Perceptions and experiences of clinicians treating tobacco use among cannabis users in substance use treatment programs: A qualitative study

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Abstract

Background

The global demand for treatment of cannabis use disorder has significantly increased, prompting a need to understand effective strategies for addressing concurrent cannabis and tobacco use. This study focuses on clinicians' experiences and perceptions in delivering smoking cessation services to cannabis users.

Methods

Three focus groups consisting of substance use professionals in Catalonia, Spain, were analyzed using Atlas-ti software, revealing five main themes and 17 subthemes: (i) User characteristics; (ii) Professional characteristics; (iii) Models of intervention; (iv) Organizational healthcare models; and (v) Health policies. Clinicians stressed the importance of intervention models and the active role of professionals in addressing tobacco use within routine care.

Results

Clinicians believed that tobacco cessation could mitigate social isolation and chronic issues among cannabis users, especially those engaged in polydrug use. Recommendations included integrating smoking cessation into all services, reducing healthcare service fragmentation, improving resource accessibility, enhancing clinical documentation, and advocating for stronger population-level tobacco control policies.

Conclusions

Clinicians suggested adopting a personalized therapeutic approach, implementing a more comprehensive model with increased resources, and reinforcing population-level tobacco control policies to enhance intervention effectiveness.

BACKGROUND

Cannabis is the most used illicit drug worldwide with over 192 million past-year adult users (aged 15 to 64), 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, makes cannabis, after tobacco and alcohol, the most common substance used worldwide [2].

Approximately one out of six adolescents who use marihuana develop a cannabis use disorder, and the odds increase to one out of two when the consumption is daily [3]. The risk of developing dependence on cannabis among those who have ever used the drug (even once) has been estimated at 9% by studies in the United States. That rate rose to 17% among lifetime users who started using cannabis in adolescence [1].

In Spain, 35.2% of adults (aged 15 to 64) have ever consumed cannabis in their life and about 9.1% in the last month. Consequently, and due to its increase, the number of cases of adults with a cannabis use disorder who seek cannabis cessation treatment has markedly increased in Spain [4]. Thus, in 2017, three out of 10 admissions to outpatient substance use treatment programs corresponded to cannabis [5] becoming the third drug that generated more admissions behind alcohol and cocaine [5]. Most of these persons are young adults (average age of 27) who seek treatment either on their own initiative (28%) or because of family pressure (16%) [6].

In Spain, like in the rest of Europe [7], the most frequent pattern of cannabis use is combining cannabis and tobacco in joints [8]. The use of cannabis-tobacco (co-use) causes important health problems, including a higher frequency of psychosocial problems among users and larger psychiatric comorbidity [9]; higher levels of dependence on any of the substances consumed [10]; and more difficulty in quitting both substances together [11] or separately [12–14]. Consequently, tobacco cessation is an important landmark for all individuals who start a cannabis cessation program, given the strong relationship between tobacco and cannabis use. According to a recent study, smoking-quit ratios among people with cannabis use are much lower (less than half) than among people without cannabis use [15].

Receiving cannabis treatment in substance use treatment programs (SUP) could increase the motivation to quit smoking in a favorable and healthy environment while quitting cannabis, representing an opportunity to gain a healthy lifestyle [16]. Cannabis dependent users who smoke tobacco show little interest in quitting and frequently increase their tobacco use during their treatment process [17, 18].

Nevertheless, several feasibility studies have examined smoking cessation interventions targeting individuals who use both cannabis and tobacco. These studies have shown that patients generally express satisfaction with the services provided. However, the rates of cessation at six months follow-up were relatively low, with 13% for tobacco and 5.2% for cannabis [19–21]. Unfortunately, this type of intervention has primarily been conducted within the framework of research studies and is not routinely integrated into standard clinical protocols [22]. Nonetheless, it is crucial for healthcare professionals to identify individuals who are co-users and offer personalized treatment, particularly for those with cannabis dependence. Research has shown that co-users who also use tobacco are significantly less likely to quit cannabis compared to non-tobacco users [15].

The contextual situation in Catalonia (Spain).

In Catalonia, the demand for cannabis treatment in Substance Use Treatment Programs (SUPs) has been consistently increasing since 2014, being - as in the rest of Spain – the third most treated drug in SUPs [23]. In contrast, the number of cases treated for nicotine addiction in SUPs has remained suboptimal, accounting for less than 5% of the total cases [23, 24].

In Catalonia, the Drug Dependency Care Network provides healthcare services to the substance use population through a range of facilities. However, the primary source of attendance is the Centers for the Attention and Follow-up of patients (Centros de Atención y Seguimiento – known as CAS) (see Fig. 1). CAS are outpatient clinics specializing in addiction treatment, staffed by a multidisciplinary team of professionals in medicine, psychiatry, nursing, psychology, social workers, and other supporting personnel. These centers offer comprehensive services, including information, counseling, treatment, and patient follow-up. If necessary, they also propose referrals to other units of rehabilitation (see Fig. 1).

Source: Adaptation of the original figure posted on the web of the Catalan Agency of Public Health (click: link)

Catalonia, with a total population of 7.5 million inhabitants, boasts a network of 61 CAS spread across the territory. 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 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 issues, aiming to prevent any gaps in treatment.[25] Recognizing that a significant proportion of their clients are smokers (3 out 4) [26], the Plan incorporates tobacco cessation as an integral part of its services in their route. However, previous studies have reported how tobacco cessation is neglected for routine practice in CAS [24].

Considering the limited implementation of smoking cessation interventions in daily practice, both in Catalonia (Spain) and other developed Western countries with popular cannabis use and increasing demand for treatment, gaining insight into the perspectives and experiences of drug use treatment clinicians regarding tobacco treatment during cannabis cessation programs becomes crucial. While previous studies have examined substance use clinicians' views on tobacco cessation interventions [22], there is a lack of prior research specifically exploring the treatment of co-use. With the rising prevalence of dual cannabis and tobacco use and an increasing number of individuals seeking cannabis cessation treatment, it becomes essential to understand how healthcare professionals perceive and address this issue in their daily practice. Such understanding is necessary to facilitate the integration of these interventions at a system level within healthcare settings. Therefore, the objective of this study is to explore clinicians' perceptions and experiences in delivering smoking cessation services to cannabis users undergoing treatment in drug use programs in Catalonia.

METHODS

As the initial phase of a broader mixed-methods research project intended to study tobacco cessation interventions in substance use treatment programs an exploratory qualitative study was conducted [27].

To report the information gathered in this qualitative study we have employed the Consolidated criteria for reporting qualitative studies (COREQ) for in-depth interviews and focus groups [28].

Recruitment

To recruit the participants, a questionnaire was distributed to the coordinators of the 42 CAS in the province of Barcelona in the fall of 2019 (from September to October). The questionnaire was distributed online and aimed to ascertain the stance on smoking cessation in each center. The questionnaire sought information on the following aspects

a) The population they serve,

b) The types and number of professionals working at the centers,
c) The presence or absence of assistance for smoking cessation,
d) The types of interventions conducted (individual/group), and
e) The presence or absence of treatments for smoking cessation.

Out of the 31 centers that responded to the questionnaire (73.8% response rate), it was revealed that, on average, eight professionals from various disciplines provide care to users. Among these professionals, 64.5% reported engaging in tobacco intervention. However, only 18 CAS (58.1%) expressed interest in participating in this sub-study of the project.

Sampling and representativeness

Sequential (Miles & Huberman) and cumulative (Straus & Corbin) purposive sampling was carried out, distributing the participants into three focus groups (FGs). This sampling option, introduced by Von Hippel & Urban in 1988 at MIT (Massachusetts Institute of Technology), has been further developed by other authors in the context of "open innovation" [29], and has allowed for a broader, richer, and deeper understanding of how clinicians apply solutions in the context of their real-life experiences.

In the first two groups, priority was given to professionals who had extensive experience in CAS, providing smoking cessation interventions while treating other substances. These professionals could be considered leaders on this topic within the territory [30]. Additionally, it's worth noting that the first two FGs involved clinicians from referral institutions, some of whom were already acquainted with each other.

To test the credibility and feasibility of the proposals, a third FG was organized, consisting of professionals who claimed to have no prior experience or training in this field. Structural criteria, such as professional profile, gender, and location of the CAS, were also considered in the composition of the three groups (see Table 1). Overall, 15 participants participated in the FGs, 12 of them were female, and 3 were males. The participants were composed of 1 medical doctor, 3 psychiatrists, 7 psychologists, 3 nurses, 1 pharmacist assistant, and 1 occupational worker.

Table 1
Profiles of the participants in the Focus Groups according to their main characteristics

Person	Group	Profession	Sex	Provides smoking cessation interventions in his/her practice	Previous experience in smoking cessation
P1	G1	Psychiatrist	Female	yes	yes
P2	G1	Psychiatrist	Female	yes	yes
P3	G1	Social worker	Female	yes	yes
P4	G1	Psychologist	Male	yes	yes
P5	G1	Psychologist	Female	yes	yes
P6	G1	Psychologist	Female	yes	yes
P7	G2	Psychologist	Male	yes	yes
P8	G2	Psychiatrist	Female	yes	yes
P9	G2	Nurse	Female	yes	yes
P10	G2	Nurse	Female	yes	yes
P11	G3	Nurse	Female	no	no
P12	G3	Pharmacist assistant	Female	no	no
P13	G3	Doctor	Male	no	no
P14	G3	Psychologist	Female	no	no
P15	G3	Psychologist	Female	no	no

Procedure.

In brief, the design of the FGs could be defined as a small homogenous group of people (between 4 to 6 participants per group), in which a discursive style with two moderators in each case was employed [31].

The FGs were developed following a script with a progressive logic of open discussion questions in relation to the objective (Table 2). The way in which the FGs were conducted was more open than what is suggested in the literature on FGs and a dynamic of debate around explicit positions was allowed to promote debate [32]. This option, in relation to the single focus group moderated by one person, was considered the most appropriate to explore differentiated discursive positions with qualified key informants such as lead professionals (FG1 and FG2) and to contrast them later with professionals with little or no experience in tobacco intervention (FG3).

The three FGs were conducted between October 2019 to February 2020. All of them were conducted in person and lasted 90–120 minutes each.

Material

All the material was 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 practitioners signed the informed consent form.

Table 2
List of discussion questions of 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 in 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?

Data analysis.

Data analysis was conducted using Atlas-ti. We reviewed the transcripts to identify information about the provision of tobacco cessation services addressed to cannabis users who attend outpatient public substance use clinics (CAS) in Catalonia, as reported by clinicians. To identify themes, we used a two-stage deductive and inductive approach, based on previous qualitative focus group research[31].

a. First, we conducted Thematical Categorical Content Analysis (AC_ct), involving the structuring of thematic nodes, and
b. Second, we conducted an interpretative-pragmatic analysis, which considered the context of the participants' narrative production.
Two researchers coded the transcripts and discrepancies were reviewed by both coders and a third researcher.

RESULTS

Tobacco cessation and its current approach in substance use treatment programs was broadly discussed among focus groups. Five main themes and 17 subthemes were identified including (i) user's characteristics; (ii) professionals' characteristics; (iii) models of intervention; (iv) organizational health care models, and (v) health policies (Fig. 2). Example quotations for themes and subthemes are listed below.

Profile of the cannabis users at the CAS

Professionals in the groups (Gs) – especially G1 and G2- suggested that tobacco cessation interventions should consider the **complexity of users** who come to the CAS for consultation. However, they also pointed out that these users do not differ significantly from other users who attend other healthcare services or are in the community. They implied that cannabis users should not be **socially stigmatized** because of their cannabis use disorders, and as a clinical and social community, we should avoid labelling them negatively just because they have an addiction or a psychiatric problem. However, they also raised concerns about the frequent presence **of social stereotypes** and prejudices in Catalan (and Western) culture.

P2-G1: *"I would like to make a point. Psychiatric pathology is very prevalent in the general population, as is co-morbid 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".*

The professionals confirmed three **common characteristics** present in these users:

- The first is the high frequency of both **organic and psychiatric co-morbidities** among these group.
- The second is **poly-drug use**, as they combine several illegal drugs in addition to the associated co-dependencies.

P4-G1: "*They are users who, in a high percentage, consume 3–4 substances and have serious and severe disorders."*

- And the third is that the **vast majority of them are smokers**.

P7-G2: *"They are users who start treatment in our outpatient clinics because they want to quit the main drug and who also smoke".*

In all three FGs, there is a consensus that users seek help at the CAS due to the problematic impact of the main drug, either voluntarily or with the assistance of their families. They are often referred by other healthcare services, mainly primary care. However, in both scenarios, they do not express a motivation to quit tobacco use, and neither they, their families, nor other health professionals in the substance use community identify tobacco as a potential treatment option.

P3-G1: *"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".*

Another issue to consider when adjusting interventions is that there are **different patterns of cannabis and tobacco** use among clients.

- On one hand, there are very young people for whom tobacco has negative connotations, unlike cannabis. Additionally, young cannabis users 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.

According to P1-G3: *"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.*

- On the other hand, there are young adults with years of use (between 30–40 years) who are part of a pro-cannabis culture with rituals and experience of use, such as cannabis clubs.

As P15-G3· mentions: *"Cannabis consumers are experts, but it can be considered a culture. P5 (All). 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, including 40. (P15G3).*

- A third group consists of moderate cannabis users aged 50–60 who have reduced their daily cannabis use and now have become occasional users, consuming one or two joints per day, or only using cannabis during the weekends.

As described by P14G3: "*We attend people who now smoke only a joint per week, people who smoke a residual joint (good night on weekends). (P14G3)"*

Professional characteristics

Another issue discussed in all three groups was the importance of considering the **beliefs** and **professional practices** of health professionals working in substance use programs, as these beliefs can either support or hinder the promotion of the smoking cessation support relationship.

As mentioned by a participant in P3-G1: "*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*."

This highlights the significance of reinforcing the **role model** that ensures the legitimacy of interventions.

As emphasized by P4-G1: *"If the user sees the professional smoking outside, credibility is lost."*

The "lead professionals" believe that they have the **competencies** to incorporate tobacco cessation into routine practice, just like experts in addiction who possess skills in promoting motivation among users. Furthermore, they note a **generational change** in the way patients are attended to in CAS.

P1-G1: *"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). Unfortunately, now many residents receive tobacco cessation training, making everything easier. In fact, some of the new clinicians have been tutored by us, and they have successfully integrated tobacco* cessation into their practice*. The ones from our regeneration did not have references."*

Intervention Models:

This is where some **controversies** were identified between the professionals of the first two FGs (lead professionals) and FG3, which consisted of professionals with less experience in smoking cessation. The more experienced professionals reported that, according to their experience, it was not crucial to decide when to offer smoking cessation during the cannabis cessation treatment. They found that it was equally effective to use either 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 relied on the users' preference, respecting their choice, while always working on motivating them to promote quitting both substances as experts in the field.

Additionally, clinicians in G1 and G2 highlighted the following actions to **enhance the implementation** of tobacco cessation interventions during substance use treatment.

First, it is key to align smoking cessation models with drug dependence intervention models. 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.

P4-G1: *" 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."*

In the same vein, they suggest reviewing the applicability of motivational interviewing in users with dual pathology and feel competent to approach smoking cessation with models that are **more adapted to the type of** user:

As expressed by P5-G1: *"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".*

Professionals who are part of integrated intervention systems (lead professionals), where they can work in coordination, emphasize the **importance of offering follow-up programs to patients with dual pathology, which promote and reinforce abstinence from tobacco**. These programs are regularly offered to both outpatient and inpatients attended in the Catalan Health System. For tobacco cessation, clinicians frequently use a sequential model, addressing the main substance first (in this case tobacco) and then focusing on tobacco.

P8-G2 explains: *"At the ambulatory level, we implement a specific program for tobacco users (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."*

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.

As stated by P9-G2: "*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.".*

However, the perception of professionals in the G3 differs. Despite agreeing with the integrated approach, they do not feel that it is being effectively put into practice. A CAS nurse expresses this concern:

P11G3: *"More transversal and comprehensive interventions are needed, for example, in sports, nutrition, etc.., we should not focus only on tobacco*"

In terms of therapeutic modality, the clinicians, especially the "lead professionals" **highlight the benefits of group interventions**, expressing in detail their practices and the impact on the users.

As stated by P7G2, CAS psychologist: *"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".*

On the other hand, a doctor-psychiatrist, who participated in the G3, affirms that tobacco is not addressed in the groups they lead, as they limit themselves exclusively to risk reduction.

P1-G3: *"It is not addressed...only if the demand is made. They are groups focused on reducing damage and risks...".*

Organizational Models

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

As expressed by a participant in P2G2: "*It is not sense. Patients have co-morbidities, so why this partiality? why there is not a good integration between what is done in the primary care, in hospitals, and in the CAS?"*

Thus, the proposal for action was:

- First 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 the **lack of resources** and **low integration** of services between what is done in the network of substance use programs and public health.

As P13-G3 stated: *"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."*

- Second, to **improve organizational aspects of drug dependence care**, there was a suggestion to review the **smoking ban regulations**, especially when hospitalization is needed. In Spain, smoking is banned in acute hospitals, indoors on all the premises, and on the grounds of acute hospitals. This introduces a challenge in treating tobacco use, especially if patients require hospitalization.

As for compliance with the smoke-free ban, there was no unanimous agreement on whether it was positive for users who are admitted to hospitals to quit their main drug. Nevertheless, some clinicians stated that the introduction of the national ban in 2011 that banned smoking forced them to introduce smoking cessation in their protocols.

As stated by P9-G2: *"In our center, we have 4 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".*

In other cases, the smoking ban was seen as a barrier to entering detoxification units:

P4-G1: *"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*."

Health policies

Participants in the FGs suggested three elements for improvement in the implementation of tobacco cessation interventions that relate to health policy regulation.

- The first suggestion is that the **current tobacco legislation is outdated** and needs to be **improved**. Participants also identified that these changes are more evident in more standardized settings and do not reach CAS users effectively.:

P7-G2: "*It is necessary for institutional policies to 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.".*

- The second issue is the need to **improve the access to better resources**. In some cases, some center a large volume of patients in large territories where different types of users coexist (some are rural and other urban patients, with different profiles). What it is more they claim that there is a **lack of professionals** to attend to these complex individuals adequately.

P7G2: *"The Addictions and Mental Health Network is the one that has had the least resources. For example, we only have 1 and a half Psychiatry professionals for 400,000 people."*

- The third issue highlights the need to review the governmental **Information System Records** where professionals have to enter data from the intake interview, as it may currently hinder therapeutic intervention regarding tobacco.

P7-G2: *"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."*

From the five topics reported, two stand out the models of intervention and the engagement of clinicians in attending these two substances in their routine practice. Clinicians' proposals to understand this complex problem should be considered to move forward this topic from their day to day of their clinical practice to a higher health policy level. Nonetheless, as the participants in FGs informed, the structural themes are interwoven among them as a change in one of them affects the other. However, the topics in which clinicians gave more importance were the models of intervention and the engagement of clinicians in attending these two substances in their routine practice. Clinicians' proposals to understand this complex problem should be considered to move forward this topic from their day to day of their clinical practice to a higher health policy level. In addition, the structural themes) are interwoven among them as a change in one of them affects the other.

DISCUSSION

This qualitative research provides valuable insights from substant use treatment programs at a national/regional level can enhance tobacco cessation services for individuals with cannabis disorder who also use tobacco. The study explored five main topics: users, clinicians, intervention models, organizational structures, and health policies. Among these, the clinicians placed particular emphasis on intervention models and the active involvement of professionals in addressing tobacco use in their regular practice. Their proposals include promoting the integration of smoking cessation across all services, overcoming fragmentation in healthcare services, enhancing access to resources, and improving clinical records, as well as 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 both individuals' well-being and public health at large.

Users and Clinicians

Regarding users, as previously reported, most cannabis users who attend CAS in Spain, and other European countries also use tobacco [33]. However, the level of implementation of tobacco cessation services in substance use treatment programs remains low in Spain [23, 24]. This is a commonality with other substance use services in other Western countries. For instance, in the US, a national study reported that only one out of three substance use treatment centers include this service [34, 35]. The main barriers identified include limited time, difficulty in engaging smokers, and the perception that clients are not interested [36, 37]. Additionally, the willingness of professionals to introduce this service is a challenge, as smoking cessation is not part of the culture of addiction [38]. In our study, we also observe that many clinicians report that this service is not included in their centre's portfolio, and they believe it is not part of their clinical role. Other authors even state that clinicians frequently claim that users with drug use and mental health problems show resistance to quitting smoking when they are being treated for a drug use problem and then is approach could be counterproductive [39, 40].

A retrospective analysis of clinical records from a center in Catalonia sheds light on the deficiencies of public drug treatment programs in accurately categorizing the requirements of initial cannabis cessation treatments. Astonishingly, only 18% of new cannabis cessation cases are correctly identified at the outset. The majority (82%) falls under a 'black box category,' encompassing individuals who fall into various groups: those referred by law enforcement agencies due to alleged illegal cannabis use or possession, leading to mandatory attendance in a drug use program to avoid fines (16.3%); individuals dealing with psychological issues (such as anxiety, self-aggression, impulsivity, etc.) who are consumers but are not seeking to quit (11%); and individuals with appointments for cannabis use-related concerns who ultimately do not attend (29.9%) [41]. This misclassification underscores the fragmentation within the system, highlighting the urgent need for a meticulous needs assessment and a flexible recovery plan, distinct from the current model of intervention.

The effectiveness of tailoring interventions to the unique characteristics of individuals has been well-established in meeting clients' needs[42, 43]. According to a recent review, literature is still inconclusive about the degree to which co-use affects treatment success; but, despite, and due to the negative consequences of tobacco use among cannabis users, the review suggests the need to propose new treatment approaches that are focused on cessation from both substance and could meet the preference of co-users (McClure et al., 2020). This approach aligns with a recent national survey in the US, revealing that 55% of individuals who use both tobacco and cannabis express a keen interest in quitting (McClure et al., 2019). Consequently, it becomes imperative to implement organizational and healthy system changes to accommodate this trend.

A frequent for the implementation of smoking cessation services is the deficiency in training and expertise reported by clinicians regarding smoking cessation [22, 38]. Reports indicate that clinicians often feel uncertain about providing guidance on smoking cessation due to a lack of confidence in the type of support they should offer [39, 45]. Despite this, our group of more experienced clinicians believes that they are experts in the treatment of drug addiction, and they have been trained in motivational techniques. So, they considered most drug use clinicians to have the basic knowledge of support, contrary what it has found in a study conducted among certified stop-smoking certificates that pointed out their lack of knowledge to treat cannabis users who use tobacco[46]. A different matter is clinicians' importance on smoking cessation, how they prioritize this over other issues, and how supportive they are in supporting smokers to quit in their organizations [47]. Thus, there is a need to change narratives and modify the environment, as suggested by participants in these studies [48].

Model of intervention

In relation to the model of intervention, participants in this study reported that promoting tobacco cessation is not a widespread practice in drug use programs despite the majority of cannabis users consuming tobacco (in joints). They identify barriers previously identified including lack of training, lack of motivation of clinicians, not inclusion of the service in their institution portfolio, and lack of clear protocols especially to promote smoking cessation among cannabis users [38, 48]. They also highlighted that the absence of well-established assistance yields stigma and chronification among these persons. Currently, the professionals recognize two types of intervention models established informally in the SUPs smoking cessation led: 1) by primary care and 2) in a few substance use treatment programs, although this service is out of their portfolio.

In addition, they observe that there is not a clear profile of cannabis users right now and it is very heterogenous, polyusers who have quit other drugs but continue using cannabis and tobacco (an use to smoke a high number of cigarettes per day), as opposed to younger users whom cannabis became the gateway to tobacco use [49](and normally they trivialize their consumption. As their cannabis users are diverse and many of them poly-users, they propose a comprehensive and flexible treatment approach. This novel consideration has not been introduced in previous works, to our knowledge. Given that a substantial number of cannabis users are either poly-users or become long-term consumers, the progression of their condition naturally leads to both psychological and physical consequences. The necessity of devising novel treatment approaches that prioritize cessation of both substances is vital, owing to the adverse outcomes associated with tobacco use among cannabis users. [42].

Lead professionals posit that incorporating tobacco cessation services into the standard repertoire and integrating such interventions across all Substance Use Treatment Programs (SUPs) could affect a shift in the attitudes of hesitant clinicians and patients, facilitating more open discourse on the topic. Moreover, it is imperative to establish stronger linkages between substance use treatment, including tobacco cessation, and primary care, as well as other healthcare services.

This integration could serve to destigmatize tobacco use among these individuals and foster greater engagement among clinicians in advocating for cessation. Such initiatives could be seamlessly incorporated into motivational group interventions and other interventions aimed at fostering well-being and promoting health.

Organizational models

The group of experts interviewed expressed that the current organizational models do not facilitate the delivery of tobacco intervention. So, several of the recommendations pointed out by Rojewski and et.al are mentioned by our participants, mainly integrating tobacco cessation as an activity integrated into their portfolio and requests to clinicians the report of some activities such as the number of patients asked, advised, assessed, assisted and followed-up. Thus, the participating professionals offer a vision that goes beyond their practice and integrates the organization of public health services in the SUPs. They claim continuity of care for these people and that it should not be divided into services or levels of care. They highlight the vulnerability of these people who often lack sufficient resources to be able to plan the purchase of nicotine replacement treatment. Rojewski et al. offer a comprehensive set of recommendations that Health Systems could adopt to address barriers to tobacco treatment. These recommendations could be succinctly summarized as follows: inquire about the smoking status of all patients, provide smoking cessation support, introduce motivational approaches for patients not yet prepared to quit, incorporate smoking cessation services into electronic clinical records, promote the inclusion of smoking cessation in well-being programs facilitated by various clinical roles beyond physicians, establish referral systems for specialized services (as needed), encourage smoking cessation involvement among both clinical and non-clinical staff, and emphasize accountability and evaluation [50]. Also, a recent qualitative study conducted among stop-smoking practitioners in the UK, in which smoking cessation is provided in special clinics for general smokers, pointed out the lack of access to appropriate recording systems [51]. However, as highlighted by our participants in Spain[52], like numerous other nations [53], there exists a fragmented integration of smoking cessation measures 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 line, some evidence supports the introduction of tobacco cessation as an integrated part of the continuum of care of the substance use population. This strategic approach is indispensable in elevating the quality of treatment and enhancing engagement, as convincingly demonstrated in a Texas-based study. The study, conducted across 15 substance use treatment centers, introduced organizational modifications aimed at bolstering the adoption and efficacy of smoking cessation programs within substance use treatment contexts [54]. This comprehensive tobacco control initiative encompassed a spectrum of interventions, such as policy reforms, rigorous training, resource provisioning, and technical assistance. Additional studies reinforce the notion that augmenting clinicians' 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 [55, 56].

Health policies

Furthermore, our clinicians have advocated for a comprehensive review of health policies, urging a prioritization of smoking cessation services for the broader population that does not exclude those grappling with drug use issues. Within this context, they underscore the significance of implementing smoke-free regulations and fostering access to treatments.

Addressing smoke-free regulations within substance-use treatment facilities is of particular importance. The research underscores how tobacco-free environments actively encourage quit attempts and elevate the utilization of smoking cessation services[57, 58]. In terms of treatments, it is noteworthy that free-of-charge interventions have been correlated with heightened rates of smoking cessation endeavors [59]. It is important to highlight that Spain's Health System is designed to be universal, theoretically eliminating client service delivery inequalities. Moreover, since January 2020, certain tobacco treatments have been made available without cost [60].

Incorporating these policy revisions and provisions can foster a more supportive environment for smoking cessation endeavors among individuals facing substance use challenges. 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 that live in urban and rural areas. Participants were clinicians of these clinics who voluntarily participated int the study. But, as seen in Table 1, most clinics were working in urban areas. In addition, the sample included three groups, two of them were homogenous in terms of providing smoking cessation and one group of clinicians was composed of health professionals that did not provide smoking cessation and had not received training. This group was more difficult to recruit, due to the lack of enthusiasm for the topic, but although the group

was small, they provided important information about the barriers and solutions on the topic that were similar to those identified by the group of experts. It is worth mentioning that these sessions were conducted before ethe COVID-19 pandemic and due to changes in some day-to-day procedures it is probable that participants would have experienced even more barriers during the pandemic. Nevertheless, the activity of SUPs has been resumed at the time of writing this manuscript and the situation is very similar to back in 2019.

Although other authors have explored barriers and proposed solutions in mental health clinics [40] and in general in the health care system [46, 50], including in specialized smoking cessation services [51], our work is the first addressed to propose strategies to improve smoking cessation services among persons attended in SUPs for their use of cannabis.

Conclusion

The study emphasizes the importance of overcoming systemic fragmentation in tobacco interventions and addressing tobacco cessation when treating cannabis in Substance Use Treatment Programs (SUPs). Integrating tobacco cessation into SUP portfolios can benefit both users and professionals, reducing morbidity and mortality rates and social exclusion. The integration of innovative solutions and practices from experienced professionals is crucial, and their assessment and incorporation into standard healthcare protocols are essential if proven effective. Researchers, clinicians, and public health authorities must collaborate to explore motivation-driven care models and personalized therapeutic strategies. The 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 smoking cessation among cannabis users in substance use treatment programs.

Abbreviations

AC_ct: Thematical Categorical Content Analysis

CAS: outpatient public substance use clinics in Catalonia

COREQ: Consolidated criteria for reporting qualitative research

FG: Focus groups

SUPs: Substance Use Treatment Programs

Declarations

Ethical approval: 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 (users and clinicians) gave their informed consent to participate.

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

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Figures

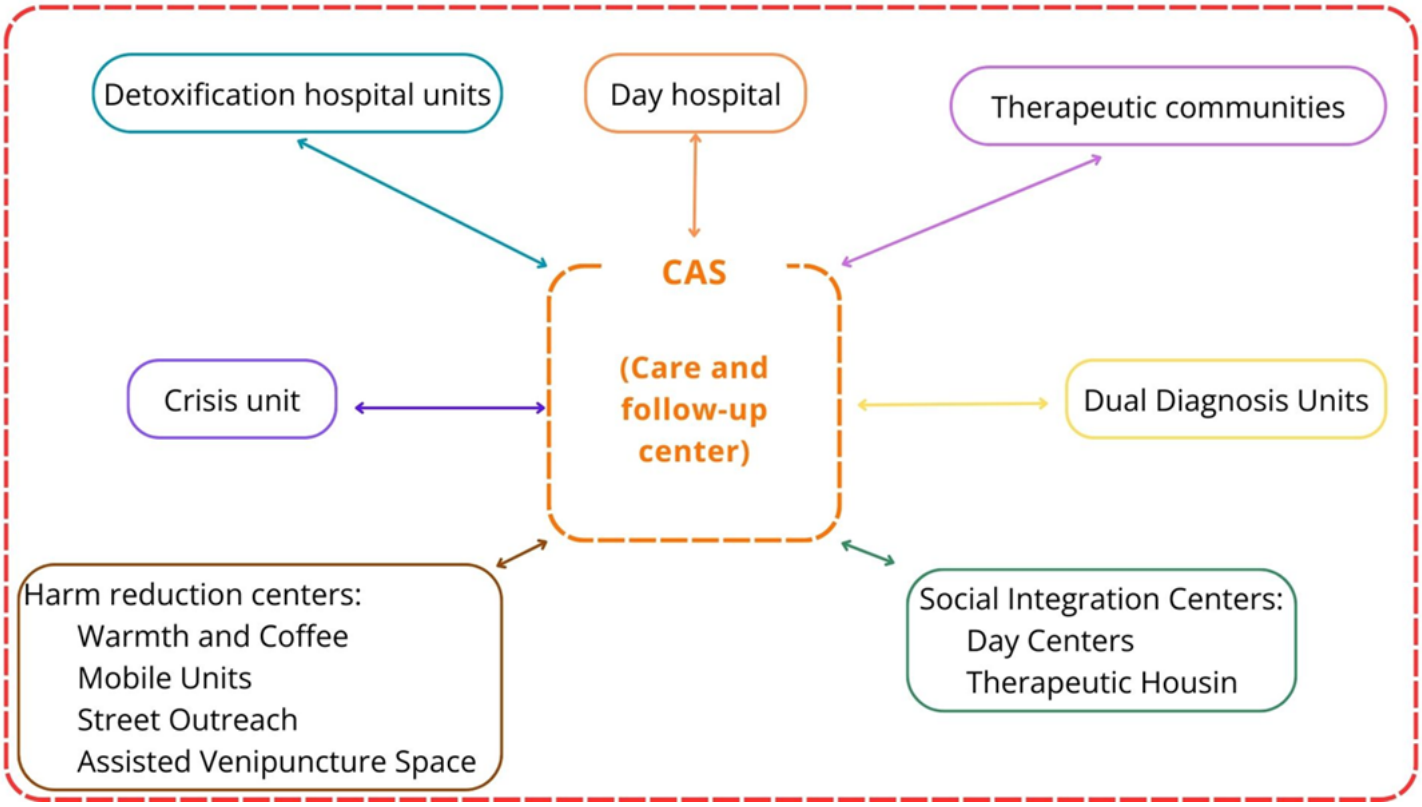

Figure 1

Catalan Drug Use Treatment Network System

Source: Adaptation of the original figure posted on the web of the Catalan Agency of Public Health (click: link)

Figure 2