ↑ **population** of older adults

(White et al., 2023; Grant et al., 2017; Ortolá et al., 2024)

Fig. 1. Past 30-day binge drinking and heavy drinking prevalence among Veterans, stratified by age group and sex.



Beyond Consumption to Understand Mechanisms

- Most intervention targets = college-aged samples
- Most research has also focused on:
 - **How much** individuals drink (e.g., # standard drinks)
 - **Frequency** of heavy drinking (bouts per week)
 - Alcohol-related **consequences**
- Less is known about:
 - Why **midlife and older adults** drink
 - How **social relationships** influence drinking decisions
 - How **stress, loneliness, and emotional well-being** shape alcohol use
 - How adults **attempt to regulate** “moderate” (low-risk) drinking



Beyond Consumption to Understand Mechanisms

- We currently need:

Quantitative data =
how people drink (e.g.,
sip volume, interval)



Qualitative data =
why people drink (i.e.,
intervention targets)



- In short... a **mixed methods** approach

The Current Study

*What are the **biopsychosocial factors** (e.g., mood and affect, social connection, loneliness, stress, and pain) contributing to **individual differences in drinking behavior among midlife and older adults**?*

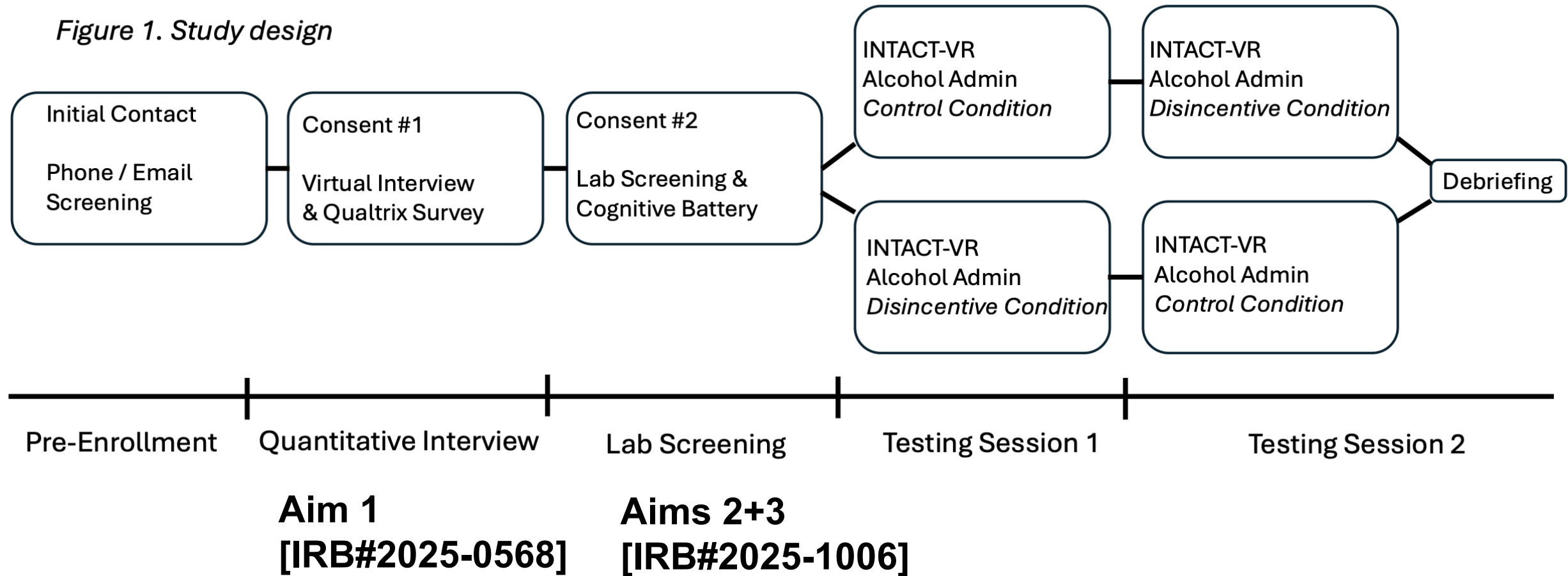
Aim 1: Determine the **motivation(s)** around drinking behavior for heavy-drinking midlife and older adults (> 30 years old) through **qualitative interview**

Aim 2: Characterize the **drinking topography** of heavy-drinking midlife and older adults (> 30 years old) by observing actual drinking behavior via *ad libitum* alcohol administration during exposure to a previously validated **virtual reality bar environment** (INTACT-VR)

Aim 3: Assess the impact of a previously validated **experimental manipulation** (i.e., disincentive) **on the drinking behavior** of heavy-drinking midlife and older adults

The Current Study

Figure 1. Study design



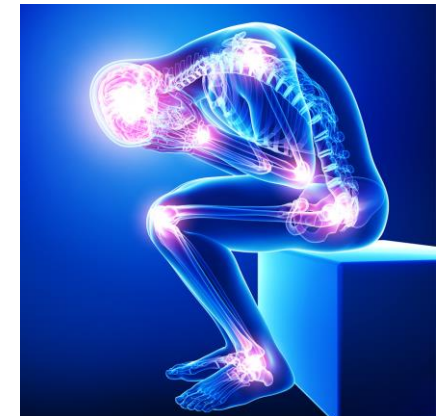
Methods

Alcohol admin in a virtual reality (VR) bar

Structured qualitative interview

Alcohol Admin in a Virtual Reality (VR) Bar

- Alcohol administration = how a person drinks = **Drinking Topography (DT)**
 - Sip volume, inter-sip interval, # of sips
 - Can inform **etiology of misuse** and prevention efforts (Caudill & Marlatt, 1975; Collins et al., 1985)
- Why a **virtual reality (VR) bar**?
 - Physical simulated bar environments = \$\$\$
 - Reproducibility
 - Control



The virtual reality (VR) bar - INTACT VR

> [Drug Alcohol Depend.](#) 2022 Feb 1;231:109246. doi: 10.1016/j.drugalcdep.2021.109246.

Epub 2021 Dec 31.

Master's Thesis

A virtual reality platform for the measurement of drinking topography

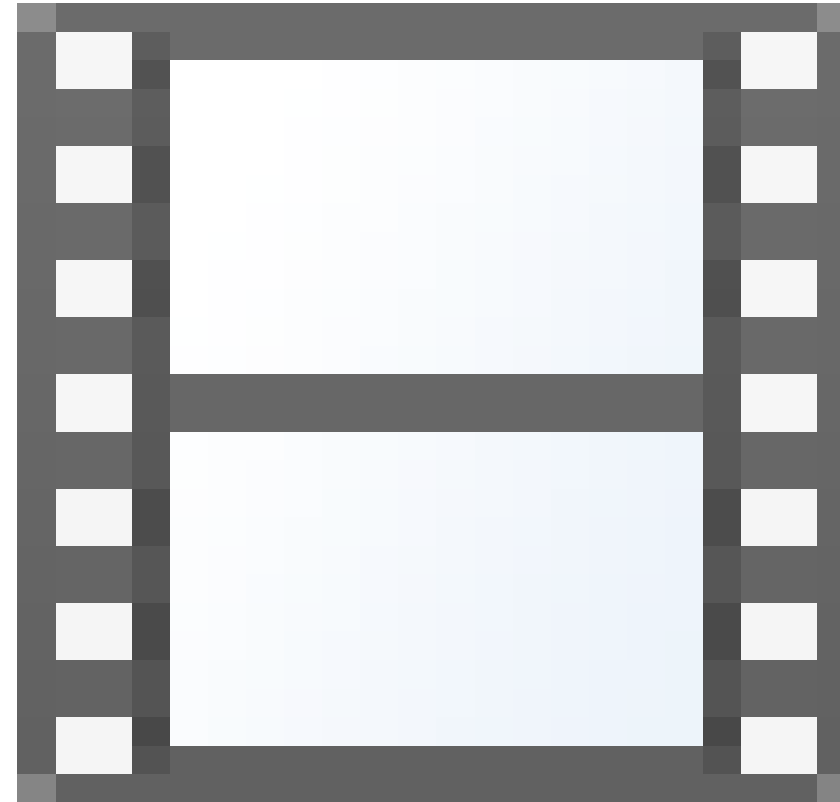
Victor J Schneider 2nd ¹, Nicholas Bush ¹, Darya Vitus ¹, Ryan W Carpenter ²,
Michael Robinson ¹, Jeff Boissoneault ³

Affiliations + expand

PMID: 34998252 PMCID: [PMC9358601](#) DOI: [10.1016/j.drugalcdep.2021.109246](#)

The virtual reality (VR) bar - INTACT VR

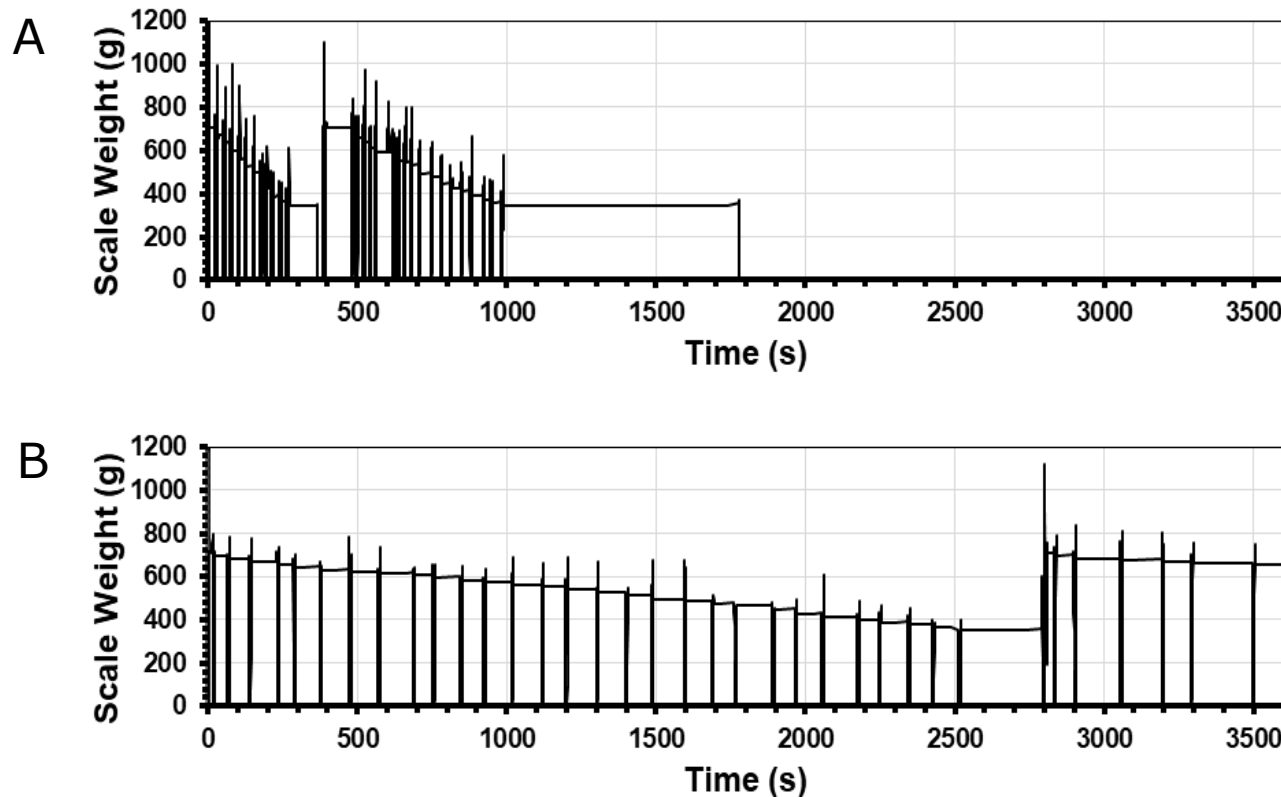
(Integrated Topography and Consumption Tracking in VR)



V1 2020-04-10

The virtual reality (VR) bar - INTACT VR

- The INTACT paradigm puts DT data in easily interpretable graphs:



A) This individual demonstrates:

- smaller average sip interval
- higher average sip volume
- greater total number of sips
- shorter overall consumption time.

B) This individual demonstrates:

- higher average sip interval
- lower average sip volume
- fewer total number of sips
- a considerably longer consumption time.

Note: A finished both beverages in *less than half the time* it took B to drink one

The virtual reality (VR) bar - INTACT VR

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Epub 2021 Dec 31.

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Master's Thesis

Doctoral Dissertation

> [Drug Alcohol Depend.](#) 2025 Aug 1;273:112704. doi: 10.1016/j.drugalcdep.2025.112704.
Epub 2025 May 16.

Validation of a virtual reality platform for the measurement of drinking topography

Victor J Schneider 2nd ¹, Nicholas J Bush ², Michael Robinson ¹, Jeff Boissoneault ³

Affiliations + expand

PMID: 40412069 DOI: [10.1016/j.drugalcdep.2025.112704](#)

The virtual reality (VR) bar - INTACT VR

Physical / simulated bar

- EDGE Lab (Dr. Leeman / Dr. Hone)

Virtual reality (VR) bar

- Dust Productions



The virtual reality (VR) bar - INTACT VR

Validation Study

- Recruited **21 participants** (13 female-identifying); Gainesville, FL community

	Mean	SD	Min	Max
Age	26.24	4.358	21	35
Education	17.33	1.912	14	20
BDI	3.43	2.638	0	11
STAI State	26.14	6.159	20	43
STAI Trait	30.00	6.116	20	43
AUDIT	10.52	3.894	4	18
QFI (oz absolute ethanol / day)	2.190	1.862	.750	8.90
Max QFI (oz absolute ethanol)	8.378	4.128	3.36	21.08
AEQ Moderate Global Positive Score	-2.390	3.077	-7.4	3
AEQ Heavy Global Positive Score	-3.200	3.243	-9.8	4.6
Grooved Pegboard (sec)	72.124	7.518	62	89.6
Digit Symbol Substitution Task (# complete)	64.38	9.335	50	81

The virtual reality (VR) bar - INTACT VR

Drinking Topography

- **Sex differences** ($p=.026$, $\eta_p^2=.288$); men drank more with each sip
- Participants with **higher weekly drinking** ($r=.457$, $p=.049$) and **recent binge drinking** ($r>.583$, $p<.006$) **reported greater average sip volume** (i.e., drank more each sip)
- **Overall reliability** was **good** (avg ICC = .758)

Participant Experience

- 97.6% had **no dizziness or nausea**
 - VR: $n=2$, only mild symptoms
- **Greater comfort in Sim Bar** than VR ($p=.000$, $\eta_p^2=.488$), but...
- No impacts of environment or manipulation on
 - **immersion** ($p>.419$, $\eta_p^2>.035$)
 - **perceived quality of instruction** ($p=.329$, $\eta_p^2=.048$)
 - **willingness to participate in similar studies in the future** ($p=.162$, $\eta_p^2=.095$)

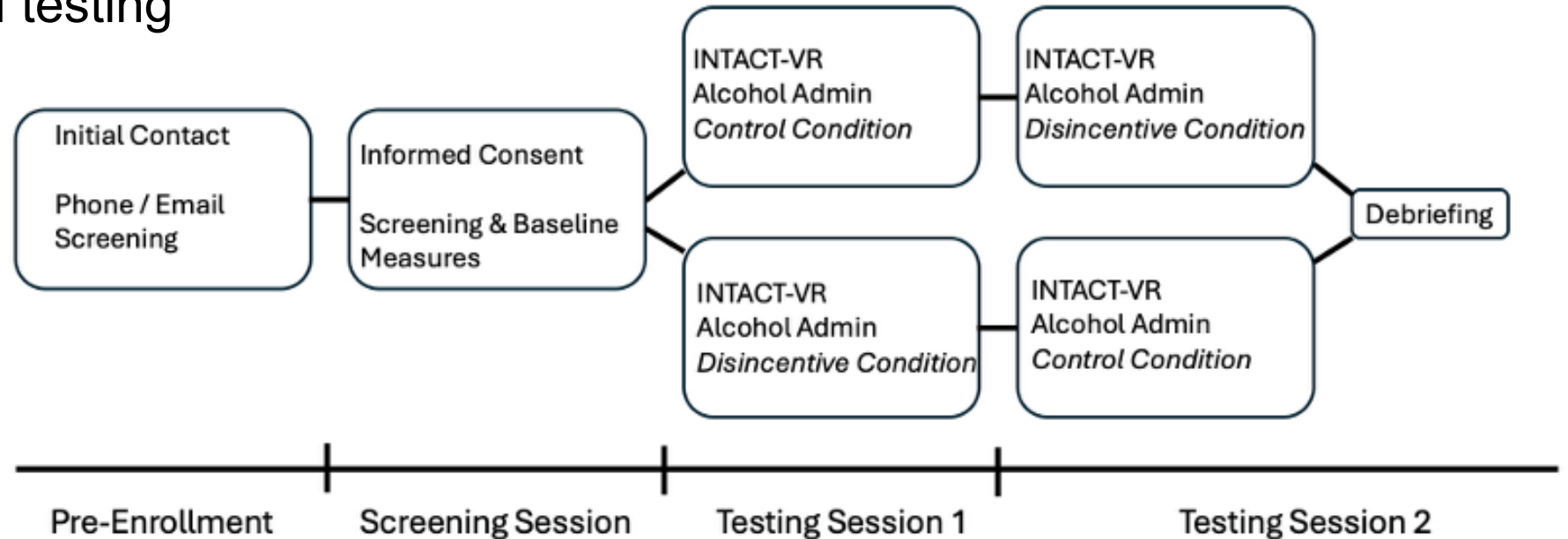
The virtual reality (VR) bar - INTACT VR

Validation Study

- Results demonstrated **first successful validation of DT using VR in adult participants engaging in hazardous drinking behavior**
- Study found
 - **moderate to excellent reliability** between Sim + VR Bar
 - **disincentive significantly impacted DT in both environments** and did not differ in impact between environments
- This study was the first to show
 - **participant drinking behavior in a VR Bar consistent with that from more traditional Sim Bar**
 - **manipulations to ↓ intensity of DT have similar effects whether in Sim or VR Bar**
- However...
 - **Experience of specific populations (e.g., older adults)** not yet studied
 - **Other interactions (pain + alcohol use)** not yet explored

The Current Study

- ~20 participants
- Heavy drinkers (single occasion 4+ drinks for women or 5+ drinks men, per NIAAA)
- ≥ 30 years old
- Three sessions over 1 week to 1 month
- Counterbalanced testing



Screening Session (1 hour)

- Consent
- Screening Measures
 - Beck Depression Inventory-II (BDI-II)
 - State-Trait Anxiety Inventory (STAI)
 - Alcohol Use Disorders Identification Test (AUDIT)
 - Alcohol Expectancies Questionnaire (AEQ)
 - Alcohol Use Questionnaire (AUQ), and
 - Family History of Alcoholism

Digit:	1	2	3	4	5	6	7	8	9
Symbol:	—	⊥	□	⊥	⊥	○	△	×	=

Samples					Test				
2	5	7	1	2	1	2	9	7	3
⊥	⊥	△	—	⊥					
1	4	3	5	9	6	8	1	2	4

...



- Cognitive Battery
 - NIH Toolbox - Dimensional Change Card Sort, flanker task
- Psychomotor Tasks
 - Digit Symbol Substitution Task
 - Grooved Pegboard
- Randomization
 - Order 1: Control – Disincentive
 - Order 2: Disincentive – Control

Uber

Testing Session (~3 hours)

- Pickup via rideshare
- Check for testing criteria, including drug / pregnancy test:
 - No tobacco use for 1 hour
 - Fasted from food for 4 hours
 - No alcohol use for 24 hours
 - No pain, headache, or nausea
- 30 min before testing: 250 cal snack (Clif Bar)
 
- Psychomotor Tasks + Condition Instructions
 - Told they will repeat the Tasks after alcohol administration
 - **‘Disincentive’** - given instructions:
 - “To avoid possible pay reductions, we offer a guideline that you consume no more than half of one beer in the course of the thirty-minute alcohol drinking period.”
 - Not required to abide by the guidelines, but doing so would improve their chances of completing the tasks successfully and avoiding possible pay reductions.
 - ‘Free-Drinking’ - not be given drinking standards, payment not linked to task

Testing Session (~3 hours)

- **Alcohol administration**
 - <10 min VR bar familiarization
 - 30 min to drink up to 2,12oz beverages (Yuengling or Angry Orchard, 5% ABV)
 - *Ad libitum* – at their own pace
 - BrAC testing regularly
- **Psychomotor Tasks (again)**
 - 'Disincentive' - \$12 withheld for each task decreased by .5 SD
- Provided a meal (i.e., JJ's)
- Return to safe BrAC
- If final visit, debriefing and compensated the total amount
 - \$20 for screening
 - \$60 for each testing
 - All withheld funds provided at end
- Ride share back home



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Assistant Professor Psychology
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Qualitative Data

Qualitative research asks **not simply *what*** people do, **but *how* and *why*** they do it

Utility in Health & Clinical Research:

- Explores how people make sense of their health experiences, behaviors, and decision-making
- Identifies beliefs, motivations, and contextual influences that standardized questionnaires may not capture
- Particularly valuable when studying complex behaviors (e.g., substance use) that are shaped by social relationships, life stage, and personal meaning
- Helps uncover mechanisms and intervention targets for measurement development, prevention, and behavior change

Proposed Framework

Health Belief Model

(Rosenstock et al., 1988; Rosenstock, 1974)

- Perceived susceptibility, personal risk
- Perceived benefits, expected advantages
- Perceived severity, seriousness
- Perceived barriers (e.g., social norms, stress, maladaptive habits)
- Cues to action, prompts for behavior change
- Self-efficacy, confidence in one's ability

Socioemotional Selectivity Theory

(Carstensen et al., 1999)

- Time perspective shapes motivations
- Social networks become more selective
- Emotion regulation becomes a higher priority
- Decision making increasingly reflects emotional well-being and quality of life
- Life transitions may further influence social priorities and health behaviors

Domains of interest:

1. Daily life and social context

- *How would you describe your social life these days?*
- *Who do you feel closest to, and how often do you interact?*

2. Alcohol use patterns and motivations

- *Tell me about your alcohol journey.*
- *What usually influences your decision to drink, or not to drink?*

3. Protective behavioral strategies

- *What do you do to reduce the risk of serious harm when drinking?*
- *Have your strategies or approach to drinking changed over time?*

4. Stress, health perceptions, and support

- *How do you usually cope with stress?*
- *Has aging (getting older) influenced the way you think about stress or your ability to cope?*

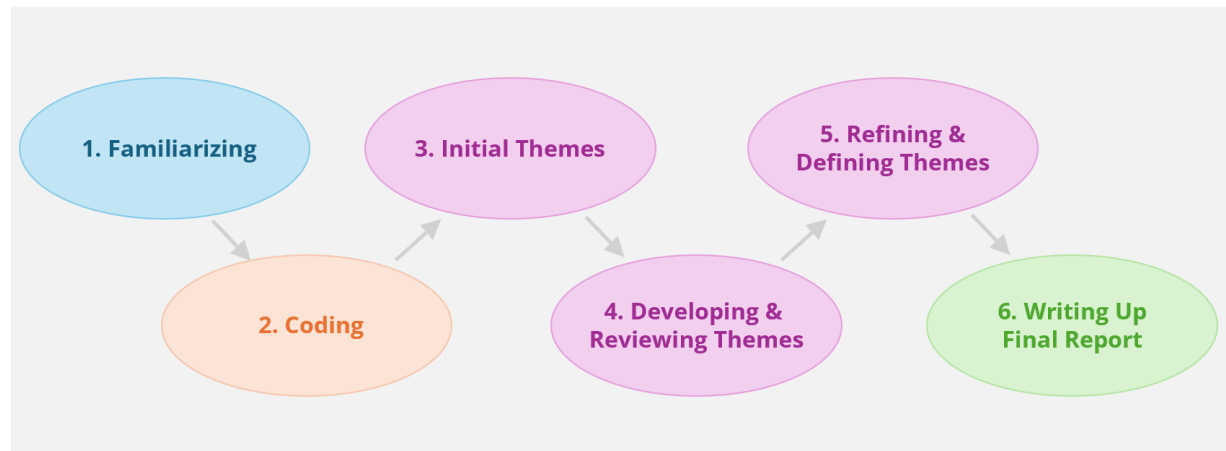
5. Subjective cognitive functioning and everyday cognition

- *In the past year, have you noticed any changes in your memory, thinking, or ability to concentrate?*
- *Do concerns about memory or thinking ever influence your health behaviors?*

Analytic Approach

Reflexive Thematic Analysis (Braune & Clarke, 2019; 2066, 2022)

- Flexible approach for identifying **patterns of shared meaning** across participant experiences
- Balances **theory-informed questions** with openness to unexpected findings
- Emphasizes **researcher reflexivity (subjectivity)** and interpretation rather than simply counting responses
- Produces themes that help explain experiences relevant to clinical practice and intervention development
- **6-phase process**



Reflexive Thematic Analysis

6 Phase Process

1. **Familiarization:** Immersing oneself in the data, reviewing transcripts, noting initial ideas, and keeping a reflexive journal to track biases and assumptions
2. **Coding:** Generating concise labels that identify interesting, meaningful features of the data
 - ***Semantic:*** explicit, surface meaning of what is said
 - ***Latent:*** underlying assumptions, beliefs, values, or social processes shaping what is said
3. **Generating Initial Themes:** sorting and grouping codes into broader themes and sub-themes
4. **Reviewing Themes:** checking if the themes work in relation to the coded extracts and the entire dataset, often refining them into a thematic map
5. **Defining and Naming Themes:** Refining the specifics of each theme, creating clear definitions and names that tell a compelling story about the data
6. **Writing Up:** Weaving together the analytic narrative and data extracts to produce a scholarly report

Preliminary Data

Preliminary coding and emerging themes

An emerging conceptual model

Preliminary Results

ID	Age	Sex	General Drinking Pattern
1003	35	M	Social drinking, stress and enjoyment motives
1004	32	M	Bereavement-related initiation, heavy social drinking
1005	35	M	Early initiation, history of problematic drinking
1006	34	M	Mixed motives, social and coping functions
1007	30	F	Health-conscious reduction in drinking after parenthood

Reflexive notes

- Alcohol meaning, social identity, connection
- Self-regulation, control, health awareness
- Aging, responsibility, developmental transitions
- Social context, social rituals, connection maintenance

Preliminary Theme #1

Drinking as Social Connection and Belonging

Key observations:

- Alcohol frequently embedded within friendships
- Clubbing, parties, sports viewing, celebrations
- Drinking described as facilitating social interaction
- Some participants rarely drank alone



Illustrative quote: *"I like drinking with my friends... conversation is more fun."*

Interpretation: Drinking serves relational rather than purely intoxicating functions

Preliminary Theme #2

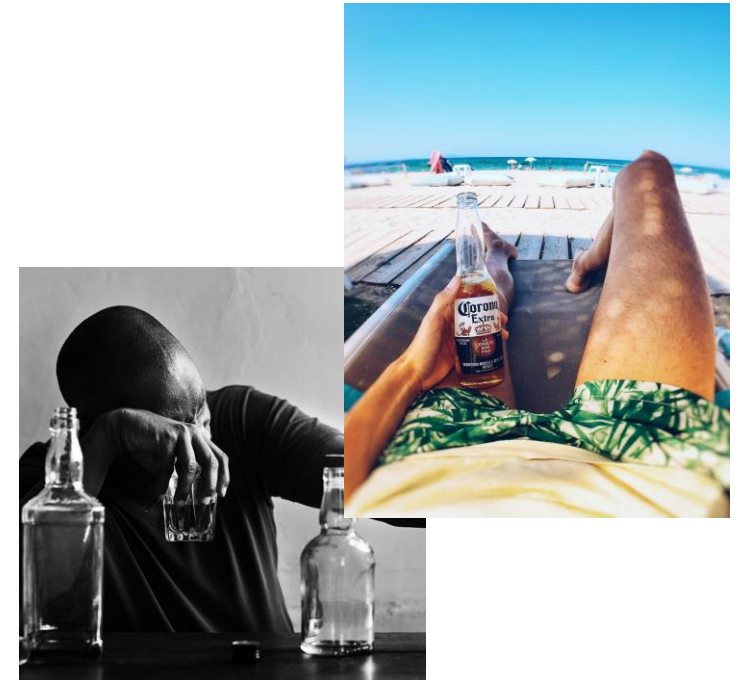
Drinking as Emotional Relief and Stress Management

Examples:

- Coping with grief
- Escaping thoughts and worries
- Reducing work stress
- "Clearing my head"

Illustrative quote: *"When I drink, I'm free from thoughts"*

Interpretation: Alcohol is often viewed as a short-term emotional regulator despite awareness of negative consequences



Preliminary Theme #3

Maturation and Changing Drinking Motives

Participants described:

- Less drinking than younger years
- Greater awareness of consequences
- Shift from intoxication to moderation
- Increased responsibility

Why?:

- Parenting
- Employment
- Long-term health goals

Illustrative quote: *"I don't need to drink to get drunk anymore"*



Preliminary Theme #4

Self-Regulation and Protective Strategies

Strategies identified:

- Using Uber, ride share, designated driver
- Drinking with trusted friends, family
- Limiting quantity
- Drinking more slowly
- Avoiding shots
- Non-alcoholic beverage substitution
- Monitoring next-day obligations

Interesting observation:

- Protective strategies varied substantially across participants
- Some reported deliberate planning; others reported almost none
 - Both to abstain and to drink heavily



Preliminary Theme #5

Social Relationships as Both Risk and Protection

Risk:

- Drinking-centered social activities
- Peer drinking norms

Protection:

- Emotional support
- Accountability
- Alternative coping resources

Examples:

- Close friends
- Spouses
- Family members



Connection to SST: Selective investment in meaningful relationships

Emerging Conceptual Model



Moderated by:

- Age, developmental stage
- Health concepts, disease/conditions
- Social support, socioeconomic position
- Parenting, caregiving roles, professional responsibilities

What appears important/novel so far?

- Midlife adults are **not a homogeneous drinking group**
 - Need more data on older adult drinkers
- Similar drinking behaviors emerge from **different motivations**
- **Health concerns, caregiving responsibilities** appear increasingly salient
- Drinking often reflects **tension** between:
 - Enjoyment and connection
 - Health and responsibility
- This complements quantitative findings by explaining **why** people drink, **not simply how much**

Conclusion

Next steps

Future directions

Next Steps

- Complete **preliminary thematic analysis**
 - Train independent coders
 - Refine themes and subthemes
 - Develop thematic map
- **Recruit** adult participants for Aims 1-3
- **Compare themes** across age, sex, and drinking patterns; w/quantitative data
- **Integrate findings** into future intervention and harm-reduction research

Future Directions

- Potential contribution: **a developmental model of adult drinking motives and decision-making**
- Aligns with NIAAA Strategic Plan 2024–2028, under the following priority areas:
 - Advancing research on **alcohol's effects across the lifespan**
 - Encouraging a **whole-person**, integrated approach to health by developing and testing innovative prevention, screening, and treatment strategies for alcohol use and co-occurring conditions
 - **Leveraging technology and digital health tools** to improve alcohol-related research, intervention reach, and health equity

[NIAAA Strategic Plan 2024-2028](#)

- R01 Resubmitted (7/1/26; Co-I, site PI Garcia) *Event-Level Predictors of Heavy Drinking in Midlife: Implications for Tailored Intervention*

Potential Funding Mechanisms:

- National Institute on Alcohol Abuse and Alcoholism (NIAAA) – R01: Alcohol Health Services Research (Clinical Trial Optional; PAR-25-245).
- Alcohol Treatment, Pharmacotherapy, and Recovery Research (R01 Clinical Trial Required; PA-25-163).
- Screening, Brief Intervention, and Referral to Treatment or Prevention (SBIRT/P) for ATOD Use in Health Disparity Populations (R01 Clinical Trial Required; PAR-26-001).
- Dissemination and Implementation Research in Health (R21 Clinical Trial Optional; PAR-25-143).
- Blueprint MedTech Translator (UG3/UH3 Clinical Trial Optional; PAR-25-383).

Acknowledgements

- UC/UC Health Addiction Center Pilot Research Program
- PETAL Research Team
 - Raina Rindani, B.S. (Medical Student Scholar Program)
 - Sahana Sivan
 - Nina Ricci, B.S.
- Collaborators
- All of you!

Thank you!

Q&A

Please unmute to ask a question OR type your question in the chat box.

Thank you for joining us!

- Please take a few moments to complete the survey form. Scan the QR code below or use the survey link provided in the chat box, both will be emailed.
- The form is **required** to complete if requesting CE credit for Psychology, Social Work, or Counseling.



Towards Personalized Medicine for Opioid Use Disorder: Analyses of Data from the Veterans Health Administration

- Wednesday, August 12, 2026: 12:00 – 1:00 PM
- Dr. Corey Hayes and Dr. Daniel Bebo



[Registration website: med.uc.edu/institutes/ACR/summer-speaker-series/speaker-series-2026](https://med.uc.edu/institutes/ACR/summer-speaker-series/speaker-series-2026)