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A safer alternative: Cannabis substitution as harm reduction

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Abstract

Introduction and Aims.—Substitution is operationalised as a conscious choice made by users to use one drug instead of, or in conjunction with another based on:perceived safety, level of addiction potential, effectiveness in relieving symptoms, access and level of acceptance. Harm reduction is a set of strategies that aim to minimise problems associated with drug use while recognising that for some users, abstinence may be neither a realistic nor a desirable goal. In this paper, we aim for deeper understandings of older adult cannabis users' beliefs and substitution practices as part of the harm reduction framework.

Design and Methods.—We present selected findings from our qualitative study of Baby Boomer (born 1946–1964) marijuana users in the San Francisco Bay Area.Although the sample consisted of primary cannabis users, many had personal experience with other drugs throughout their lifetimes. Data collection consisted of an audio-recorded, semi-structured in-depth life history interview followed by a questionnaire and health survey. Qualitative interviews were analysed to discover users' harm reduction beliefs and cannabis substitution practices.

Results.—Study participants described using cannabis as a safer alternative for alcohol, illicit drugs and pharmaceuticals based on their perceptions of less adverse side effects, low-risk for addiction and greater effectiveness at relieving symptoms, such as chronic pain.

Discussion and Conclusions.—Cannabis substitution can be an effective harm reduction method for those who are unable or unwilling to stop using drugs completely. More research is needed on cannabis as a safer alternative.

Keywords

cannabis; marijuana; harm reduction; drug substitution; drug user

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Introduction

Cannabis (marijuana) has been referred to as a ‘gateway drug’ because its use often precedes, and is believed to lead to, other drug use, such as hallucinogens, heroin and cocaine [1,2]. However, studies indicate cannabis has potential harm reduction benefits and could be a ‘gateway’ out of problematic drug use. Harm reduction is a set of strategies that aim to minimise problems associated with drug use while recognising that for some users, abstinence may be neither realistic nor desirable. Research suggests cannabis ‘substitution’ can be an effective method of reducing harms associated with alcohol, illicit drugs and pharmaceuticals [3–10]. Reiman operationalised substitution as a conscious choice made by users to use one drug instead of, or in conjunction with another based on: perceived safety, level of addiction potential, effectiveness in relieving symptoms, access and level of acceptance [9]. Dreher’s ethnographic study of women who used crack in Jamaica found cannabis was used in conjunction with crack to minimise undesirable effects of crack pipe smoking. Cannabis was also the most effective and readily available therapy for discontinuing crack use [3]. Mikuriya and Mandel documented how the use of cannabis ended debilitating drug use in their own patients [6,7]. Patients who replaced alcohol with a regimen of marijuana smoking reported cannabis simultaneously removed cravings for and relieved symptoms masked by alcohol. Cannabis use was effective in relieving pain, inducing lasting sleep, calming jitters, breaking out of depression, and as a safer alternative to alcohol. Substitution was not just ‘one drug replacing another’ but represented a dramatic ‘night and day’ change [7].

In a survey of 350 patients (ages 18–81) of a California medical cannabis dispensary, 40% of respondents used cannabis as a substitute for alcohol, 26% for illicit drugs and 65.8% for prescription drugs. Motives for substitution included: less adverse side effects (65%), better symptom management (57.4%), less withdrawal potential (34%), ability to obtain cannabis (17.8%), greater social acceptance (11.9%) and other unspecified reasons (12.2%) [9]. A similar survey of 404 Canadian medical cannabis dispensary members found 75.5% of respondents substituted cannabis for at least one other substance, with ‘less withdrawal’ (67.7%) as the most commonly cited motive [5].

However, these surveys were limited to medical cannabis patients, many of whom are regular cannabis users with a stable supply, self-medication legitimised by a doctor’s recommendation and freedom to choose cannabis as a substitute. Our sample of Baby Boomers included non-patients who may lack these characteristics and resources. Although we focused on primary cannabis users, many interviewees had personal experiences with other drug use across the life course.We seek to illustrate the rationalisations used to make cannabis their drug-of-choice and how they used cannabis as a harm reduction method. In-depth understanding of cannabis substitution as harm reduction may provide insight into strategies that aim to minimise risks of other drug use and misuse. Increased understandings of older drug users’ harm reduction beliefs and practices will strengthen educational messages and support public health initiatives.

Methods

Findings for this paper are derived from a National Institute on Drug Abuse (R01 DA033841) funded study of Baby Boomers who use cannabis. Ethical approval was gained from the Institute for Scientific Analysis' Institutional Review Board. The US Census Bureau considers people born between 1946 and 1964 as members of the Baby Boomer generation, spanning an extensive period of time characterised by change and social turbulence [11].

We identified and recruited 97 participants in the San Francisco Bay Area with the help of eight key informants who participated in previous studies and referred potential participants. We also posted recruitment advertisements on Craigslist, a classified advertisements website. We employed chain-referral sampling by asking participants who completed the interview to refer up to three of their friends who were cannabis users.We limited referrals to three in order to ensure penetration into various social worlds. These recruitment strategies ensured we were able to penetrate numerous social networks and diverse groups of cannabis users.

Participants were pre-screened to determine eligibility. To be included, participants self-identified as current users, born between 1946 and 1964, and used marijuana at least 24 times in the prior 6 month period. Medical cannabis patients were included in the sample, but because this was not a study of medicinal cannabis per se, they had to have used for other purposes (relaxation and partying) and met the minimum number of times used in that manner. We excluded those who self-reported problems with or treatment for alcohol or other drugs in the year prior to the interview to ensure participants were primary marijuana users.

Data collection consisted of an audio-recorded, semi-structured in-depth life history interview, followed by a questionnaire and health survey. Interviews were conducted from 2013 to 2014 in our office or at interviewees' homes, and typically lasted 2 h. Our study aimed for a deeper understanding of Baby Boomers' cannabis use patterns, attitudes and perceptions, health and social consequences, and the impact of context on all of the above.

The research team held weekly meetings to develop codes based on emergent themes from the interviews. All interviews were transcribed and coded using NVivo9 (QSR International, Victoria, Australia. The American Sales Office is located in Burlington, Massa-chusetts, USA). Questionnaire data were entered into spss 12.0.1 (IBM Corporation, Armonk, New York, USA). Participants' cannabis substitution beliefs and practices emerged as an important component of the harm reduction framework.

Results

The sample (N = 97) included 62 men and 35 women. Ages ranged from 48 to 68 years (median 58). Seventy-one interviewees (73%) identified as white, 18 (19%) as African American, four (4%) as mixed ethnicity, two (2%) as Asian, one (1%) as Pacific Islander and one (1%) as Native American.Three (3%) participants were also Latino (one white and two mixed ethnicity). Thirty-three (34%) had a medical cannabis recommendation or card. Participants were all long-term cannabis users with years of use ranging from 17 to 51

years and a median of 42 years. All quoted interviewees are identified with a pseudonym to protect confidentiality and anonymity.

Perceived safety and self-control

Participants considered cannabis a safer alternative for alcohol, illicit drugs and pharmaceuticals because it had more manageable or less adverse side effects. Only 10% of interviewees reported they experienced physical or mental health problems attributed to cannabis use. Many expressed pride in maintaining self-control with cannabis, characterised by normal social functioning and use regulation. Some took pleasure in the virtual absence of potential for lethal overdose and often cited low risk for addiction. In order to downplay the risks of cannabis use, people scapegoated 'hard drugs' users, or compared cannabis with alcohol and other drugs [12].

When asked how her use motivations changed over time, Rachel, a 60-year-old retired accounts payable specialist, revealed she used marijuana instead of alcohol: '*[I] would rather smoke marijuana than drink. …'Cause I wouldn't wake up with a hangover…. I never lost control…. You know, you never blanked out or anything.You're always aware*'.

Some voiced confidence in the fact that cannabis use did not result in crime and violence usually associated with other drugs. Henry, a 60-year-old contractor for a technology company, credited cannabis use with stopping his alcohol consumption and eliminating his 'real bad temper':

> I think a lot of it has to do with the weed and the fact that I don't drink. When I drank was when [the real bad temper] would happen…. And to see it and compare it, you know, it's the difference between night and day … Especially since I don't drink anymore, so I can … compare and say, well, when I've gotten into a fight at a bar …if I had smoked a joint, no.I'm not a fighter,I was just drunk…. But I can't see that happening with marijuana.

Rob, a 49-year-old massage therapist, expressed belief in cannabis substitution as part of a harm reduction framework:

> [I]t's so less harmful than alcohol and cigarettes. I mean, nobody ever dies from taking marijuana …Lots of people die from lung cancer, alcoholism … Car accidents … I think I kind of approach it from a harm reduction model, which is it's not that harmful.…There's other drugs that are worse…. More addictive and physically addictive, and I don't think marijuana's physically addictive.

In other references to self-control, interviewees explained it was easier to titrate the dosage of cannabis versus other drugs. Barry, a 59-year-old who sells marijuana to dispensaries, explained how smoking cannabis promoted controlled use: '*[T]he thing that I like about marijuana and what differentiates it from alcohol to me is that … I can regulate my high, because the high is relatively quick after the inhalation, you know?*' Kristina, a 50-year-old mother and caregiver, appreciated the ability to control cannabis use: '*[T]he reason I didn't like [cocaine], is because I felt like with it, I didn't really have control. I felt like when I smoked weed, I had a little bit more control and if I did get a little high, I could eat a little something and like, come back down*'. Although some interviewees experienced

cannabis overdose or 'getting too high' (most commonly with edible forms of cannabis like brownies), they expressed assurance that it would be non-lethal. Five percent of participants reported feeling they had lost control of their cannabis use at some point in their lives. However, the majority claimed that withdrawal symptoms (e.g. irritation and sleeplessness) were manageable and they could resist using cannabis. Anthony, a 65-year-old in IT management, alluded to the low potential for cannabis addiction and its relative safety compared to other substances:

> I wish there were other drugs that, you know, you could use in moderation. But unfortunately for some reason, the brain wants these drugs more intensely than the other ones…. So, it's impossible, almost, to do it.
>
> [INT: Mmhmm. But marijuana you find that you can moderate it, right?]
>
> Exactly. It's probably the only drug…. [Y]ou know, and no one's ever died from it…. Which is a very awesome statistic. Showing that it won't kill you! I mean, that's a big thing.

Karl, a 52-year-old health outreach team leader, shared he was addicted to smoking crack during his early-twenties. He used cannabis as he attempted to quit: '*[I]n order to not use the crack, I'd smoke the weed … Usually crack was just my drug of choice…. [A]nd so in the transition, smoked weed. '… [T]hen again, weed had been a regular part*.' He claimed, '*[L]iving life drug-free is just pretty boring to me*.' Harm reduction was more aligned with his philosophy than abstinence-based treatment programs:

> I think alotta folks like me, did the Narcotics Anonymous thing. Then that was too rigid … it was like, 'Oh, you had to be clean and sober.' … [I]t was like,'No. I'm cool. As long as I'm not messin' with crack, I'm cool.' … 'Cause it was like,'Hey, that's a victory for me.' …And then you know, learned of the concept of harm reduction…. I was like,'Oh, okay.This makes much more sense'.

Cannabis substitution as harm reduction was not limited to alcohol and illicit substances.

Alternative for prescription medications

It was more common for interviewees to use cannabis as an alternative for prescription medications, based on perceived safety and effectiveness in relieving symptoms. Karl found that using cannabis in combination with Vicodin (AbbVie Incorporated, North Chicago, Illinois, USA) prolonged his pain-relief, ultimately reducing his overall Vicodin use:

> I had operation on my colon. And there's a chronic low-level pain.And so they'd give youVicodin.…I found that, oneVicodin, and marijuana, it would augment theVicodin …for hours.As opposed to taking twoVicodin.…And it would be short-lived, in like two or three hours your pain will be back…. Take one Vicodin, and smoke some marijuana, and it may last six hours…. Or seven hours.

Susan, a 53-year-old operating clerk for a utilities company, used prescription medication to relieve chronic migraines and occasionally used cannabis recreationally during her parenting years. Once her children moved out, she smoked marijuana more frequently and discovered it could replace her migraine medication. Susan was motivated to substitute by the long-term

health risks of using pharmaceuticals. After Manny, a 48-year-old administrative assistant, injured his back, he used cannabis to avoid the adverse side effects of his prescriptions: '*And I started taking all these pain-killers…. And the pain-killers were making me feel so groggy … I was not feeling good. I was going out of my mind. And then that's when I started thinking about weed again*'. Samuel, a 62-year-old restaurant owner, explained how he used cannabis as a sleep-aid to avoid the negative side effects of pharmaceuticals:

> Okay, now I really use it for insomnia.'Cause they gave me pills and the next morning, I was like still…. I couldn't get my head straight and everything else. You know, I'm still working at the time, I'm traveling, I'm on business trips … I'm waking up, 'Man, I gotta go do meetings and stuff?' Ugh…. I said,'I'd rather smoke a joint.The next day I wake up, I'm fine'.

Jackie, a 59-year-old drug policy reform activist, experienced backlash from her health-care provider for choosing to substitute cannabis for painkillers:

> I was in so much pain and taking so many pain-killers and none of them were helping at all…. I had been reading about marijuana and it helping pain and I never thought about it.…And, so I thought,'Well damn it,I'm gonna try it,' and somebody gave me like an edible…. I was pain free and I didn't have to take all the Vicodin, and Kaiser is getting on me…. 'You can't do that anymore.' … [B]ecause they'll be drug testing me, and that will show up on the drug test…. I said 'No, I'll just be taking the marijuana, thank you'.

Kim, a 55-year-old whose chronic pain had left her unable to work, used cannabis instead of her prescription medications:

> I have rheumatoid arthritis and I'm on medication, so the medication don't help, but I feel better when I smoke the marijuana … [I]t just totally relax me, relax my joints, relax my nerves, everything…. [W]hen I'm smoking, it keeps me calm…. I try to smoke me a blunt three times a day. Just so I don't have to take medications 'cause they got me on like fifteen, twenty different medications.

Kim explained as cannabis helped her 'better than anything', she was in negotiations with her doctor about getting a medical recommendation. She was frustrated that her doctor refused and instead continued to 'push prescriptions' as a sort of 'experiment'. Rachel the retiree stated, '[*W]hen you go to the doctor, the first thing they wanna do is give you pills*'. She felt that cannabis could replace her pain management prescriptions because she feared their potential for addiction:

> I'm just not a pill taker…. Because the doctor I went to with the carpal tunnel, they was tryin' to give me that Vicodin … that Oxycontin…. I was like, 'You gettin'me hooked on some crap. I'ma have to be followin' you around.' … I say,'I know you have something that's not with any drugs in it.' … I said,'I'd rather smoke medical marijuana.'…So I'm like,'You keep your pills.'But they got kinda mad…. [B]ecause they missin' that money.

A dozen participants (12.4%) shared similar stories about how cannabis was a safer alternative and more effective than pharmaceuticals at relieving their symptoms. Some interviewees considered cannabis safer than prescription medications because it was a

'natural' herbal remedy. Chelsea, a 54-year-old caregiver with neuropathy, found medical cannabis to be more effective and safer than prescriptions. She was dismayed at her doctor's support for pharmaceuticals because of perceived risks:

> I don't like taking a whole bunch of pills…. That's what my doctor do. 'Here, take these, take these.' … [T]here has to be some type of effect for all those pills going into my body at some point in my life … so if I can find a natural remedy that will work, that will wear off and don't have all these other chemicals and stuff in it. I'm all for it.

Cannabis use was also considered a harm reduction method for other substances.

Cannabis use as harm reduction for other drug use

Some interviewees used marijuana in combination with other drugs to reduce problematic drug effects. Participants reported using marijuana as a harm reduction method if they felt too drunk or high on other drugs. Jerry, a 65-year-old convention staffer, explained:

> People were smoking pot and then somebody would have a line or something…. And again, I think the pot actually mellowed out the cocaine … the pot would actually bring you down. So same thing with alcohol, pot seemed to curtail it or put a lid on it, so you didn't get too whacked out.

Stewart, a 50-year-old computer science student, explained that marijuana helped reduce his alcohol consumption: '*[I]t curbs my drinking … I start doing too much beer or somethin' … if I take a couple hits, now I'll calm down. It's like,'Hey, you know, go home, and watch a movie or something*'. Similarly, Evan, a 50-year-old chef, felt cannabis could help regulate other drug use:

> [E]ven when you high off other shit, when you smoke pot man, pot is gonna do one of two things to you. It's gonna mellow you out, or knock you out! …When I used to do cocaine, and I be too high … I'd smoke some weed…. It bring you down…. It's like it regulates you a little bit.

Shaun, a 53-year-old who records music, used marijuana to 'cool off' from an LSD trip:

> [Marijuana] sort of cools your energy. Like, so no matter what is going on, it has that effect. And especially with doing drugs like psychedelics, which can really stimulate you and get your head kind of out here, smoking pot can kind of bring you back into your body a little…. So pot can help sort of be a mediator … I remember with the friends I used to experiment with acid, it would be like 'Oh, I think we need to smoke some pot to chill out'.

Some interviewees claimed marijuana use in conjunction with other drugs seemed to 'enhance' whatever substance they were using. Others were cautious not to engage in polydrug use because they worried about potential negative drug interactions.

Discussion

Participants' experiences suggest cannabis substitution can be an effective harm reduction method for those unable or unwilling to stop using drugs completely. Although many

interviewees used other drugs in their lifetime, some made cannabis their drug-of-choice because of less adverse side effects and addiction potential compared with alcohol, illicit drugs and pharmaceuticals. Justifying cannabis use by citing the risks of other drugs has been called ‘techniques of risk denial’ because the comparisons made by youth are considered attempts to neutralise stigma [12]. However, these evaluations motivated practical harm reduction methods in our sample of older drug users. Interviewees perceived cannabis as a safer alternative for prescription medications (especially for managing chronic pain), which may help explain why medical cannabis laws are associated with lower state-level opioid overdose mortality rates [4,13]. Participants in Norwegian and Danish cannabis studies made similar comparisons between cannabis and prescription drugs [14,15]. Our findings are consistent with research that suggests individuals are more likely to substitute cannabis for prescription drugs rather than alcohol or illicit drugs [5,9], but our participants were more likely to use pharmaceuticals compared with the general population due to their age. Some participants who used cannabis in conjunction with other substances reported potential harm reduction benefits, such as ‘regulation’ of intoxication. Prescribing cannabis specifically for harm reduction has been proposed as a radical approach for treating problematic drug use [6,16,17]. One study indicated that medical cannabis users in substance abuse treatment fared equal to or better than non-cannabis users in several treatment outcome categories, including program completion, criminal justice involvement and medical concerns [18].

The level of cannabis’ acceptance was not reported to have a major role in substitution practices for our sample, which may be attributed to age and location of our study population. However, a few interviewees shared how their primary health-care providers refused to recommend cannabis as therapeutic treatment. Some doctors refused to write recommendations because they feared punitive action or simply did not believe in the therapeutic value of cannabis [19]. This dynamic can damage necessary trust in doctor–patient relationships, where both parties work together to find the best health solutions. Substitution highlights users’ self-determination—the right of individuals to decide which treatment or substance is most effective and least harmful [9]. Interviewees were also hesitant to seek medical cannabis due to concerns regarding privacy and professional risks. In such cases, formal legal prohibitions limited participants’ safe access to regulated sources of cannabis. Cannabis users without a doctor’s recommendation were relegated to underground market transactions where they risked getting contaminated products, arrested or robbed. Our research findings suggest the medical cannabis system’s formal regulations increase safe access and support harm reduction through laboratory testing, proper labelling and education [20]. Such regulations could benefit non-medical cannabis users as well. Although availability was not a reported problem for most interviewees, policies that increase safe access to cannabis could significantly impact substitution decisions, allowing drug users across the spectrum to choose cannabis as a safer alternative.These findings should be part of the discussion when formulating patient-centred, evidence-based treatment programs. Studies have focused primarily on marijuana use. Future research should extend to alternative cannabis derivatives as well. Further research is needed on cannabis substitution beliefs and practices, potential harm reduction benefits and the lived experiences of drug users.

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