Alcohol, Other Drugs, and Health: Current Evidence

JULY-AUGUST 2019

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INTERVENTIONS & ASSESSMENTS

No Evidence for Efficacy of Brief Interventions for Cannabis Use in Healthcare Settings

Researchers summarized the available evidence for the efficacy of brief interventions for cannabis use in healthcare settings.

- Of the 9 studies identified, 8 were conducted in the US (of these, 1 also recruited participants from Australia, Brazil, and India); 1 was conducted in Chile.
- Most studies were conducted in primary care or emergency departments (n=8).
- The majority of interventions were based on motivational interviewing (n=8).
- In a meta-analysis, there were no effects of brief interventions on cannabis ASSIST scores, or on the number of days of cannabis use in the past 30 days, both in the short term (≤ 3 months) and long term (>3 months).
- For outcomes not included in the meta-analysis (cannabis use frequency, getting high on cannabis, abstinence, consequences, driving under the influence), evidence was mixed and limited.

Comments: Evidence for the efficacy of brief interventions for at-risk drinking cannot be extrapolated to other substances; when non-treatment-seeking people with cannabis use are identified by screening in healthcare settings, there is currently no evidence for efficacy of brief interventions. Nevertheless, these results do not imply that cannabis use should not be addressed in primary care settings since knowing about a patient's cannabis use may influence clinical care.

Nicolas Bertholet, MD, MSc

Reference: Imtiaz S, Roerecke M, Kurdyak P, et al. Brief interventions for cannabis use in healthcare settings: systematic review and meta-analyses of randomized trials. *J Addict Med*. 2019 [Epub ahead of print]. doi: 10.1097/ADM.0000000000000527.

New Tool Can Predict Patients at Low Risk for Return to Sustained Alcohol Use Following Early Liver Transplantation

Among patients with alcohol-related liver disease receiving early liver transplantation (e.g., without a specific period of abstinence), a return to sustained alcohol use post liver-transplant is associated with a 5-fold increased risk of death compared with abstinence. Researchers sought to develop a predictive tool to identify patients pre-transplant with low risk for sustained alcohol use post-transplant using retrospective data on 134 patients with severe alcohol-related hepatitis who received early liver transplantation. Alcohol use in the post-transplant period was obtained primarily through self-report and categorized.*

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New Tool Can Predict Patients at Low Risk for Return to Sustained Alcohol Use Following Early Liver Transplantation (continued from page 1)

- Of 134 patients, 72% were male and 82% were Caucasian. The median time of abstinence pre-liver transplant was 54 days, and the median Model for End-Stage Liver Disease-Sodium (MELD-Na) score was 34.
- 129 patients survived to home discharge post-transplant and were followed for a median of 1.6 years. Of this group, 26% self-reported any alcohol use post-transplant; 21 individuals had a "slip" while 13 had sustained alcohol use.
- 4 variables were associated with sustained alcohol use post-liver transplant and comprise the Sustained Alcohol Use Post-Liver Transplant (SALT) score (range 0–11):
  - >10 drinks per day at initial hospitalization (+4 points);
  - ≥2 prior "failed" rehabilitation attempts (+4 points);
  - Any history of prior alcohol-related legal issues (+2 points);
  - History of non-tetrahydrocannabinol illicit substance use (+1 point).
- A SALT score ≥5 demonstrated a positive predictive value of 25%; a SALT score <5 demonstrated a 95% negative predictive value for sustained alcohol use post liver transplant.

* No alcohol use; a "slip" (defined as any alcohol use with recovered sobriety); or sustained alcohol use (defined as a minimum duration of 100 days).

Comments: Using 4 objective pre-transplant variables, the SALT score can identify candidates with severe alcohol-related hepatitis who are at low risk for sustained alcohol use following early liver transplantation. Utilization of this tool may not only inform appropriate patient selection for early transplantation among individuals with severe alcohol-related hepatitis, but can also guide risk-based interventions in the post-transplant period.

Seonaid Nolan, MD

Reference: Lee BP, Vittinghoff E, Hsu C, et al. Predicting low risk for sustained alcohol use after early liver transplant for acute alcoholic hepatitis: the Sustained Alcohol Use Post-Liver Transplant score. *Hepatology*. 2019;69(4):1477–1487.

HEALTH OUTCOMES

People Who Inject Drugs Delay Seeking Help to Avoid Stigma

People who inject drugs (PWID) often experience stigma from health care professionals. This negatively impacts the care they receive and may influence their approach to seeking help. Researchers used content from interviews conducted as part of a study on the acceptability of various HIV prevention efforts among PWID in the Northeast US to investigate how stigma impacts PWID healthcare utilization.

- Of the 33 PWID interviewed, most (88%) reported experiencing stigma. Three related themes emerged from the interviews: 1) previous experience with stigma in health care settings; 2) internalizing and resisting stigma; 3) strategies to avoid stigma.
- Participants reported that stigma and assumptions about "med-seeking" led to lower quality of care and rushed encounters.
- Many participants reported feeling shame and embarrassment about their substance use, while others described resistance or indifference to stigma.

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People Who Inject Drugs Delay Seeking Help to Avoid Stigma (continued from page 2)

- Reported strategies to deal with stigma included: 1) delaying healthcare; 2) not disclosing substance use; 3) downplaying need for pain medication; and 4) seeking alternative services.

Comments: This study provides some insight into the perspective of PWID and the ways in which stigma affects their approach to healthcare and leads to harm. These results reinforce the need for further efforts to reduce stigma in PWID in healthcare settings.

Darius A. Rastegar, MD

Reference: Biancarelli DL, Biello KB, Childs E, et al. Strategies used by people who inject drugs to avoid stigma in healthcare settings. *Drug Alcohol Depend*. 2019;198:80–86.

Parents Underestimate the Risk of Secondhand Exposure to Aerosol From Electronic Cigarettes

Secondhand smoke from tobacco use is a substantial health risk to children. Secondhand aerosol from electronic cigarettes ("e-cigarettes") contains volatile carcinogenic compounds and leaves deposits of nicotine on surfaces, also presenting health risks to children. This study surveyed parents that use these products regarding their indoor smoking and vaping policies.

- Parents with dual tobacco and e-cigarette use were more likely to have a smoke-free than vape-free home policy (64% versus 26%); those with e-cigarette use were more likely to have a smoke-free than vape-free car policy (35% versus 23%).
- Less than one-third of parents were advised by their child's pediatrician to have a smoke-free home or car.

Comments: E-cigarettes entered the market heralded as the solution to the problem of smoking, and are often inaccurately portrayed as harmless. The name "vapes," which suggests that their residue is merely water vapor, is misleading. This study found that parents were more likely to protect their children from secondhand cigarette smoke than e-cigarette aerosol, suggesting that they believe exposure is safe for their children. Pediatric primary care is an opportunity to correct these misconceptions and educate parents, though currently few parents are receiving advice to limit their children's exposure.

Sharon Levy, MD, MPH

Reference: Drehmer JE, Nabi-Burza E, Hipple Walters B, et al. Parental smoking and e-cigarette use in homes and cars. *Pediatrics*. 2019;143(4).

Alcohol Consumption and the Risk of Colorectal Cancer

Researchers conducted a meta-analysis of 16 studies to explore the relationship between alcohol consumption and invasive colorectal cancer (CRC). Overall, the studies included 4,276 CRC cases and 15,802 controls from 5 case-control and 11 nested case-control studies. The authors used only the average level of alcohol intake and did not have data on drinking patterns or type of beverage. The sample consisted of: 41% people with no alcohol consumption (including people who formerly consumed alcohol and those who never had); 47% reporting an average consumption of 1.1 to 28 g alcohol/day; 6% reporting 28.1 to 42 g/day; and 6% reporting >42 g/day.

- Results showed a significant J-shaped curve across multiple spline and restricted cubic-spline models; there was an 8% reduction in risk of CRC for people who consumed up to 28 g/day (about 2 drinks/day), and a 25% increased risk for people reporting an average of >42 g/day (about 3 or more drinks/day).
- Results did not vary by age, obesity, smoking, or family history of CRC.

Comments: Despite the inability to judge the effects of drinking pattern (heavy episodic versus "moderate") or type of beverage—and the inclusion of people who formerly consumed alcohol in the non-drinking category—these results suggest a J-shaped curve for the relation of alcohol intake to CRC. It is possible that the results would have been different if additional factors had been considered, including social determinants (for which it is difficult to control) that may skew otherwise linear associations between alcohol and risk of cancer towards the J-shaped curve.

R. Curtis Ellison, MD

Reference: McNabb S, Harrison TA, Albanes D, et al. Meta-analysis of 16 studies of the association of alcohol with colorectal cancer. *Int J Cancer*. 2019 [Epub ahead of print]. doi: 10.1002/ijc.32377.

HIV & HCV

Motivational Interviewing Might Reduce Drinking or Drug Use in Some Patients With HIV

Brief clinician advice can reduce self-reported drinking. But more complex patients such as those with HIV infection may require a more intensive intervention. Investigators at a large US health system enrolled in a randomized trial 614 adults with HIV infection who reported drinking ≥3 (≥4 for men) standard drinks on any one day in the past 12 months. Participants were assigned to one of three interventions (all received usual care), the latter two adapted for HIV infection: 1) usual care (in-clinic electronic medical record-prompted screening followed by clinician brief advice to quit or cut down, or a referral for specialty treatment); 2) usual care plus one 45-minute in-person and two 20-minute phone motivational interviewing sessions delivered by research clinicians; or 3) electronically mailed personalized feedback and recommendations for treatment or online resources from the patient's clinician. The latter two addressed drugs, too. Follow-up was 95% at 12 months.

- At follow-up, there were no differences in the number of participants drinking ≥4 (≥5 for men) standard drinks in the past month.
- In a secondary analysis, other drug use was lower in the motivational interviewing group (12%) than in the other two groups (22-23%).
- Among a sizeable subgroup who reported low importance of reducing drinking (score 1–3 on a 1–10 scale), motivational interviewing was associated with less heavy drinking (9% versus 17% for email and 24% for usual care).

Comments: Overall, this was a null trial regarding effects of emailed feedback or motivational interviewing over brief advice. Secondary and subgroup analyses, however, generate the hypotheses that motivational interviewing might be more efficacious for reducing drug use, and for those who assign lower importance to reducing drinking (the latter being a group consistent with that for whom motivational interviewing was developed).

Richard Saitz, MD, MPH

Reference: Satre DD, Leibowitz AS, Leyden W, et al. Interventions to reduce unhealthy alcohol use among primary care patients with HIV: the health and motivation randomized clinical trial. *J Gen Intern Med*. 2019 [Epub ahead of print]. doi: 10.1007/s11606-019-05065-9.

Reductions in Substance Use Associated With Improved Viral Outcomes in People Living With HIV

Of the ~1 million people living with HIV (PLWH) in the US, many report the use of illicit substances. This longitudinal cohort study assessed the impact of reduced use of: illicit opioids, methamphetamine/crystal, cocaine/crack, and cannabis—whether or not abstinence was achieved—on viral suppression among PLWH with substance use. The data sources were from research studies of people with HIV at HIV center of excellence primary care clinics, people using opioids around Washington, DC, people leaving jail or prison in Illinois and DC, and males with injection drug use in Vietnam. Multivariable models were used to examine the impact on viral suppression and of relative effect size reductions in viral load of decreasing the use of each substance and of abstinence.

- Abstinence was associated with higher odds of viral suppression (odds ratio [OR], 1.4–2.2) and lower relative viral load (ranging 21–42% by substance) for all 4 substance categories.
- Reduced frequency of illicit opioid or methamphetamine/crystal use without abstinence was associated with viral load suppression (OR, 2.2 and 1.6, respectively).
- Reduced frequency of illicit opioid or methamphetamine/crystal use without abstinence was associated with lower relative viral load (47% and 38%, respectively).

Comments: This observational study confirms prior findings that abstinence from illicit substance use among PLWH is associated with viral suppression, but adds to the growing harm reduction literature that reductions in substance use, even in the absence of abstinence, also have an positive impact on viral suppression.

Jeanette M. Tetrault, MD

Reference: Nance RM, Trejo MEP, Whitney BM, et al. Impact of abstinence and of reducing illicit drug use without abstinence on HIV viral load. *Clin Infect Dis*. 2019 [Epub ahead of print]. doi: 10.1093/cid/ciz299.

Low Opioid Agonist Treatment Engagement Among Veterans With and Without HIV With New Diagnosis of OUD

Opioid agonist treatment (OAT) is associated with improved clinical outcomes among people living with HIV (PLWH) with opioid use disorder (OUD). Early access to treatment is vital to reducing harm associated with OUD. In a national sample of veterans with and without HIV, researchers examined the prevalence of and factors associated with OAT initiation and the impact of HIV status to inform future policy and practice interventions to promote OAT. The primary analysis was to investigate predictors of OAT initiation. The authors identified 19,698 new clinical encounters resulting in a diagnosis of OUD in the Veterans Aging Cohort Study between 2000–2012, and examined factors associated with OAT initiation within 30 days of an OUD diagnosis.

- Only 5% of patients (with and without HIV) with a new diagnosis of OUD initiated OAT within 30 days.
- Patients with a psychiatric diagnosis (adjusted odds ratio [aOR], 0.54), HIV (aOR, 0.79), and rural residence (aOR, 0.56) had a lower likelihood of OAT initiation within 30 days.
- African-American patients (aOR, 1.60), those with an alcohol-related diagnosis (aOR, 1.76), a diagnosis year 2005–2008 relative to 2000–2004 (aOR, 1.24), and patients with HCV (aOR, 1.50) had a greater likelihood of initiating OAT within 30 days.
- Predictive factors were similar in total sample and PLWH only.

Comments: Although this study was conducted using data from 2000–2012 and therefore doesn't reflect the recent opioid epidemic and current OAT access levels, especially buprenorphine, the findings confirm other studies suggesting that people with HIV and OUD are less likely to initiate timely OAT. Models of care need to be developed to improve OAT access among all patients, and quality measures for OUD care need to be standardized.

Jeanette M. Tetrault, MD

Reference: Wyse JJ, Robbins JL, McGinnis KA, et al. Predictors of timely opioid agonist treatment initiation among veterans with and without HIV. *Drug Alcohol Depend*. 2019;198:70–75.

PRESCRIPTION DRUGS & PAIN

Naltrexone Does Not Increase Pain Among Individuals With OUD and Mild–moderate Chronic Pain

Chronic pain is common, especially among individuals with opioid use disorder (OUD). There is increasing evidence that opioids often provide little benefit for treatment of chronic pain, but less is known about the effect of opioid antagonists on chronic pain. Researchers used data from a randomized-controlled trial comparing sublingual buprenorphine (BUP) and extended-release naltrexone (XR-NTX) for treatment of *DSM-IV* opioid dependence. The trial had two phases: a 12-week randomized phase followed by a 36-week open-treatment phase with the patient's treatment of choice. Participants were assessed for pain every 4 weeks. Chronic pain was not an exclusion criterion, but individuals with severe chronic pain were not encouraged to participate.

- Of 232 individuals assessed for eligibility, 159 were randomized to treatment with BUP or XR-NTX; 143 received at least one dose of medication and attended at least one assessment. During the open-treatment phase, 117 of 122 participants chose to receive XR-NTX.
- At week 4, 81 participants reported chronic pain and 55 reported no pain.
- During the 12-week randomized phase, the number of individuals reporting no pain slightly increased; mean pain scores did not significantly change. Assessed pain did not significantly differ between treatment groups.
- During the 36-week open-treatment phase, there was no significant change in assessed pain and those who switched from BUP to XR-NTX did not report an increase in pain.

Comments: Among individuals with OUD who volunteered for a study of XR-NTX and did not have severe chronic pain, initiation of XR-NTX did not result in increased pain. This suggests that XR-NTX is a reasonable option for those with mild–moderate chronic pain and raises further questions about the efficacy of opioid agonists for the treatment of chronic pain.

Darius A. Rastegar, MD

Reference: Latif ZH, Solli KK, Opheim A, et al. No increased pain among opioid-dependent individuals treated with extended-release naltrexone or buprenorphine-naloxone: A 3-month randomized study and 9-month open-treatment follow-up study. *Am J Addict.* 2019;28:77–85.

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