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PAPER PRESENTATIONS

Concurrent Use and Simultaneous Use of Nicotine and Marijuana: A Cross-National Examination among College Students in Six Countries

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Background: Marijuana and
tobacco/nicotine use (including

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electronic nicotine delivery systems) is highly prevalent on college campuses and recent research suggests that many college students engage in either co-use (i.e., use of both substances within a similar time period [month, year, lifetime]) and/or simultaneous use (i.e., use of both substances during the same use time so that the effects overlap) of these substances. Clinically, co-use and simultaneous use of marijuana and tobacco/nicotine has been found to be associated with greater substance use problems, poorer mental health, and poorer physical health. However, the vast majority of studies have been conducted among North American samples (i.e., the U.S. and Canada) and less is known about rates of co-use and simultaneous use of these drugs among other countries/regions. The goal of the present multi-country study was to examine prevalence rates of marijuana use, tobacco/nicotine use, co-use, and simultaneous use of these drugs among a large sample of college students from six countries (Canada, U.S., Argentina, Spain, South Africa, and England). Further, we examined differences in self-reported physical health symptoms (i.e., general health; immune function, colds, coughs) based on endorsement of past 30-day co-use (or not) and simultaneous use (or not) of these

drugs. *Methods:* A total of 4,801 (U.S., [$n = 2,171$; 59.6% female], Canada [$n = 392$; 74.7% female], South Africa [$n = 495$; 79.4% female], Spain [$n = 837$; 72.3% female], Argentina [$n = 700$; 70.3% female], England [$n = 206$; 80.6% female]) college students completed a longitudinal study examining the effects of COVID-19 on mental health and substance use patterns. To test study aims, data from the baseline survey were analyzed to examine cross-national comparisons of distinct patterns of substance use: 1) lifetime marijuana and nicotine [separated across cigarette and e-cigarette] use, 2) past 30 day use of marijuana and nicotine [separated across tobacco and e-cigarettes] use, 3) past 30 day co-use [combined marijuana and cigarette and/or e-cigarette use], and 4) among co-users past 30 day simultaneous use. Further, ANOVAs were conducted to compare co-use (versus not) and simultaneous use (versus co-use only) groups on self-reported past 3-month physical health symptoms. *Results:* There were many cross-country differences found in lifetime marijuana use (lowest in Canada), cigarette use (lowest in North America), and e-cigarette use (highest in Europe) prevalence rates. Among individuals who endorsed lifetime use, prevalence rates of past 30-day use of these drugs were largely similar across countries. Past 30-day co-use of these drugs was prevalent in each country (nearly 50% in each country) with some minor country differences. Among past 30-day co-users, simultaneous use was widely prevalent (over 50% in each country) with minor country differences. ANOVA results indicated

differences among simultaneous versus co-use individuals on self-reported coughing symptoms (greater frequency of coughing symptoms among simultaneous users). *Conclusions:* College students from around the world endorse high rates of co-use and simultaneous use of marijuana and tobacco/nicotine. On college campuses, co-use and simultaneous use of these drugs should be a target of clinical prevention/intervention efforts and the mechanisms underpinning the unique harms of these use patterns need to be clarified.

Tobacco and Cannabis Co-Use among Adolescent and Young Adults With and Without a Cancer History

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Background: Approximately 38% of adolescent and young adult (AYA; diagnosed ages 15-39) cancer survivors are tobacco users. No research has explored the co-use of tobacco and cannabis among AYA survivors, despite evidence suggesting that co-use

in other populations reduces tobacco cessation rates. We described the prevalence of tobacco and cannabis single product and co-use among AYA survivors and their peers, and tested associations between tobacco + cannabis co-use, major depression, and nicotine dependence. *Methods:* We analyzed responses from the 2015-2019 National Survey on Drug Use and Health surveys ($N = 733$ AYA survivors; $N = 26,530$ peers; ages 16-34). We determined the prevalence of tobacco (cigarettes, cigars, or smokeless tobacco) and cannabis use and co-use in the past 30 days and compared single product use and co-use between AYAs with and without cancer using second-order Rao-Scott chi-square tests and weighted multivariable logistic regression. We then tested the association between tobacco + cannabis co-use and nicotine dependence (Nicotine Dependence Syndrome Scale) in AYA cancer survivor tobacco users ($N = 228$), exploring if past-year major depression moderates this relationship using weighted multivariable logistic regression. *Results:* The prevalence of past month single product use was similar between survivors and their peers for tobacco (30% vs. 29% for survivors vs. peers, respectively) and cannabis (18% vs. 19% for survivors vs. peers, respectively). Among tobacco users, AYA survivors were significantly less likely than their peers to report tobacco + cannabis co-use in univariable models (29% vs. 39%; OR = 0.64, 95% CI = 0.44, 0.94). In multivariable logistic regression there was no association between cancer history and tobacco + cannabis

co-use (aOR = 0.83, 95% CI = 0.54, 1.28). Compared to those 16-20 years old, older AYAs (26-34 years) were less likely to report past 30-day tobacco + cannabis co-use (aOR = 0.65, 95% CI: 0.52, 0.82). Overall, 33% of AYA tobacco users with cancer were nicotine dependent and 25% had a major depressive episode in the past year. Nicotine dependence (36% vs. 32%) and major depression (30% vs. 23%) were similar between tobacco-only and tobacco + cannabis co-users. Tobacco + cannabis co-use was not associated with nicotine dependence (aOR = 1.29, 95% CI = 0.56, 2.98) and there was no evidence of effect modification of major depression with this association. *Conclusions:* Despite having lower rates of tobacco + cannabis co-use among AYAs with a history of cancer compared to those without, the rate of tobacco + cannabis co-use is high among AYA survivors who use tobacco. Unlike previous research in non-AYA and non-survivor populations, tobacco + cannabis co-use was not associated with nicotine dependence, suggesting levels of nicotine dependence are similar for tobacco only and tobacco + cannabis co-users. Increased rates of tobacco + cannabis co-use among the youngest subgroup of AYAs suggests that targeted interventions may be needed in this population. Tobacco use represents a significant problem among survivors already at high risk for poor outcomes, and these results highlight the importance of considering co-use of cannabis when developing interventions.

**Incidental or Purposeful Nicotine
Exposure and its Effects on Cotinine
as a**

**Result of Cannabis Blunt Use Among
Young Black Men in America**

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Black men experience more smoking related illnesses compared to other groups, and they are disproportionately burdened with tobacco-related deaths. Cannabis use occurs at higher frequency among Black individuals in the United States and this is especially true for individuals who identify as Black males. There are growing concerns that cannabis and tobacco co-use may contribute to the tobacco-related disparities observed among Black men. In the present study, we aimed to assess the field-measured cotinine levels associated with blunt use and explore how these changed according to blunt construction characteristics. To understand the unique impact of blunt use on nicotine exposure, we only engaged participants who did not smoke cigarettes or use e-cigarettes. We were also interested in establishing how closely self-reported tobacco exposures matched cotinine levels assessed with saliva samples among young Black men. In addition, we examined several variables that may

predict blunt use, such as cannabis and blunt cravings, and positive and negative affect, and how they may affect cotinine levels. There were 46 participants who completed the assessment, reported no tobacco use apart from co-use with cannabis during the 7-day recall period, and provided two saliva samples. Higher cotinine concentrations were significantly associated with total number of blunts reported during the previous 7 days, T1: $r(44) = .31, p = .04$; T2: $r(44) = .29, p = .047$, and whether blunt smoking occurred on the most recent day, $r(44) = 0.32, p = 0.03$. Additionally, the estimated quantity of marijuana smoked between collection of the first and second saliva samples (approximately 10 hours) was significantly correlated with cotinine measured in the second sample, $r(43) = .426, p = .004$. Cotinine was significantly associated with several scores for the cannabis and blunt craving questionnaires, including the MCQ total score, T1: $r(44) = .359, p = .014$; T2: $r(44) = .324, p = .028$, MCQ compulsivity subscale, T1: $r(44) = .395, p = .014$; T2: $r(44) = .407, p = .005$, MCQ expectancy subscale, T1: $r(44) = .319, p = .031$; T2: $r(44) = .291, p = .050$, BCQ total score, T1: $r(44) = .476, p = .001$; T2: $r(44) = .459, p = .001$, BCQ emotionality subscale, T1: $r(44) = .390, p = .007$; T2: $r(44) = .396, p = .006$, BCQ expectancy subscale, T1: $r(44) = .409, p = .005$; T2: $r(44) = .404, p = .005$, BCQ compulsivity subscale, T1: $r(44) = .440, p = .002$; T2: $r(44) = .378, p = .010$. As expected, cotinine was also significantly associated with the CUDIT, T1: $r(44) = .319, p = .031$; T2: $r(44) = .291, p = .050$. The CUDIT was

also significantly associated with calculated cannabis used between baseline and follow-up, $r(43)=.306$, $p = .046$. Of interest, many of the participants reported that they did not consider themselves tobacco users, even though their cotinine levels were similar to those of people who use nicotine regularly. Thus, it is likely that incidental or purposeful exposure to nicotine through the use of blunts does present a risk for misuse of nicotine and developing nicotine use disorder. Future research should examine interventions to reduce blunt use or alter blunt construction to offset the negative effects of this incidental or purposeful nicotine exposure.

High Potency Cannabis and Nicotine Co-Use Among High School Students in Colorado

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Introduction: As cannabis markets have evolved, high potency cannabis products are more readily available and frequently co-used with tobacco. Higher potency forms of cannabis are associated with more negative outcomes and may especially affect adolescents. Moreover, many consumers believe that cannabis products and nicotine vaporizers pose little threat to health. In this study, we examine rates of high potency cannabis and tobacco co-use and attitudes towards vaping nicotine among high-school aged youth in Colorado. *Methods:* Data in this study was obtained from the Healthy Kids

Colorado Survey. High school aged youth ($N = 6941$) completed a survey asking about frequency and method of administration for both cannabis and tobacco products. Attitudes towards nicotine vaporizers were assessed by asking about the perceived harm of the vaporizers and the secondhand vapor. Data were collected from students at randomly selected public high schools in the state of Colorado. Data were analyzed using R version 4.2. *Results:* The average age of the sample was 16.0 ($SD: 1.19$). In the sample, 47% identified as female, 69% as heterosexual, and 70% as White. Approximately 20% of the sample only used nicotine products, 41% only used cannabis products and 39% used both. Among participants who consumed cannabis, those who co-used nicotine were more likely to use high potency cannabis (67%) as opposed to those who only consumed cannabis (43%; $\chi^2 = 437.0$, $p < 0.01$). Students who only used cannabis products (40%) were more likely to believe daily nicotine vapor use posed a great risk to health as compared to students who only used nicotine products (28%) and co-users (31%; $\chi^2 = 353.1$, $p < 0.01$). Students who only used cannabis products (21%) were more likely to believe secondhand nicotine vapor use posed a great risk to health as compared to students who only used nicotine products (13%) and co-users (15%; $\chi^2 = 686.2$, $p < 0.01$). *Conclusions:* Cannabis use is popular among high school students in Colorado and high potency cannabis appears to be more popular among students who co-use nicotine and cannabis products as compared to students who only consume cannabis.

Students who only consumed cannabis appear to have more negative attitudes towards nicotine products. More research is needed to determine what types of interventions may affect attitudes towards nicotine and high potency cannabis use.

Vaping Nicotine and Cannabis on the Same Occasion is Linked to Increased Vaping Consumption Among Young Adults: A Smartphone-Based Daily Diary Study

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Significance: Vaping both nicotine and cannabis in the past 30 days (co-vaping) is common among young adults. It is unclear which co-vaping patterns may increase substance use and dependence. We examined day-level associations between vaping patterns with vaping quantity. *Method:* Daily assessments of vaping

behaviors were collected via smartphone for 30 consecutive days among 111 young adults (aged 18-29, vaping nicotine/cannabis at least 20 days during the past month) in California, US, in 2023-2024. Participants reported daily use of nicotine/tobacco (e.g., e-cigarettes, cigarettes) and cannabis products (e.g., vaporized/combustible cannabis). Vaping intensities were the number of times a participant vaped nicotine/cannabis in an entire day. Vaping patterns on a given day were categorized into non-vaping, single-substance vaping, same-day different-occasion co-vaping, and same-occasion co-vaping. Generalized linear mixed-effect models examined day-level associations between these patterns and vaping intensity outcomes, controlling for covariates. *Results:* Of the participants, 84.7% reported co-vaping and 15.3% reported single-substance vaping in the past 30 days. Of the 2,522 daily assessments, 42.7% were nicotine-only vaping, 9.7% cannabis-only vaping, 16.5% same-day different-occasion co-vaping, and 16.9% same-occasion co-vaping. Participants reported a greater intensity of vaping nicotine and cannabis on days with same-occasion co-vaping compared to days with other vaping patterns. Vaping intensities on days with same-day different-occasion co-vaping were greater than on days with single-substance vaping or non-vaping. *Conclusions:* Closer temporal proximity of co-vaping was associated with greater intensities of vaping nicotine and cannabis. Same-occasion co-vaping is linked to the greatest increase in vaping intensity.

Interventions addressing this high-risk pattern are warranted.

Translating Epidemiological Data to the Design of a Community-Based Just-In-Time Adaptive Intervention for Young Adults Co-Using E-Cigarettes and Cannabis

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Significance: There has been renewed interest in translating epidemiological research findings into substance use prevention interventions, with emphases on disparities and community-level factors. Limited work suggests high rates of exclusive e-cigarette or cannabis use in vulnerable populations, such as Indigenous and sexual and gender minority (SGM) groups, with minimal exploration of co-use. This active study utilizes two sources of epidemiologic data to identify the most vulnerable subgroups for cannabis use, e-cigarette use, and co-use, and examines unique risk factors that drive greater co-use to guide the development of a just-in-time adaptive intervention (JITAI) for

young adults. *Methods:* Data from Hawaiian young adults ($N = 2353$) who completed the annual CDC survey, Behavioral Risk Factor Surveillance System (BRFSS) from 2020-2022, and the 2017-2024 Young Adult Health Behavior Survey (YAHB; $N = 2565$), an NIH-funded dataset based on a Hawaii cohort, were examined to establish past-month co-use prevalence. Demographic differences in e-cigarette, cannabis, and co-use were analyzed, along with effects of advertising and social influences. *Results:* BRFSS data suggests an overall prevalence of 7.7% for past-month co-use in Hawaii young adults ages 18-29. 18.8% reported cannabis use (cannabis-only: 11.1%) and 21.3% used e-cigarettes (e-cigarettes-only: 13.6%) in the past month. Data from the YAHB baseline survey found higher rates of past-month co-use (11.2%), cannabis use (25.9%; 14.7% cannabis-only), and e-cigarette use (23.1%; 11.9% e-cigarettes-only). BRFSS young adults ages 18-24 had double the prevalence of co-use (9.8%) compared to those ages 25-29 (4.7%), while those 25-29 had higher rates of cannabis-only use (13.2%) than younger participants (9.7%). Co-use among YAHB young adults did not differ significantly by age group, though older participants reported greater cannabis-only use. BRFSS males, but not YAHB, had higher rates of co-use (8.8%) compared to females (6.4%). BRFSS co-use and cannabis-only rates were significantly higher in SGM participants (19.6%, 18.3% respectively) compared to cisgender heterosexual participants (5.9%, 10%). BRFSS data showed that White (10.2%) and Native Hawaiian

and Pacific Islander (NHPI; 8.8%) participants had the highest rates of co-use, which YAHB data supported (NHPI=13%, White=12.1%). Further, NHPIs and Whites had the highest rates of cannabis-only use, and Indigenous (NHPI and American Indian/Alaska Native) and Filipino participants had the highest rates of e-cigarette-only use. BRFSS participants with the lowest household income were more likely to co-use, while co-use varied by income level in YAHB. YAHB young adults with a family member or partner who used e-cigarettes had significantly higher odds of co-use (ORs = 2.53-2.71), cannabis-only use (ORs = 1.42-1.44), and e-cigarette-only use (ORs = 2.81-3.93). Greater exposure to point-of-sale cigarette/e-cigarette marketing increased odds of co-use, cannabis-only use, and e-cigarette-only use (ORs = 1.08-1.15). *Conclusions:* Co-use is common among young adults in Hawaii, but differences emerge among sub-groups, with NHPI, White, and SGM participants being at the greatest risk for co-use. Social and marketing factors that appear to impact single-substance- and co-use warrant further exploration. Next steps involve identifying profiles of use for vulnerable groups and linking local point-of-sale tobacco retail location data with co-use rates to examine its impact. Findings from comprehensive data analyses will allow us to calibrate the new JITAL.

Harm Perceptions, Problems, and Intentions to Quit among Adults Engaging in Poly-Cannabis and Poly-Tobacco Couse

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Significance: Evidence suggests tobacco and cannabis co-use (co-use) is associated poorer health outcomes and more difficulty quitting either substance. Yet little is known about how different types of co-use (single use vs. poly use) may influence problematic cannabis use and intentions to quit tobacco and cannabis. *Methods:* We describe multiple cannabis and tobacco use among US adults who co-use. Participants who used tobacco were recruited nationally online between July and October 2024 ($n = 4013$). Of these, 2058 (51.3%) reported using cannabis in the last month and were categorized as co-using. One-way ANOVA and Chi-square tests examined perceptions of relative risk (range -2 = cannabis much less harmful than tobacco, 2 = cannabis much more harmful), problematic cannabis use (CUDIT, range 0-32), and intentions to quit tobacco and cannabis among groups of co-users who engaged in single or multiple use of tobacco and cannabis products. *Results:* On average, participants were 47.55 ($SD = 16.39$) years old, cis-gender men (50.1%) or women (49.0%), and were primarily non-Hispanic White (58.6%) or Black (22.0%). Among adults who co-used, 22.1% used one tobacco and one cannabis product (single use co-use, SU), 10.8% (222) used multiple tobacco products and one cannabis product (tobacco poly use, TPU), 26.8% (551) used one tobacco product and multiple cannabis products (cannabis poly use, CPU), and 40.3% (827) used multiple

tobacco and cannabis products (dual poly use, DPU). CPU participants perceived cannabis as less harmful than tobacco ($M = -.95$) compared to those who DPU ($-.87$), TPU ($-.67$), or SU ($-.82$), $p < .001$, $\chi^2 = .005$. DPU participants had CUDIT scores associated with possible cannabis use disorder ($M = 13.14$), while all other groups had scores associated with hazardous cannabis use (CPU $M = 10.69$, TPU $M = 10.24$, SU $M = 8.52$, $p = < .001$, $\chi^2 = .064$). There were no differences between the groups in intentions to quit, $\chi^2(9) = 8.87$, $p = .45$. Overall, 37.5% intended to quit all tobacco use within 6 months, 36.1% intended to quit sometime beyond 6 months, and 26.4% were not planning to quit. There were, however, significant differences in intentions to quit cannabis, $\chi^2(9) = 44.80$, $p < .001$. CPU participants were most likely to not plan on quitting cannabis at all (75.0%) followed by DPU (63.5%), SU (63.5%), and TPU (53.0%). CPU co-users were also least likely to intend to quit in the next 6 months (14.7%), DPU and SU were intermediate (21.6% DPU, 22.1% SU), and TPU participants were most likely to intend to quit cannabis within 6 months (28.6%).

Discussion: DPU participants made up the largest proportion of co-users and compared to other groups, they perceived cannabis use to be less harmful than tobacco use while simultaneously reporting more problems associated with cannabis use disorder. Intentions to quit tobacco were similarly high across all groups and intentions to quit cannabis differed. CPU co-users were least likely to intend to quit, and DPU and SU co-

users were also unlikely to quit, despite greater problems among DPU. Future work should focus on understanding the relationship between harm perceptions, cannabis problems, and other factors, such as stress or chronic health conditions on intentions to quit cannabis and tobacco among different groups of co-users.

Does Cannabis Use Moderate the Impact of Tobacco Cue Exposure on Craving and Use of Cigarettes and E-Cigarettes? Evidence from a Naturalistic Observational Study

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Introduction. Although cue reactivity (CR) to tobacco in controlled settings is a well-established phenomenon, research on CR in natural environments and on real-world moderators of cue-elicited craving remains limited. Laboratory studies typically focus on participant factors and cue characteristics as potential moderators of CR effects. However, theories of addiction would likely posit that other factors in naturalistic settings, especially associative learning factors, may be more proximal moderators of cue effects on both craving and use. Among such factors is the use of other substances and especially - as it pertains to tobacco -

cannabis use. Almost half of young adults who currently use tobacco report past-month co-use of cannabis, with co-use occurring both proximally in time and via co-administration (e.g., blunts and spliffs). Despite the likelihood for cross-conditioned craving, research has yet to extensively investigate the impact of cannabis use on CR to tobacco cues. *Methods.* Young adult dual users ($N = 43$; age 21-34) completed a baseline survey, two laboratory sessions, and 28 days of ecological momentary assessment (EMA) comprising random, cue, and tobacco use surveys. We fit linear mixed effects models regressing craving for cigarettes and e-cigarettes from the random surveys onto past-hour cue exposure, past-hour cannabis use, and their interaction. We then fit a series of generalized linear mixed models regressing survey type (smoking versus vaping/none; vaping versus smoking/none) from the tobacco use and random surveys on the same predictors, controlling for sex, age, race, and ethnicity. *Results.* Past-hour cigarette and e-cigarette cues elicited significantly increased craving for the cued product but not for the non-cued product. Past-hour cannabis use did not impact tobacco craving, nor did it moderate the impact of tobacco cue exposure on craving, regardless of the cue or tobacco product. Past hour cigarette and e-cigarette cue exposure were also associated with greater odds of using the cued product. Further, past-hour e-cigarette cue exposure was associated with reduced odds of using cigarettes. Consistent with the findings on cue-elicited craving, cannabis did not impact tobacco use or moderate the

effect of cue exposure on use. *Conclusion.* Tobacco cues elicited strong effects on craving and use of the cued products in the natural environment; however, these effects were not significantly moderated by cannabis use in our sample. Cross-conditioned effects between tobacco products that have been observed in laboratory settings were not replicated naturalistically nor were they moderated by cannabis use. Additionally, cannabis did not have a direct effect on either craving or use of tobacco naturalistically. Although cannabis and tobacco co-use is a highly prevalent phenomenon, the neural and behavioral processes underlying their co-use may be unique to their combination, similar to the cross-product effects observed for the two different tobacco products. In other words, there may be unique learned co-use cues that elicit craving and co-use of tobacco and cannabis that do not generalize or impact other patterns of substance use. Future research should seek to examine such co-use specific antecedent processes.

**The Impact of Cannabis Use on
Smoking Cessation in People with
HIV: Evidence from a Recent Nicotine
Patch Preloading Trial**

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Significance: Tobacco use prevalence among people with HIV (PWH) is 2-3 times higher compared to the general US population, yet smoking cessation rates among PWH remain poor. Cannabis use, prevalent in PWH at twice the rate of use as the general population, may hinder tobacco cessation outcomes since many PWH report cannabis use to manage HIV-related symptoms. A recent 16-week randomized control trial examined the feasibility, acceptability, and preliminary efficacy of preloading with nicotine replacement therapy (NRT) in PWH who smoke to improve cessation outcomes. This secondary analysis explores how the use of cannabis may influence tobacco cessation outcomes observed in the trial. *Methods:* Participants who smoked at least 5 cigarettes per day and were motivated to quit were randomized to nicotine patch preloading for 3 weeks before the target quit date (TQD) or no preloading. Starting on the TQD, all participants initiated combination NRT (patch/lozenge or patch/gum) for 8 weeks. A trained clinic nurse provided five behavioral counseling sessions based on standard guidelines. At 12 weeks post-TQD, CO-verified (< 5 ppm cutoff) 7-day point-prevalence abstinence was assessed. Daily cannabis, cigarette, and NRT use was assessed at each follow-up period using a 7-day Timeline Follow-Back (TLFB). Reductions in cannabis use were calculated as the difference in use days from baseline and as the percentage change from baseline across follow-up periods. An exploratory regression analysis examined the relationship

between NRT use days and cannabis use days. *Results:* A total of 49 participants were randomized (mean age = 52.2 years; 63.5% White; 37% female). Participants smoked a mean of 14.8 ($SD = 9.0$) cigarettes per day with moderate dependence (mean 4.9 [$SD = 2.3$]). At baseline, 47% ($N = 23$) of participants reported current cannabis use, of whom 12 (52.1%) used daily. By week 16, eight participants (15.4%) achieved CO-verified abstinence (4 in the preloading condition, 4 in the control condition). At week 16, half of those who were abstinent reported cannabis use at baseline, with three out of four individuals experiencing some form of reduced cannabis use throughout the trial. Participants reduced cannabis use by an average of 1.2 days per week from baseline across follow-up periods, corresponding to a 17.3% reduction in use. The greatest reductions were observed at Week 16, with an average reduction of 2.7 days per week (a 38.1% reduction). By Week 16, two participants achieved complete cannabis abstinence. Reductions in cannabis use often coincided with decreased cigarette use; however, some participants quit smoking while continuing cannabis use, indicating independent cessation behaviors. Moreover, at Week 4, each additional day of NRT use was associated with a reduction of 0.1 days of cannabis use; however, this relationship was not statistically significant ($p = 0.299$). Notably, cannabis use patterns did not differ between the preloading and control arms. *Conclusions:* Participants who reduced or stopped cannabis use may have found it easier to quit smoking

cigarettes, though this was not universal. Some participants successfully quit smoking cigarettes while continuing daily or frequent cannabis use. These findings suggest that cannabis and tobacco cessation are independent behaviors among PWH.