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COMMENT

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Clinician's perceptions and experiences with tobacco treatment in people who use cannabis: a qualitative study

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Abstract

Introduction Global demand for the treatment of cannabis use disorder has increased significantly, prompting a need to understand effective strategies for addressing concurrent cannabis and tobacco use. This study focuses on clinicians' experiences and perceptions in delivering tobacco cessation services to people who use cannabis.

Methods Fifteen participants (12 females, 3 males) participated in three homogenous focus groups, including two groups with extensive experience in providing tobacco cessation among the substance use population in Catalonia, Spain, and one group of clinicians without such experience. Thematic analysis was conducted to identify key patterns and insights in their discourse, focusing on shared themes and divergences across groups.

Results Five main themes and 17 subthemes emerged: Individual characteristics, Clinician characteristics, Models of intervention, Organizational healthcare models, and Health policies. Clinicians stressed the importance of intervention models and the active role of professionals in addressing tobacco use within routine care, as tobacco cessation could mitigate social and chronic stigma among people who use cannabis, especially those engaged in polydrug use.

Discussion and conclusions Recommendations included integrating tobacco cessation into all services, reducing healthcare service fragmentation, improving resource accessibility, enhancing clinical documentation, and advocating for stronger population-level tobacco control policies.

Trial registration The ACT-ATAC project has been successfully registered at Clinicaltrials.gov [NCT04841655].

Highlights

- Concurrent cannabis and tobacco use is widespread, making it crucial to gain insights from front-line clinicians to promote the cessation of both substances.
- Clinicians emphasize systemic fragmentation in tobacco interventions and the lack of coordination among several healthcare services.

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• Clinical professionals recommend addressing tobacco cessation as a crucial element for reducing chronicity among people who use several drugs, including cannabis.

• Discussions about tobacco use should be incorporated into group activities and treatments tailored based on individual characteristics.

• Collaboration among researchers, clinicians, and public health authorities is essential in developing tobacco cessation policy and treatment models based on personalized interventions.

Keywords Tobacco, Cannabis, Health policy, Healthcare services, Substance use

Introduction

Cannabis is the most commonly used illicit drug worldwide, with more than 192 million past-year adult people who used cannabis (aged 15 to 64 years), corresponding to 3.9% of the global population [1]. Epidemiological research suggests that the perceived easy availability of cannabis, coupled with perceptions of a low risk of harm, is the reason that cannabis has become the third most commonly used substance worldwide after tobacco and alcohol [2].

Approximately one out of six adolescents who use cannabis develop a cannabis use disorder, and the odds increase to one out of two when they consume it daily [3]. The risk of developing dependence on cannabis has been estimated to be 9% among those who have ever used the drug (even once). That rate increases to 17% among lifetime consumers who started using cannabis in adolescence [1]. In Spain, 35.2% of adults (aged 15 to 64 years) have ever consumed cannabis, and 9.1% in the last month [4]. And while occasional cannabis use has remained stable, daily cannabis use has risen significantly—from 1.7% in 2007 to 2.8% in 2022 [4]. This rise in daily has contributed to a marked increase in the number of adults with cannabis use disorder seeking cessation treatment [5]. This is evidenced by 3 out of 10 admissions to outpatient substance use treatment programs (SUPs) corresponding to cannabis, the third most common drug to generate admissions after alcohol and cocaine [6]. Most of these persons are young adults (average age 27 years) who seek treatment on their initiative (28%) or because of family pressure (16%) [7].

In Spain, as in the rest of Europe [8], the most frequent pattern of cannabis use is combining cannabis and tobacco in joints [9]. The co-use of cannabis and tobacco causes important health problems, including a higher frequency of psychosocial problems among people who use cannabis and greater psychiatric comorbidity [10], higher levels of dependence on the consumed substances [11], and greater difficulty quitting both substances, either together [12] or separately [13–15]. Given the strong relationship between tobacco and cannabis use, tobacco cessation is an important landmark for individuals who start a cannabis cessation program. A recent study found that quit ratios for tobacco use were much lower (less than half) among individuals who also use cannabis than among those who do not use cannabis [16].

Several feasibility studies have examined smoking cessation interventions targeting individuals who co-use cannabis and tobacco. Patients generally express satisfaction with the provided services; however, the cessation rates after 6 months of follow-up remain relatively low, with only 13% quitting tobacco and 5.2% quitting cannabis. Receiving treatment for cannabis use within SUPs can potentially enhance motivation to quit tobacco smoking in a supportive environment, creating an opportunity to embrace a healthier lifestyle while addressing cannabis dependence [17]. Despite this, individuals who co-use cannabis and tobacco often show limited interest in quitting and may even increase their tobacco consumption during treatment [18, 19].

To date, smoking cessation interventions targeting individuals who co-use cannabis and tobacco have primarily been conducted within the framework of research studies and are not routinely integrated into structured clinical healthcare protocols [18]. Nonetheless, healthcare professionals must identify individuals who co-use both substances and offer them personalized treatment, particularly for those with cannabis dependence. In Catalonia, the demand for cannabis treatment in SUPs has been increasing consistently since 2014. In contrast, treatment for nicotine addiction accounts for less than 5% of the total cases in SUPs [20, 21]. In Catalonia, the Drug Dependency Care Network provides healthcare services to the substance-use population via a range of facilities. However, the primary source of services is the Centers for the Attention and Follow-up of Patients (Centros de Atención y Seguimiento), known as CAS (Fig. 1). CAS comprises outpatient clinics staffed by a multidisciplinary team of professionals in medicine, psychiatry, nursing, psychology, social work, and other support personnel specializing in addiction treatment. These clinics offer comprehensive services, including the provision of information, counseling, treatment, and patient follow-up. If

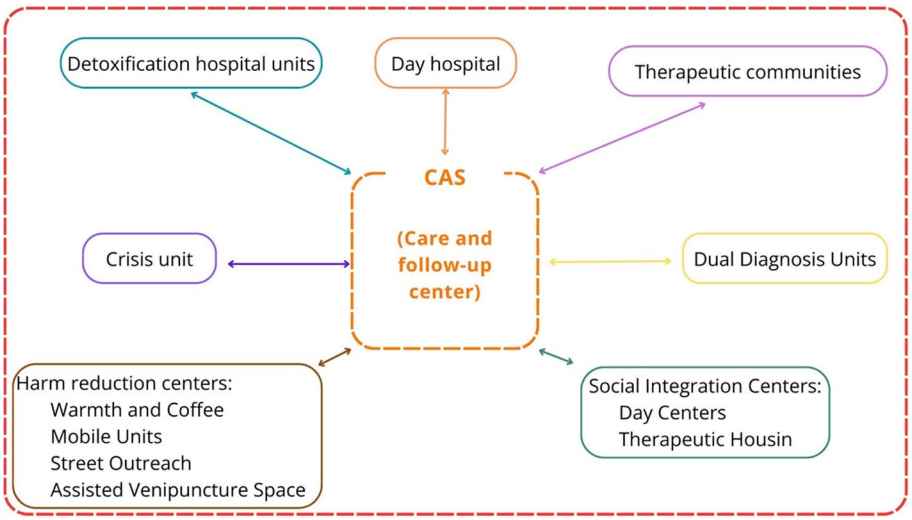

Fig. 1 Catalan drug use treatment network. Adapted from a figure posted by Catalan Agency of Public Health (https://drogues.gencat.cat/es/professionals/tractament/xarxa_de_recursos_assistencials/)

necessary, they also propose referrals to other rehabilitation units (Fig. 1).

With a total population of 7.5 million inhabitants, Catalonia boasts a widespread network of 61 CAS clinics. Individuals can access these clinics directly or through referrals from other healthcare professionals in various settings, such as hospitals or primary care facilities. The availability of CAS services throughout the region ensures accessible and specialized care for those in need of addiction treatment.

The current Catalan Plan for Drugs and Behavioral Addictions (2019–2023) prioritizes the provision of comprehensive, integrated, and continuous care for individuals with drug use disorders, to prevent any gaps in treatment [22]. Recognizing that a significant proportion (3 out of 4) of their clients smoke [23], the Catalan Plan incorporates tobacco cessation as an integral part of the CAS services. However, previous studies have reported that tobacco cessation is neglected in routine practice [20].

Gaining insight into the perspectives and experiences of clinicians treating drug use in regard to tobacco use during cannabis cessation programs is crucial considering the limited implementation of tobacco cessation interventions in daily practice in both Catalonia and other Western developed countries with popular cannabis use and increasing demand for treatment. Although previous studies have examined clinicians' views on tobacco cessation interventions[18], research specifically exploring the treatment of co-use with cannabis is lacking. With the increasing prevalence of cannabis and tobacco co-use and an increasing number of individuals seeking cannabis cessation treatment, it is essential to understand how healthcare professionals perceive and address this issue in their daily practice. Such understanding is key to facilitating the integration of these interventions at a system level within healthcare settings. Therefore, the objective of this study was to explore clinicians' perceptions and experiences in delivering tobacco cessation services to people who use cannabis and undergo treatment in SUPs in Catalonia.

Methods

As the initial phase of a broader mixed-methods research project intended to study tobacco cessation interventions in SUPs, we conducted an exploratory qualitative study. The study protocol was published previously [24]. To report the information gathered in this qualitative study, we employed the Consolidated Criteria for Reporting Qualitative Studies (COREQ) for in-depth interviews and focus groups (FGs) [25].

Study recruitment

To recruit participants, an online questionnaire was distributed from September to October 2019 to the coordinators of the 42 CAS clinics located in the province of Barcelona. The questionnaire was aimed at ascertaining the stance on tobacco cessation at each center and sought information on the population they serve, the types and numbers of professionals working at the center, the presence or absence of interventions for tobacco cessation, and the types of tobacco cessation interventions (individual/group). At the 31 centers that responded to the questionnaire (73.8% response rate), an average of eight

professionals from various disciplines provided care to people who use cannabis. Among these professionals, 64.5% reported engaging in interventions for tobacco use. However, only 18 CAS clinics (58.1%) expressed interest in participating in this sub-study of the project.

Sampling and representativeness

Sequential and cumulative purposive sampling was carried out [26], distributing the participants into three FGs. This sampling option, introduced by Von Hippel & Urban in 1988 at Massachusetts Institute of Technology, has been further developed by other authors in the context of "open innovation" [27], which encourages collaborative problem-solving and knowledge-sharing across disciplines. This approach enables a broader, richer, and deeper understanding of how clinicians apply solutions within their real-life experiences by incorporating diverse perspectives and insights.

In the first two FGs, priority was given to professionals who had extensive experience in providing tobacco cessation interventions while treating other substances within CAS. These professionals could be considered leaders on this topic within the territory [28]. Notably, the first two FGs also included clinicians from referral institutions, some of whom were already acquainted with each other.

To test the credibility and feasibility of the proposals, we organized a third FG consisting of clinicians who claimed to have no prior experience or training in tobacco cessation. Structural criteria, such as professional profile, gender, and location of the CAS clinic, were also considered in the composition of the groups (Table 1). Overall, 15 participants (12 females, 3 males) took part in the FGs, including 1 medical doctor, 3 psychiatrists, 7 psychologists, 3 nurses, 1 pharmacist assistant, and 1 occupational worker.

Procedure

The design of the FGs could be defined as small homogenous groups of people (between 4 to 6 participants per group) conducted with a discussion style [29]. Two moderators led the conversations in each case. The FGs were developed following a topic guideline with a

Table 1 Profiles of the participants in the focus groups according to their main characteristics

Person	Focus group	Profession	Sex	Provides smoking cessation interventions in his/her practice	Previous experience in smoking cessation
P1	FG1	Psychiatrist	Female	Yes	Yes
P2	FG1	Psychiatrist	Female	Yes	Yes
P3	FG1	Social worker	Female	Yes	Yes
P4	FG1	Psychologist	Male	Yes	Yes
P5	FG1	Psychologist	Female	Yes	Yes
P6	FG1	Psychologist	Female	Yes	Yes
P7	FG2	Psychologist	Male	Yes	Yes
P8	FG2	Psychiatrist	Female	Yes	Yes
P9	FG2	Nurse	Female	Yes	Yes
P10	FG2	Nurse	Female	Yes	Yes
P11	FG3	Nurse	Female	No	No
P12	FG3	Pharmacist assistant	Female	No	No
P13	FG3	Medical Doctor	Male	No	No
P14	FG3	Psychologist	Female	No	No
P15	FG3	Psychologist	Female	No	No

Table 2 List of discussion questions in the focus group script

Q1. Can you describe your users?

Q2. Based on your experience, what do you think helps or hinders your users to quit smoking? Exploration of the background of the professionals to identify if they positively visualize a specific smoking cessation intervention for this type of users. Include proposals for change and the conditions necessary for change to take place. Topics to explore:

- *What strategies work/could work best?*
- *What is/should be the best time during the consultation process to deliver a tobacco intervention?*
- *Are there (can there be) interactions between cannabis withdrawal therapy and a tobacco intervention?*
- *Is there involvement of health care organizations in relation to tobacco cessation interventions?*
- *Have social and health policies been developed in this area?*

progressive logic to open discussion questions related to the objective (Table 2). The way in which the FGs were conducted was more open than what is suggested in the literature, and a dynamic conversation around explicit positions was allowed to drive the debate[30]. This option was considered the most appropriate, rather than the single FG moderated by one person, for exploring differentiated discursive positions with qualified key informants, such as lead professionals (FG1 and FG2), and to contrast them later with professionals with little if any experience in the topic (FG3). The three FGs were conducted between October 2019 and February 2020. All of them were conducted in person and lasted 90–120 min each.

Material

All FGs were audio-recorded and notes were taken during the sessions. Each session involved a conductor and an observer to ensure comprehensive and effective data collection for the subsequent debriefing of the field researchers. All participants signed an informed consent form.

Data analysis

Data analysis was carried out using Atlas-ti. Initially, all focus group transcripts were thoroughly reviewed to identify any references to the provision of tobacco cessation services among people who use cannabis as reported by the clinicians. To systematically identify themes, we employed a two-stage approach that combined deductive and inductive methods, building on prior qualitative focus group research [29].

In the first stage, Thematic Categorical Content Analysis was performed to establish a structured set of thematic nodes, organizing the data into key categories based on predefined themes related to the study's objectives. This deductive approach allowed us to focus on relevant concepts identified in previous research while ensuring comprehensive coverage of the data.

In the second stage, we conducted an Interpretative-Pragmatic Analysis. This phase was inductive, considering the context and nuances of the participants' narratives. This approach allowed for a deeper exploration of clinicians' perspectives and how these were shaped by the contextual realities of their clinical environments.

To ensure the reliability and accuracy of the coding process, two researchers (XX, XX) independently coded the transcripts. Any discrepancies in coding were then reviewed and discussed between both coders and a third researcher (XX) to reach a consensus. This collaborative approach ensured a rigorous analysis process and strengthened the credibility of the findings [31].

Results

Tobacco cessation and its current approach in SUPs were broadly discussed in the FGs. Five main themes, with 17 subthemes, were identified: Individual characteristics, Clinician characteristics, Models of intervention, Organizational healthcare models, and Health policies (Fig. 2). Example quotations for themes and subthemes are provided below.

Profile of people who use cannabis

Professionals in the FGs, especially FG1 and FG2, suggested that tobacco cessation interventions should consider the complexity of people who use cannabis who come to CAS clinics for consultation. However, they also pointed out that this population does not differ significantly from other people who attend other healthcare services or are present in the community. They implied that people who use cannabis should not be socially stigmatized because of their cannabis use disorders and, as a clinical and social community, we should avoid labeling them negatively just because they have an addiction or a psychiatric problem. However, the participants also raised concerns about the frequent presence of social stereotypes and prejudices in Catalan (and Western) culture.

> *"I would like to make a point. Psychiatric pathology is very prevalent in the general population, as is comorbid drug use. We see (in the clinics) those who are at the tip of the iceberg… it represents an emerging vision of what is happening." -P2 (FG1)*

The participants confirmed three common characteristics that characterize the complexity and profiles of people who use cannabis. First, a high frequency of both organic and psychiatric co-morbidities was present. Second, polydrug use was common, as people who use cannabis tend to combine several illegal drugs in addition to the associated co-dependencies. Third, the vast majority of them are also tobacco smokers.

> *"They are people who, in a high percentage, consume 3–4 substances and have serious and severe disorders." -P4 (FG1)*

> *"They are people who start treatment in our outpatient clinics because they want to quit the main drug and who also smoke." -P7 (FG2)*

In all three FGs, there was a consensus that people who use cannabis seek help from the CAS, either voluntarily

Fig. 2 Thematic categories and subcategories

or with the assistance of their families, due to the problematic impact of the main drug. They are often referred by other healthcare services, mainly primary care. However, in both scenarios, individuals who use cannabis do not express a motivation to quit tobacco use, and they, their families, and other health professionals in the substance use community do not identify tobacco use as requiring treatment.

> *"Tobacco is an invisible problem because it is underestimated compared to other substances. As the main drug is more aggressive and illegal with a greater impact, when they say they smoke and you ask how many cigarettes they smoke, they answer that they smoke only a few cigarettes, about one pack a day, because for them it doesn't matter as much as the other substances." -P3 (FG1)*

Another issue to consider when adjusting interventions is that there are different patterns in cannabis and tobacco use among clients. On one hand, there are very young people for whom tobacco has negative connotations, unlike cannabis. In addition, young people who use cannabis are not even aware that they consume tobacco when they mix it with cannabis to make joints because, for them, tobacco is not the substance they want to consume, they want to consume cannabis. On the other hand, there are adults in their 30 s or early 40 s with several years of use who are part of a pro-cannabis culture with rituals and experience of use, such as cannabis clubs. A third group consists of people who moderately use cannabis aged 50–60 years old who have reduced their daily cannabis use and become occasional consumers, consuming one or two joints per day, or only using cannabis during the weekends.

> *"Unlike for young people, "la maria" (slang for marijuana in Spanish) is considered good, while tobacco is seen as bad. Although they might have a negative perception of tobacco when they consume other drugs, it is a minor issue." -P12 (FG3)*

> *"Cannabis consumers are experts, but it can be considered a culture. Now there is a fair and everyone smokes. They are super experts. Everyone there smoking... This is "Indica"...Now I've moved to the CBD...They're young, under 30 s, including 40 s." -P15 (FG3)*

> *"We attend people who now smoke only a joint per week, people who have reduced their consumption to only one or two joints per day (frequently they it called "good night joint" before going to sleep or*

"the weekend joint" used only to chill out on weekends)." -P14 (FG3)

Clinician characteristics

Another issue discussed in all three groups was the importance of considering the beliefs and professional practices of healthcare professionals working in SUPs, as these beliefs can either support or hinder the promotion of tobacco cessation. Participants highlighted the importance of reinforcing the clinician as a role model, ensuring the legitimacy of interventions.

"At this point, the belief of the professional has a lot to do with it. How they deliver the information, what they tell them... their motivation matters... it depends on their knowledge and how they handle their own relationship with tobacco." -P3 (FG1)

"If the person sees the professional smoking outside, credibility is lost." -P4 (FG1)

The lead professionals in FG1 and FG2 felt that they have the competencies to incorporate tobacco cessation into routine practice, just like experts in addiction treatment who possess skills in promoting motivation among people who use cannabis. Furthermore, they noted a generational change in the way patients are attended to at CAS clinics.

"In the past, the old-school clinicians did not include tobacco cessation as part of the treatment, and those who were pioneers in doing so were considered nerds (eccentrics). Fortunately, now many medical residents receive tobacco cessation training, making everything easier. Some of the new clinicians have been tutored by us, and they have successfully integrated tobacco cessation into their practice. The ones from our generation did not have references." -P1 (FG1)

Intervention models

For the intervention models, some controversies were identified between the professionals in the first two FGs (i.e., lead professionals) and FG3. The more experienced professionals reported that, according to their experience, it was not crucial to decide when to offer tobacco cessation during cannabis cessation treatment. They found that it was equally effective to use a concurrent model (quitting both substances at the same time) or a sequential approach (quitting one substance first and then the other). The key element in proposing one or the other approach was the individual's preference, respecting their choice while always working on motivating them to quit both substances.

Furthermore, clinicians in FG1 and FG2 highlighted the following actions to enhance the implementation of tobacco cessation interventions during substance use treatment. First, it is key to align tobacco cessation models with those of drug-dependence interventions. Thus, the cessation model should also include harm reduction, which focuses the intervention on minimizing the adverse consequences of tobacco use and not exclusively on abstinence. They also suggested reviewing the applicability of motivational interviewing in this group with dual pathology and felt competent approaching tobacco cessation with models that are more adapted to the type of person who uses cannabis.

"Of course, the idea is to increase self-efficacy, and then they take ownership of the process on their own. Harm reduction was frequently employed with heroin and alcohol before, and it proved effective ... The same principle applies to tobacco. There are chronic patients with whom I discuss creating guidelines for quitting smoking; it's also an intriguing approach." -P4 (FG1).

"We have been working with addictions for many years, so we can also address tobacco. It cannot be segmented from the continuum of an intervention model. Perhaps we don't need training." -P5 (FG1).

Professionals who are part of integrated intervention systems in which they can coordinate emphasize the importance of offering follow-up programs to patients with dual pathology, promoting and reinforcing abstinence from tobacco. These programs are regularly offered to both outpatients and inpatients attended to in the Catalan Health System. For tobacco cessation, clinicians frequently use a sequential model, addressing the main substance first, in this case cannabis, and then focusing on tobacco.

"At the ambulatory level, we implement a specific program for those who use tobacco (they are psychiatric patients with co-occurring disorders). We follow a classic approach: addressing other substances first and then tobacco. When we ask and register tobacco use in the clinical record, it's when some individuals express their desire to quit smoking that they enter this specific program, which has a defined duration (1 year) from its beginning to end." -P8 (FG2).

These same professionals agree on implementing more holistic approaches that also promote positive changes in health, and they are already putting this into practice in interdisciplinary teams. However, the perceptions of professionals in FG3 differed from those in

the other two FGs. Despite agreeing with the integrated approach, they do not feel that it is being effectively put into practice.

"Nurses usually work on promoting healthy lifestyles, and introduce strategies for change, such as physical activity, nutrition, motivation, … but one aspect that all patients have in common is that they smoke. And in this way start to work on tobacco cessation." -P9 (FG2).

"More transversal and comprehensive interventions are needed, for example, in sports, nutrition, etc.., we should not focus only on tobacco." -P11 (FG3)

In terms of therapeutic modality, the clinicians highlighted the benefits of group interventions, expressing their practices and the impact on patients in detail. On the other hand, a psychiatrist who participated in FG3 affirmed that tobacco is not addressed in the groups they lead because they limit themselves exclusively to harm reduction.

"They allow you to share your experiences with other people, and you can see that there are individuals at very different stages. This has an important therapeutic effect, a ripple effect, as it resonates with you and helps you become more aware." -P7 (FG2).

"It is not addressed…only if the demand is made. They are groups focused on reducing damage and risks…" -P1 (FG3)

Organizational models

The perceptions of the professionals consulted in all three FGs were that the current organizational/management models are still fragmented, and how to address the physical and psychological co-morbidities of patients is not clear.

"It is nonsense. Patients have co-morbidities, so why this partiality? Why is there not a good integration between what is done in the primary care, in hospitals, and in the CAS?" -P2 (FG2)

Thus, the proposal for action was to reduce the fragmentation between the different levels and facilities of the health system. The current organization does not favor the integration of tobacco cessation in professional practice due to a lack of resources. Services are not well integrated between the network of SUPs and other health services such as acute hospitals, primary care centers, etc.

"Tobacco cessation is a task that is usually done in primary care centers, but it is not included in our portfolio. We are responsible for other types of tasks, such as conducting alcohol groups and providing methadone dosage, among others. However, the general view is that no one expects us to provide smoking cessation services in CAS." -P13 (FG3)

To improve organizational aspects of drug dependence care, the clinicians suggested reviewing the smoking ban regulations, especially when hospitalization is needed. In Spain, smoking is banned in acute hospitals, indoors on all premises, and on the grounds of acute hospitals. This introduces a challenge in treating tobacco use, especially if patients require hospitalization. Regarding compliance with the smoke-free laws, there was no unanimous agreement on whether it is positive for those who are admitted to hospitals to quit their main drug of use. Nevertheless, some clinicians stated that the introduction of a national law (Law 42/2010) in 2011 that banned smoking outdoors on acute hospital premises forced them to introduce smoking cessation in their protocols. In other cases, the smoking ban was seen as a barrier to entering detoxification units.

"In our center, we have four beds for patients with dual pathology who enter our unit for detoxification from other drugs and are also required to quit smoking due to the tobacco law. Substitute treatment is given to them. Upon discharge, they can enter smoking cessation programs." -P9 (FG2)

"I think that those who quit the main substance when it comes to tobacco, they delay quitting and only do it when they arrive at primary care. They say, 'I only have tobacco.' It doesn't help at all that hospitalization units do not allow smoking because then they are reluctant to enter due to the discomfort of being without tobacco." -P4 (FG1)

Health policies

Participants in the FGs suggested three elements to improve the implementation of tobacco cessation interventions related to health policy regulation. The first suggestion was that the current tobacco legislation is outdated and needs to be improved. Participants also identified that these changes are more evident in more structured healthcare settings (clinical environments with structured protocols and consistent procedures) and do not reach people who use cannabis and attend CAS effectively. The second issue is the need to improve access to treatment. Indeed, the lack of centers forces some centers and their professionals to cover a large territory with a high volume of patients comprising different types of people who use cannabis, some rural and others urban, with different profiles. In addition, they claim a lack of

professionals to adequately attend to these complex individuals. The third issue highlights the need to review the governmental Information System Records in which professionals must enter data from the intake interview, as it may hinder therapeutic interventions for tobacco.

> *"Institutional policies must change at the level of legislation on tobacco, as it has been proven that they are very effective. Currently, this lack works against us. We need 1) an increase in the price of tobacco; 2) restrictions on consumption in certain areas; and 3) advertising changes to promote awareness." -P7 (FG2)*

> *"The Addictions and Mental Health Network is the one that has had the least resources. For example, we only have one and a half psychiatry professionals for 400,000 people." -P7 (FG2)*

> *"I think there are many professionals overwhelmed with their workload who cannot effectively address tobacco cessation. Some professionals even fail to inquire about tobacco use in the toxicological history. Moreover, the Drug Addiction Information System (SID), which is under the government's purview, does not include specific fields to record tobacco-related data. Instead, it focuses on standard data for conducting epidemiological studies." -P7 (FG2)*

Topic frequency and interconnections

Of the five topics reported, two stand out: the models of intervention and the engagement of clinicians in attending these two substances in routine practice. Clinicians' proposals for understanding this complex problem should be considered to move this topic forward from the day-to-day clinical practice to the health policy level. Nonetheless, the structural themes are interwoven in such a way that changes in one area affect the others.

Discussion

This qualitative research suggests that SUPs in Catalonia can enhance tobacco cessation services for individuals who co-use cannabis and tobacco. The study explored five main themes: Individual characteristics, Clinician characteristics, Intervention models, Organizational healthcare structures, and Health policies. Among these, the clinicians emphasized intervention models and the active involvement of healthcare professionals in addressing tobacco use in regular practice. Their proposals include promoting the integration of tobacco cessation across all services, overcoming fragmentation in healthcare services, enhancing access to resources, improving clinical records, and advocating for more robust tobacco control policies at the population level. It is essential to recognize that these structural themes are closely interconnected and addressing them collectively can lead to more effective outcomes in combatting tobacco and substance use. By implementing the clinicians' recommendations, we can move towards a comprehensive approach that positively impacts the individual's well-being and public health.

Individual and clinician characteristics

Most people who use cannabis who attend CAS clinics in Spain and other European countries also use tobacco [32]. However, the level of implementation of tobacco cessation services in SUPs in Spain remains low [20]. Similarly, a national study in the US reported that only one out of three substances use treatment centers include this service [33, 34]. The main barriers identified include limited time, perceived lack of client interest [35, 36], and clinician cultural reluctance to include tobacco as part of the addiction treatment programs [37]. Similarly, other studies have shown that clinicians frequently believe patients with drug use or mental health issues are resistant to quitting smoking, particularly when they are undergoing treatment for other substance use disorders [38, 39]. Additionally, a high level of misclassification and the neglect of smoking records have been identified in Catalonia, underscoring the low priority given to addressing tobacco use [40].

The effectiveness of tailoring interventions to the unique characteristics of individuals to meet their specific needs has been well-established [41]. However, the literature remains inconclusive regarding the extent to which co-use of cannabis and tobacco affects treatment outcomes. Despite this uncertainty, emerging evidence highlights the negative consequences of tobacco use among people who use cannabis and underscores the need for innovative treatment approaches aimed at the cessation of both substances, tailored to the preferences of these individuals [42]. This perspective aligns with findings from a recent national survey in the US, where 55% of individuals who co-use tobacco and cannabis expressed a strong interest in quitting [43]. Therefore, it is crucial to implement organizational changes within the Spanish health system to address this growing trend effectively.

A frequent barrier to the implementation of tobacco cessation services is a deficiency in training and expertise in tobacco cessation among clinicians [18, 37]. Clinicians often feel uncertain about guiding tobacco cessation due to a lack of confidence in the type of support they should offer [38, 44]. Despite this, our groups of more experienced clinicians felt that they are experts in the treatment of drug addiction and have been trained in motivational techniques. Therefore, they considered most clinicians

who treat drug use to have the basic knowledge to provide smoking cessation support. In contrast, a recent qualitative study showed that certified smoking cessation providers lack knowledge to treat cannabis among people who use cannabis who use tobacco at the same time [45] A different matter is the importance clinicians give to tobacco cessation, how they prioritize this over other issues, and how supportive they are in helping people who smoke to quit in their organizations [46]. Thus, there is a need to change narratives and modify the environment, as suggested by participants in these studies [47].

Model of intervention

Participants in this study reported that the promotion of tobacco cessation is not a widespread practice in drug use programs despite most people who use cannabis also consume tobacco, particularly in joints. In this sense, experienced clinicians in smoking cessation reflected a specific focus on the harm reduction model that often prioritizes substances considered more immediately harmful, such as opioids or stimulants, over tobacco. In these settings, addressing acute risks often takes precedence, resulting in less emphasis on tobacco cessation. While this approach aims to mitigate the most immediate harm, it may inadvertently overlook the chronic risks associated with tobacco. This insight points to a potential gap in harm reduction frameworks, emphasizing the need for a more integrated approach that includes tobacco cessation.

Currently, two intervention models are informally recognized in SUPs: tobacco cessation led by primary care and tobacco cessation offered outside of the SUP's portfolio. Additionally, a clear profile of people who consume cannabis remains undefined. People who use cannabis and tobacco are very heterogenous, including people who use several substances who have quit them but continue using cannabis and tobacco (previously smoked a high number of cigarettes per day), as opposed to younger people for whom cannabis became the gateway to smoking cigarettes [48], and they normally trivialize their tobacco consumption. In response to this diversity, a comprehensive and flexible treatment approach has been proposed.

This perspective is novel and highlights the need for innovative treatment strategies that address the cessation of both cannabis and tobacco, given the psychological, physical, and health consequences often faced by polydrug and long-term people who use cannabis [42].

Organizational models

Current organizational models do not facilitate the delivery of tobacco cessation interventions. Rojewski et. al recommend integrating tobacco cessation services across all levels, highlighting the need for clinician involvement, appropriate records, and continuity of care [49]. Participating professionals advocate for a unified approach within Substance Use Programs (SUPs) to ensure seamless care for vulnerable individuals with substance use disorders, many of whom lack resources for nicotine replacement therapy. Key recommendations include routinely assessing smoking status, offering cessation support, using motivational strategies for unprepared patients, incorporating tobacco treatment into electronic records, involving diverse clinical roles, establishing referral systems, and promoting accountability and evaluation [49]. A qualitative study among practitioners in the UK who provide tobacco cessation treatment in special clinics for general population who smoke pointed out the lack of access to appropriate recording systems [45]. However, as highlighted by our participants in Spain [50], as in numerous other nations [51], a fragmented integration of tobacco cessation measures occurs across various tiers of healthcare, encompassing primary care, hospitals, and specialized units. To surmount this longstanding challenge, it is imperative to enlist the support of frontline providers, particularly those endowed with extensive expertise in implementing tobacco cessation within their practices.

In this way, some evidence supports the introduction of tobacco cessation as an integrated part of the continuum of care among the substance-use population. This strategic approach is indispensable in elevating the quality of treatment and enhancing engagement. In a Texas-based study conducted across 15 substance use treatment centers, organizational modifications were introduced to bolster the adoption and efficacy of tobacco cessation programs within the context of substance use treatment [52]. This comprehensive tobacco control initiative encompassed a spectrum of interventions, including policy reforms, rigorous training, resource provisioning, and technical assistance. Additional studies reinforced the notion that augmenting the delivery of evidence-based interventions could amplify quit attempts and foster reduced tobacco consumption during treatment among patients grappling with substance use disorders and concurrent smoking consumption [53, 54].

Health policies

Clinicians in this study called for a comprehensive review of health policies to prioritize tobacco cessation

services for all, including those with drug use issues. They emphasized the importance of implementing smoke-free regulations, particularly in substance-use treatment facilities, as tobacco-free environments have been identified as mechanisms that promote quit attempts and increase the use of cessation services [55, 56]. In terms of treatments, free-of-charge interventions correlate with heightened attempt rates for tobacco cessation [57]. Importantly, Spain's health system is designed to be universal, theoretically eliminating inequalities in service delivery. In addition, since January 2020, certain tobacco treatments have been made available without cost [58]. Incorporating these policy revisions and provisions can foster a more supportive environment for tobacco cessation endeavors among individuals facing challenges with substance use. By offering cost-free treatments and establishing smoke-free spaces, we can empower more individuals to embark on the path toward quitting smoking.

Limitations

This study was conducted in Barcelona province, an area of 4 million inhabitants living in urban and rural areas. Participants were clinicians who voluntarily participated in the study and mostly worked in urban areas. In addition, the sample included three groups, two of which were homogenous in terms of providing tobacco cessation, and one group composed of health professionals who did not provide tobacco cessation and had not received previous training. This third group was more difficult to recruit due to the lack of enthusiasm for the topic. However, despite the small group, the participants provided important information about the barriers and solutions that were similar to those identified by the groups of experts. Notably, these sessions were conducted before the COVID-19 pandemic and, due to changes in some day-to-day procedures, participants would probably have experienced even more barriers during the pandemic. Nevertheless, the activity of SUPs has resumed, and the situation is very similar to what it was in 2019.

While other studies have examined barriers and proposed solutions in mental health clinics [39] and the healthcare system in general [49], including specialized tobacco cessation services [45] our work is the first to specifically address and propose strategies for enhancing tobacco cessation services for individuals in SUPs. This gap in service provision is significant, as individuals in these programs do not consistently receive tobacco cessation support, despite high rates of tobacco use. Although our findings are specific to our study context, they hold broader implications and can inform similar settings, highlighting the need for integrated tobacco cessation support across substance use treatment programs. This work contributes valuable insights to policy and practice in tobacco cessation, offering benefits that are relevant and potentially generalizable to substance use treatment settings worldwide.

Conclusion

This study emphasizes the importance of overcoming systemic fragmentation in tobacco cessation interventions and addressing tobacco use when treating cannabis in SUPs. Integrating tobacco cessation into SUP portfolios can benefit both individuals and professionals, reducing morbidity and mortality rates and social exclusion. The integration of innovative solutions and practices by experienced professionals is crucial and, if proven effective, their assessment and incorporation into structured healthcare protocols are essential. Researchers, clinicians, and public health authorities must collaborate to explore motivation-driven care models and personalized therapeutic strategies. This study provides insights into integrating cessation discussions into group activities, fostering smoker motivation, and tailoring treatments based on individual traits. These recommendations could empower practitioners to devise a more potent, all-encompassing approach to addressing tobacco cessation among people who use cannabis in SUPs.

Abbreviations

CAS	Centers for the Attention and Follow-up of Patients (Centros de Atención y Seguimiento)
SUPs	Substance use Treatment Programs
COREQ	Consolidated Criteria for Reporting Qualitative Studies
FGs	Focus Groups

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Authors' contributions

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Data availability
Data availability under request.

Declarations

Ethics approval and consent to participate
The research protocol has been submitted and approved by the Clinical Research Ethics Committee (CREC) of the University Hospital of Bellvitge [PR315/20] and the CREC of each participating organization. All participants (individuals who use cannabis and clinicians) gave their informed consent to participate.

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Competing interests
The authors declare no competing interests.

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