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Feature

Sober-Curious Young Americans May Be Changing the Conversation Around Alcohol

According to data from the 2023 National Survey on Drug Use and Health, 68% of adults ages 21 and older in the United States drink alcohol.[1] At the same time, researchers believe that the recent "sober-curious" movement may be encouraging some people to reevaluate their relationship with alcohol and the impact that drinking can have on their health.[2]

Being sober curious, or SC, focuses on a more mindful approach to alcohol consumption. The movement encourages people to examine how much, when, and why they drink alcohol. By focusing attention on health and well-being, engaging in SC approaches may provide opportunities to help people make informed decisions about their drinking behavior.

In a similar vein, some people are choosing to engage in observances, such as "Dry January" or "Sober October," in which people take a break from alcohol consumption. During these breaks, people often share their experiences of going alcohol-free through social media platforms, like Instagram and Facebook. Researchers call these alcohol-free intervals "temporary alcohol abstinence challenges," or TAACs. Research from international contexts, primarily in the United Kingdom and Australia, has found that TAAC participants may be motivated by concerns about the effects of alcohol on their health. Many of these TAAC participants report benefits, such as positive effects on sleep, weight, and self-rated health, and reduced levels of alcohol consumption following a TAAC.

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A recent study supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) examined participation in TAACs and the SC movement among young adults ages 18–29 in the United States. Researchers from RAND and the University of Southern California conducted the study.[3]

The researchers surveyed 1,659 young adults who were in their mid-20s. Past research has shown that young adults often engage in high-risk drinking behaviors, such as binge drinking. Young adults also have some of the lowest rates of treatment engagement for alcohol-related problems.

The survey assessed the characteristics of these young adults and their awareness of and engagement in the SC movement or TAACs. Overall, 9% of the young adults surveyed were familiar with the SC movement, and 7% had participated in a TAAC in the past year. Young adults who were familiar with both the SC movement and TAACs were more likely to have engaged in recent heavy drinking, had higher Alcohol Use Disorders Identification Test (AUDIT)* scores, were more likely to have recently used cannabis, experienced more alcohol and cannabis consequences in the past year, and were more likely to have received substance use treatment in the past year. These young adults also reported greater readiness to reduce or stop drinking.

The findings also showed that half of TAAC participants reported drinking less following the challenge. Even after the challenge period concluded, 15% of participants reported they continued alcohol abstinence.

Among young adults who received any treatment for substance use in the past year, a third were aware of the SC movement, and almost one in five had participated in Dry January or similar abstinence challenges.

The study authors concluded that both the SC movement and TAACs have the potential to engage young adults who want to stop or reduce their alcohol consumption. Both the SC movement and TAACs focus on well-being and the benefits of behavior change and, thus, share elements with evidence-based, brief behavioral interventions, such as motivational interviewing. The growing popularity of these movements may also help to destigmatize non-drinking for people who choose not to drink in certain social settings. Taken together, the study findings suggest that SC- and TAAC-like movements may be versatile and effective in changing drinking behavior among young adults.

In addition, abstinence challenges in particular may help encourage young adults to consider entering treatment for alcohol misuse. The authors noted that coordinated TAAC initiatives could integrate referrals to sustained, evidence-based treatment interventions that support people in reducing or eliminating their alcohol consumption during and after the TAAC period.

The authors believe that future research in this area could help gauge the efficacy of the SC movement and TAACs, and identify approaches that may be more effective in linking young adults to interventions and resources to help them reach their goals.

“The sober-curious phenomenon, as well as TAACs, provide opportunities for individuals to evaluate their relationship with alcohol,” said NIAAA Director George F. Koob, Ph.D. “Many people need help for alcohol use disorder or alcohol misuse, and these movements have helped to create a cultural space for exploring and changing their drinking behavior.”

**The AUDIT, developed by the World Health Organization, is a simple method of screening for excessive alcohol use and assessing for alcohol-related problems.*

References:

[1] Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. 2023 National Survey on Drug Use and Health. Table 2.26B—Alcohol use in past year: among people aged 12 or older; by age group and demographic characteristics, percentages, 2022 and 2023. [cited 2024 Jul 30]. Available from: https://www.samhsa.gov/data/report/2023-nsduh-detailed-tables

[2] Lamb S. Bartender, make mine a mocktail. Young Americans are drinking less. Will alcohol-related diseases decline? [Internet]. Harvard Public Health. 2024 Jan 3 [cited 2024 Jun 27]. Available from: https://harvardpublichealth.org/policy-practice/can-the-sober-curious-trend-change-u-s-alcohol-consumption/

[3] Siconolfi D, Tucker JS, Pedersen ER, Perez LG, Dunbar MS, Davis JP, Rodriguez A, Seelam R, D'Amico EJ. Sober curiosity and participation in temporary alcohol abstinence challenges in a cohort of U.S. emerging adults. J Stud Alcohol Drugs. 2024 Mar;85(2):201-9. PubMed PMID: 37917023

News From the Field

Study Confirms Real-World Reliability of a Key Tool for Alcohol Screening

The Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) is a key, three-question tool used by health professionals to screen people for alcohol misuse. Although previous clinical research has validated use of the AUDIT-C, its test–retest reliability—a measure of the consistency of a test's results over time—has not been evaluated in routine-care conditions with adult primary care patients.

Now, scientists supported by the National Institute on Alcohol Abuse and Alcoholism have conducted a study to examine the AUDIT-C's reliability in real-world conditions. The team also aimed to evaluate the screening tool across demographic subgroups (defined by age, sex, race, and ethnicity) and options to complete the AUDIT-C online or in a clinic setting.[1]

AUDIT-C Questions[2]

Q1: How often did you have a drink containing alcohol in the past year?

Q2: How many drinks did you have on a typical day when you were drinking in the past year?

Q3: How often did you have six or more drinks on one occasion in the past year?

Claire B. Simon, M.D., of the University of Washington in Seattle, led the study, which used electronic health record (EHR) data from Kaiser Permanente Washington. More than 18,000 adult primary care patients completed two AUDIT-C screens at 1 to 21 days apart as part of routine care in 2021.

Dr. Simon and her colleagues reported that AUDIT-C screens completed in routine care and documented in EHRs demonstrated "excellent" test–retest reliability. Test–retest reliability evaluates the consistency of results from the same measure or screening tool when it is given at two different times to a group of individuals. Test–retest reliability is high when there are similar results across separate test administrations.

The authors also showed that the AUDIT-C demonstrated "good" to "excellent" test–retest reliability across various demographic groups, as well as when screens were completed in the clinic or online through patient portals.

The study found that reliability was somewhat higher when patients completed the AUDIT-C both times using online patient portals, as compared to completing the screen in-clinic or when mixing the two modes of screening.

The findings also indicated that reliability was slightly lower for American Indian/Alaska Native (AI/AN) patients and multiracial patients. Clinicians and researchers should keep this finding in mind when working with patients who are members of AI/AN or multiracial groups and may consider seeking additional sources of information about these individuals' alcohol consumption beyond the AUDIT-C.

The results of this study support the utility of the AUDIT-C for identifying alcohol misuse among patients in routine-care settings.

References:

[1] Simon CB, McCabe CJ, Matson TE, Oliver M, Bradley KA, Hallgren KA. High test–retest reliability of the Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) questionnaire completed by primary care patients in routine care. Alcohol Clin Exp Res (Hoboken). 2024 Feb;48(2):302–8. PubMed PMID: 38099421

[2] Bush K, Kivlahan DR, McDonell MB, Fihn SD, Bradley KA. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Arch Intern Med. 1998 Sep 14;158(16): 1789–95. PubMed PMID: 9738608

Noteworthy

National Institute on Alcohol Abuse and Alcoholism Publishes New Strategic Plan

In the spring of 2024, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) released its strategic plan for fiscal years 2024–2028, Advancing Alcohol Research to Promote Health and Well-Being. The strategic plan considers the long-term priorities of the alcohol research field while remaining flexible to adapt to emerging public health needs and scientific opportunities. It charts a course for the next five years and outlines the goals and priorities that will guide NIAAA's research through a dynamic balance of basic, translational, and clinical research relevant to NIAAA's mission. Specifically, the plan focuses on four research goals:

1. Elucidate the biological mechanisms and consequences of alcohol misuse
2. Identify patterns, trends, and public health impact of alcohol misuse
3. Prevent and reduce alcohol misuse, alcohol use disorder, and associated consequences
4. Improve diagnosis and expand treatment of alcohol use disorder and alcohol-related conditions

Several cross-cutting research themes are also covered in the plan:

- Advancing diversity, equity, inclusion, and accessibility in the alcohol research enterprise
- Advancing research on women's health
- Applying a life course approach to alcohol research
- Encouraging a whole person, integrated approach to health
- Innovating alcohol research and care through data science

The strategic plan also describes NIAAA's cross-cutting research programs on fetal alcohol spectrum disorders and on alcohol and HIV.

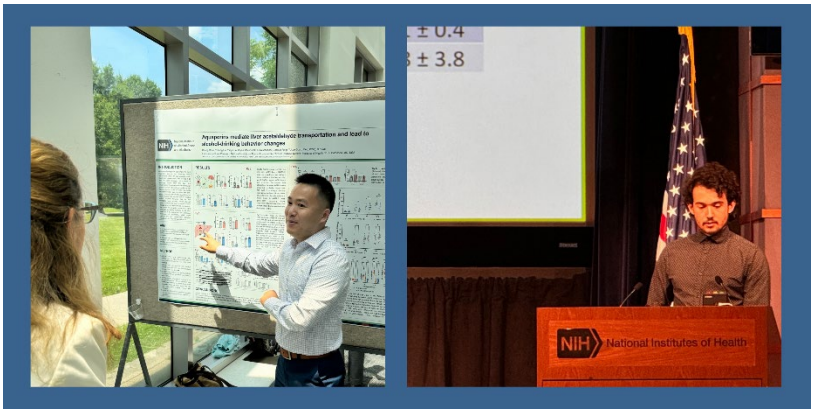
"This strategic plan will guide NIAAA for the next five years of research and discovery," said NIAAA Director George F. Koob, Ph.D. "In addition to continuing to support and conduct cutting-edge research on the prevention, diagnosis, and treatment of alcohol-related problems, we will continue to build our research capacity and ensure good stewardship of the public's investment."

The NIAAA Strategic Plan is available to view or download through the NIAAA website.

NIAAA@Work

National Institute on Alcohol Abuse and Alcoholism Trainees Host Research Symposium

The National Institute on Alcohol Abuse and Alcoholism's (NIAAA) Trainee Engagement Committee convened for the NIAAA 3rd Annual Trainee Research Symposium on June 4–5, 2024. About 100 fellows, interns, principal investigators, staff, and others attended the hybrid event, which highlighted the work of research trainees in NIAAA's intramural research program.



Credit: Pinaki Bhattacharjee, Ph.D.

Each day of the two-day symposium featured talks and in-person poster presentations by NIAAA trainees and fellows on a broad array of topics, from alcohol-induced inflammation and organ injury to neurobiology and factors that play a role in alcohol misuse. The symposium also featured keynote lectures by Edith V. Sullivan, Ph.D., of Stanford University School of Medicine and by Scott L. Friedman, M.D., of Icahn School of Medicine at Mount Sinai, as well as summary remarks by Adolf Pfefferbaum, M.D., Ph.D., of SRI International.

"The depth of thought and effort that the trainees put into organizing the symposium was evident, and the individual presentations were excellent," said Patricia A. Powell, Ph.D., Deputy Director, NIAAA. "I am impressed with the leadership and professionalism shown by our up-and-coming scientists."

A highlight of the symposium was a poster competition in which research trainees and fellows enthusiastically presented their work. In the Postbaccalaureate (postbac) and Predoctoral Fellow Division, awardees included:

- Natalie Johnson (postbac, mentor: Resat Cinar, Ph.D.)
- Jessica Sloane (postbac, mentor: Vijay Ramchandani, Ph.D.)
- Olivia Carpenter (postbac, mentor: Andrew Holmes, Ph.D.)

Award recipients in the Postdoctoral (postdoc) and Research Fellow Division were:

- Bryan Mackowiak, Ph.D. (postdoc, mentor: Bin Gao, M.D., Ph.D.)
- Mariam Melkumyan, Ph.D. (postdoc, mentor: Hee-Yong Kim, Ph.D.)
- Cheng Chen, Ph.D. (postdoc, mentor: Bin Gao, M.D., Ph.D.)

“Training the next generation of scientists is critical to the NIAAA mission and a high priority of our intramural research program. The symposium was a huge success, and we are proud of what our trainees and fellows have accomplished,” said David Lovinger, Ph.D., Scientific Director, Division of Intramural Clinical and Biological Research, NIAAA.

Spotlight

Diversity, Equity, Inclusion, and Accessibility Efforts Gain Traction at National Institute on Alcohol Abuse and Alcoholism

A year after the National Institute on Alcohol Abuse and Alcoholism (NIAAA) announced the selection of Dawn Wayman, M.H.S., as the institute’s first Scientific Diversity Officer (SDO), NIAAA continues to advance the principles of diversity, equity, inclusion, and accessibility (DEIA) both internally and in its scientific programs.

As leader of DEIA efforts at NIAAA, Ms. Wayman regularly engages the NIAAA community through a broad array of activities to foster an organizational culture that integrates DEIA into everything it does, from building and enhancing cultural competence across NIAAA, to cultivating a diverse scientific and administrative workforce, to enhancing the NIAAA minority health and health disparities research portfolio.

Recently, NIAAA highlighted its commitment to DEIA through its Strategic Plan for Fiscal Years 2024-2028, which was released in May 2024. Advancing DEIA in the alcohol research enterprise is a cross-cutting research theme that is integral to all NIAAA strategic plan goals.

Research suggests that diversity promotes creativity and fosters scientific innovation. Additionally, supporting a diverse workforce that includes historically underrepresented populations enables the research to be informed by a wide range of perspectives and to capitalize on the full range of talent in the nation. A core component of NIAAA’s goal of building a robust research capacity is cultivating and sustaining a highly skilled and diverse scientific and administrative workforce.

To this end, NIAAA is working to expand outreach about NIAAA and National Institutes of Health (NIH) research training programs to diverse communities. By engaging with professional organizations and academic institutions, NIAAA hopes to increase the awareness of alcohol research training

opportunities among students and trainees from diverse populations, including training programs within NIAAA's intramural research program.

NIAAA is also seeking partnerships with Minority Serving Institutions (MSIs). For example, NIAAA's intramural research program has established a collaboration with Howard University on graduate-level training in basic and clinical research that will serve as a model for future efforts in enhancing diversity in the scientific workforce. NIAAA supports collaborative research and biomedical workforce development partnerships between research centers in MSIs and NIAAA-supported Alcohol Research Centers.

NIAAA also participates in programs led by other NIH Institutes and Centers (IC). One such partnership is the NIH Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) program established and led by the National Institute of General Medical Sciences. MOSAIC facilitates the transition of promising postdoctoral researchers from diverse backgrounds into independent faculty careers. NIAAA participates with other ICs in the NIH Diversity Supplement program, which provides administrative supplements to NIH research grants to support research experiences for individuals from diverse backgrounds across the career development continuum.

"It's been an exciting year of DEIA work at NIAAA," said Ms. Wayman. "One of the challenges of DEIA work is that we rarely achieve success overnight. It's a long and slow process. Yet, I am happy with the gains we are making at NIAAA. We have been very intentional in setting aside the time to assess where we are, identify our gaps, and plan our next steps together. I am confident we will see several of our planning efforts gain traction over the next year."

Five Questions With …

Andrew Holmes, Ph.D., Senior Investigator, Laboratory of Behavioral and Genomic Neuroscience, National Institute on Alcohol Abuse and Alcoholism

1. *You are the senior investigator of the National Institute on Alcohol Abuse and Alcoholism's (NIAAA) Laboratory of Behavioral and Genomic Neuroscience. How would you describe the work of your laboratory and the importance of such basic science in helping us to understand addiction and alcohol's effects on health?*

My lab's work seeks to learn more about the core mechanisms through which the brain recognizes, learns about, and effectively responds to challenges that organisms encounter when navigating their world to fulfill basic needs. This includes needs such as obtaining food and avoiding danger. These capabilities are often compromised to some degree in neuropsychiatric conditions, including alcohol use disorder (AUD). Hence, our ultimate objective is to be able to better understand the differences in the physiological processes of individuals suffering from these conditions, with a view to developing new and improved ways to alleviate their distress.

2. *What do you consider your laboratory's most significant research accomplishments?*

We have been fortunate to have contributed to the field in a number of areas that turned out to be convergent with what others have reported since. An early observation we made was that stress and alcohol both have detrimental effects on the structure and function of the prefrontal cortex, an area of the brain responsible for executive functions, such as making decisions and regulating emotions. We've also identified specific circuitry in the brain through which communication between the prefrontal cortex and another hub for emotional recognition, the amygdala, is critical for tamping down fear and controlling compulsive alcohol-seeking behaviors. More recently, we've begun to shed light on how neurons in these brain regions exhibit organized patterns of activity that may reflect how the brain "represents" memories and associated emotional states, such as fear.

3. *What projects are you currently working on?*

The lab is currently working on a number of projects broadly related to clarifying the neural circuit mechanisms underlying behavioral processes relevant to AUD, such as the regulation of responses to threats and the control of compulsive-like behaviors. This is a particularly exciting time to be doing neuroscience of this kind because of the availability of technologies that allow us to monitor and manipulate the brain (e.g., by optically controlling neuronal activity), often with unprecedented precision. Our current research aims to leverage these new technologies to reveal new insights into long-lasting questions about the role of brain systems in orchestrating complex behaviors, such as decision-making in the face of risk.

4. *As a senior investigator, you mentor young scientists. In what ways do you find NIAAA's intramural research program to be well-suited as a training ground for the next generation of alcohol researchers?*

The facilities and broad, rich intellectual environment of NIAAA's intramural program provide a vibrant place for ambitious young scientists to immerse themselves in basic, translational, and clinical alcohol-related research. The program offers an excellent "sandbox" opportunity to learn and grow, and in many ways, provides a unique place to be exposed to and become experienced in state-of-the-art research in the field. This is further enhanced by an active community, often organized and led by trainees themselves, that enables trainees to share their work with peers and the wider National Institutes of Health (NIH) intramural program. My advice to current NIAAA trainees is—even on those tougher days when your experiments don't work—to enjoy your time at this special place. Once you move on in your career, I bet you'll look back on your NIH days fondly!

5. *Your work focuses on understanding the causes of AUD and comorbid neuropsychiatric conditions, such as stress, trauma, and anxiety disorders. What led you to this field?*

From my earliest days as an undergraduate psychology student, I have been intrigued by why it is we differ in the way we deal with the inevitable stressors that life throws at us, sometimes by turning to alcohol and the adverse consequences that it has the potential to bring. As a trainee, I also learned that science has the potential not only to help us understand this variation at the level of the brain, but in the process of increasing this understanding, to point to ways in which the deleterious effects of stress and drinking can be therapeutically alleviated. In the years since, the importance and urgency of this work has been brought into focus by the growing burden of stress-related conditions and AUD that we see around the world.