

A Case Report of a Concurrent Treatment of Cannabis and Tobacco Use within a Community Substance Misuse Service

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Abstract

We report the case of a heavy cannabis and tobacco user tracked over a fifteen-week treatment episode comprising tobacco and cannabis cessation interventions, with successive follow-ups at three, six and nine months.

Upon treatment exit, the client was abstinent from both cannabis and tobacco, sustained at three-month follow-up. At six months, the client had returned to smoking tobacco but maintained abstinence from cannabis. At final follow-up the client reported several lapses of cannabis use alongside continued tobacco smoking.

The case suggests that, for some clients at least, over the initial withdrawal period abstinence from one substance does not undermine abstinence from another. It also suggests that clients accessing community drug treatment may benefit from concurrent smoking cessation interventions, and that addressing stress may be key to sustaining positive treatment outcomes.

Keywords: Smoking cessation; Cannabis; Marijuana; Tobacco; Substance misuse; Treatment

Background

Tobacco smoking rates amongst cannabis users are very high; up to 94% [1,2] compared to around 20% of the general population [3]. Already the UK's largest cause of preventable death, disease and inequality [4], tobacco use is related to anxiety and depressive symptoms [5,6], particularly those who are nicotine dependent [7]. Concurrent use of cannabis and tobacco has also been associated with increased psychosocial problems [8], greater risk of cannabis use disorder [5] and poorer cannabis cessation outcomes [9-11].

Tobacco and cannabis use are the second and third most prevalent addictive behaviours worldwide [12] and among the top four most harmful to the economy [13]. There is a need to further investigate their joint use [14] and the implications this has for prevention and intervention strategies. The lack of change in tobacco smoking rates among adult substance users, against an otherwise significant downward trajectory across the general population, shows that the tobacco control strategies are having little effect on this population [15]. This could be due to cannabis users lacking interest in smoking cessation or being unable to stop smoking, but a limited access to smoking cessation treatments may be also a contributing factor. Indeed a recent study found that significantly lower numbers of substance misuse clients are offered smoking cessation interventions (15%) than desired them (79%), highlighting a "clear, unmet need" among drug treatment providers "which needs to be urgently addressed" [15].

Cannabis and tobacco cessation

While some research shows that dual abstinence predicts better cessation outcomes [1], perhaps unsurprisingly due to their shared

route of administration, the evidence base for joint cannabis and tobacco cessation is less promising than for wider substance misuse [16,17]. Akre and colleagues cite difficulties in quitting tobacco and cannabis simultaneously [10], due to cannabis withdrawal raising perceived stress levels and smoking tobacco a perceived source of relief from stress. However there is a body of research showing that tobacco cessation, in fact, leads to significant reductions in perceived stress [18,19], at least in people who manage to maintain smoking abstinence over an extended period of time, suggesting a greater need for professional understanding and client assurance at intervention stage.

Allsop et al. found that abstinence from cannabis is associated with increased consumption of alcohol and tobacco, which is paralleled by a decrease in alcohol and tobacco use following resumption [20]. That there was no increase in those who remained abstinent at the one month follow-up suggests that immediate increase in tobacco use may be a predictor of cannabis relapse; perhaps initiating nicotine replacement therapy alongside cannabis cessation would improve these treatment outcomes, an area requiring further investigation in community drug settings.

Hypothesis

This article seeks to explore this "unmet need" in practice; we present a case study that illustrates the concurrent approach to treatment through the integration of psychosocial smoking cessation interventions to standard cannabis treatment provision. Cannabis treatment provision typically includes brief interventions such as motivational interviewing; guided self-help, group support, care planning and contingency management [21], while smoking cessation services comprise brief interventions, nicotine replacement therapies, self-help, referral, behavioural counselling and provision of telephone support [22].

Case Study

Matthew is a 28 year-old male who lives in social housing in an inner-London borough, where he grew up with his mother, father, fraternal twin and elder sibling until he was taken into care aged twelve. Matthew recalls both parents smoking cigarettes; his mother was also alcohol dependent, a reason to which he attributes statutory social service involvement from childhood. His fraternal twin, with whom he was separated from aged twelve, smokes cigarettes and cannabis, and scores high risk under the Alcohol Use Disorders Identification Test [23].

Matthew was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) at aged eleven. He recalls performing poorly at school, leaving at aged fifteen; his first arrest came shortly after, and by his early twenties was registered as a Prolific and Priority Offender (PPO). He estimates that he has spent well over half of his adult life in prison.

He started smoking cigarettes at twelve and cannabis from age fourteen, initially smoking Hash before migrating to Skunk (a more potent strain of cannabis with much higher tetrahydrocannabinol content) by aged sixteen. He does not use any other substances, except for alcohol "occasionally". Prior to his most recent custodial sentence, Matthew was smoking approximately £300 worth of Cannabis per week, which he estimates equated to five grammes (six "joints") per day, sourced via a range of mostly acquisitive crimes. He was also smoking rolled cigarettes, approximately 20 per day. Matthew therefore met the criteria both for severe cannabis use disorder (304.30, DSM-V) and nicotine dependence according to the Fagerstrom Test for Nicotine Dependence [24].

Matthew reported intermittent abstinence from both cannabis and tobacco while in prison, ranging between three and eleven months. He was offered nicotine replacement therapy (NRT) each time he was incarcerated, and cited nicotine patches as most effective in supporting tobacco abstinence. He estimated that he had made twelve previous attempts at tobacco and cannabis cessation during his smoking career, but had never succeeded in the community. He cited previous attempts at stopping both simultaneously as ineffective, except while in prison, which he felt "doesn't count when you're out in the real world."

Preceding his recent treatment episode, Matthew had not engaged with substance misuse services. However, he was mandated to enter drug treatment upon release from prison as part of his licence conditions, and entered treatment with WDP, a community provider of substance misuse services. Upon release, Matthew informed his key worker that he had a strong desire to sustain the period of abstinence from cannabis that he had accrued while in prison. He reported not having smoked cannabis since being incarcerated eleven months earlier, but continued to smoke rolled cigarettes, approximately 20 per day.

While in treatment, Matthew received weekly key working sessions which incorporated a blend of smoking cessation and substance misuse-based psychosocial interventions, shaped through motivational interviews and based on self-prescribed goals. He remained abstinent from cannabis for the duration of his treatment, but smoked tobacco for the majority of his treatment episode; smoking cessation became a goal in the few weeks preceding his treatment exit. During this time he independently purchased an e-cigarette.

Although receiving concurrent smoking cessation interventions for the duration of his fifteen-week treatment episode, Matthew stopped

smoking tobacco only after he had maintained several months' abstinence from cannabis in the community. Unlike cannabis, which he stopped abruptly and without professional support while in prison, Matthew reduced his tobacco use alongside e-cigarette use, continuing to vape regularly until shortly before treatment completion. He reported the perceived stress of the withdrawal period a significant factor in his inability to give up both simultaneously, explaining that he felt able to withstand the difficulties associated with quitting tobacco only once he had "got the cannabis out the way" first.

Upon treatment exit, he no longer met the criteria for cannabis use disorder, sustained at three- and six-month follow-up. During this time, he cited "a couple" of lapses, which occurred when he was socialising with cannabis-smoking friends and tended to be at large events such as New Years' Eve. At his final follow-up he reported more frequent lapses, which were categorised as "less than monthly" and all occurred in social settings.

Upon treatment exit, having stopped smoking tobacco, he also no longer met the criteria for nicotine dependence [24], which he sustained at three- but not six- or nine-month follow-up. At six- and nine- month follow-up, he had reinitiated smoking tobacco, which had increased gradually from "a few" up to approximately ten per day. He attributed his return to smoking cigarettes and, much less frequently, cannabis, to stress. He also felt that, of the two, it was "better" to return to smoking tobacco, stating that cannabis had the stronger negative impact in terms of offending, health and wellbeing.

Discussion

As well as illustrating how a heavy user successfully quit smoking both cannabis and tobacco, the current case study shows that simultaneous abstinence is not always effective, but successive abstinence can be achieved. It lends possible support to the gateway hypothesis [25,26], in that Matthew used tobacco (T) for a number of years before graduating to cannabis (C). Interestingly, the pattern he exhibited during his recovery journey is the mirror image (reverse) of substance initiation, suggesting (1) that both addiction and recovery may be additive processes and (2) that the gateway hypothesis may have application to substance cessation as well as substance initiation.

Initiation + Progression (+ T) → Initiation + Progression (T + C) → Abstinence (T - C) → Abstinence (- T) (None → Tobacco → Cannabis + Tobacco → Tobacco → (None)

Of further interest, Matthew's relapse followed the same pattern as initiation and progression of his tobacco and cannabis use, which suggests not only that relapse may be additive – and therefore substance recurrence can be applied to the gateway hypothesis – but that relapse prevention and aftercare work should account for whether a cannabis client is a current or historic smoker of tobacco (and vice versa). That dual abstinence was sustained at three-month follow-up is consistent with findings from Allsop et al. [20], who found increased tobacco use only among those who relapsed within the first month. This suggests that co-delivered tobacco and cannabis interventions may improve overall treatment outcomes.

Smoking cessation interventions in practice

At organisational level, recommendations for drug treatment providers include developing clinical pathways between substance misuse and smoking cessation services, and training and nominating service-level smoking cessation 'champions' [27]. At individual- and

service-level, it is the responsibility of substance misuse and healthcare professionals to, through advice and brief intervention, referral, and self-reflection, address and break down barriers such as [10,28]:

- The belief that smoking tobacco and/or cannabis alleviates stress
- The lack of awareness around access to substitute medication (e.g., e-cigarettes or nicotine replacement therapy)
- The lack of understanding around escalating nicotine dependence among cannabis users
- The belief that smoking cessation may inhibit recovery

The case study shows that, for some clients at least, smoking cessation interventions delivered as part of treatment for cannabis by community drug services can support dual or poly abstinence. Given that Matthew used it as a tool to support him in achieving over three months' tobacco cessation, this may also extend to the recommendation of e-cigarettes. However, the interventions focused on substance cessation and did not address stress reduction; as Matthew cited stress as a primary reason for use, there is a need to explore additional interventions that may yield better or longer-term results.

Evaluation

This case study takes only a tentative step towards integrating smoking cessation interventions into treatment provision for cannabis and, although it brings about some interesting points for discussion, more research is needed in community settings, including addressing underlying mechanisms for substance use, such as stress. Nevertheless, in an area where the research focuses almost exclusively on adolescents and young people, it provides valuable insight into adult community drug services and how they can tackle wider health determinants as part of service delivery.

As with all case studies, it provides only a very individual snapshot of current substance misuse provision, and receptiveness to (or delivery of) smoking cessation and drug treatment interventions will inevitably vary significantly between client, practitioner and provider. It also draws from retrospective self-reports, and therefore lacks both CO₂ and THC (tetrahydrocannabinol) validation. Furthermore, while it does succeed in supporting existing evidence, the difficulty in inferring causality between interventions and outcomes means the findings should be interpreted with due caution.

If extrapolated to wider substance misuse, this case report supports existing recommendations that smoking cessation interventions are both of need and value to current community drug treatment provision. It highlights a need for larger scale, more robust research that examines in depth the nature and extent to which smoking cessation interventions are integrated.

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