

Parent Perspectives on Youth Cannabis Use and Mental Health: Impacts, Challenges, and Recommendations



T. Freeman Gerhardt, PhD 

Melissa Carlson, BS

Kimberly Menendez, MS

Kathleen A. Moore, PhD

Zena Rodill, BS

Abstract

Cannabis use among youth and young adults (YYA) is rising and poses serious mental health risks, especially with the availability of high-potency products. Parents are often the first to observe the potential impacts of cannabis use and are essential in recognizing early warning signs, facilitating treatment, and supporting recovery. However, limited research has examined the perspectives of parents whose children experience severe mental health challenges following cannabis use. To explore parent perspectives, the research team conducted semi-structured interviews with a purposive sample of 13 parents who reported their children used cannabis and experienced mental health issues. Interviews were transcribed and dual coded. A deductive-inductive thematic analysis was used to generate themes. Four themes were identified including (1) cannabis use and mental health, (2) impact on parents and families, (3) treatment experiences, and (4) system recommendations. Parents described how their children's cannabis use either worsened or appeared to trigger severe mental health crises, which increased emotional and financial burdens on their families. Many encountered health care providers who minimized cannabis-related risks, leading to inadequate support during treatment-seeking efforts. Parents also emphasized a lack of public health warnings and insufficient regulatory oversight, calling for better-informed clinicians and more robust public health messaging. These findings highlight an urgent need for family-supportive behavioral health interventions and regulatory reforms to address cannabis-related mental health issues among YYAs.

Address correspondence to T. Freeman Gerhardt, Department of Mental Health Law and Policy, University of South Florida, Tampa, FL, USA. gerhardt@usf.edu.

Melissa Carlson, Department of Mental Health Law and Policy, University of South Florida, Tampa, FL, USA. gerhardt@usf.edu.

Kathleen A. Moore, Department of Mental Health Law and Policy, University of South Florida, Tampa, FL, USA. gerhardt@usf.edu.

Zena Rodill, Department of Mental Health Law and Policy, University of South Florida, Tampa, FL, USA. gerhardt@usf.edu.

Kimberly Menendez, Department of Child and Family Studies, University of South Florida, Tampa, FL, USA.

The Journal of Behavioral Health Services & Research, 2025. 1–14 © 2025, National Council for Mental Wellbeing. DOI 10.1007/s11414-025-09932-8

Introduction

Cannabis is one of the most widely used substances in the United States (US) and has significantly increased in potency over the past several decades, raising concerns for youth and young adults (YYAs), who are vulnerable to its effects.¹⁻³ For example, higher-potency cannabis is associated with disrupted brain development and increased risk of mental health issues, including anxiety, depression, and psychosis.⁴⁻⁸ Despite these potential consequences, YYAs increasingly view cannabis as low-risk, likely influenced by evolving legalization policies, targeted social media campaigns, and cannabis products marketed specifically to young people, which can initiate or normalize frequent and high-potency cannabis use.⁹⁻¹⁵

In response, parents across the US have advocated for greater awareness of cannabis' potential harmful effects.^{16, 17} However, the specific experiences and insights of these families—particularly concerning YYA psychosis and experiences with treatment—are underexplored in the current literature.¹⁸ Research tends to focus on parent perceptions of cannabis use for medically vulnerable children, how parental substance misuse affects child well-being, or the effect of cannabis on parenting practices,¹⁹⁻²² rather than observations of early behavioral shifts and the broader social impacts of cannabis use on family dynamics. This major gap limits an understanding of the comprehensive effects of cannabis use on YYA mental health and how families detect and react to symptoms, intervene, and provide support. For instance, parents may be among the first to detect changes in behavior or school performance that precede severe outcomes like psychosis or suicide.²³ Moreover, parents are traditionally their child's primary caregivers, making them essential in recognizing early warning signs, initiating treatment, and supporting their child's recovery needs.²⁴

This study addresses these gaps by exploring parents' perspectives on how cannabis use affected their children and the challenges they faced in seeking treatment. Specifically, we aim to understand (1) how parents perceive the impact of cannabis use and co-occurring mental health issues on family dynamics and personal well-being, and (2) challenges parents encounter in navigating behavioral health treatment and their recommendations for improving services. This study was submitted for review and approved as exempt from human subject research by the University of South Florida Institutional Review Board (Study005997). The authors report this study according to the Standards for Reporting Qualitative Research (SRQR) guidelines.²⁵

Methods

Study design

The study was grounded in a phenomenological framework and employed semi-structured interviews to explore parental experiences. Phenomenological research aims to explore how individuals with lived experience interpret a phenomenon²⁶ and is an appropriate framework to understand the experiences of parents with children who have cannabis-related behavioral health issues. This approach enabled in-depth exploration of parents' beliefs and interpretations of their experiences, which is necessary to yield insights into an understudied phenomenon. See footnote¹ for details on the research team and reflexivity.

¹ The study was conceptualized by ZR, an undergraduate student, as part of a paid summer research institute. ZR conducted all interviews under KM's mentorship, a PhD-level professor. Coding was done by MC (a BS-level project administrator) and ZR, with TFG (a PhD-level visiting scholar) assisting in thematic analysis and codebook development. All authors have qualitative research experience. No prior relationships existed between researchers and participants, and participants were briefed on research goals.

Table 1
Participant characteristics

Participant	Parent relationship	Child relationship	State	Age of initial use	Age of onset
Parent 1	Mother	Son	Colorado	14	14
Parent 2	Adoptive father	Son	Florida	17	19
Parent 3	Father	Son	California	15	15
Parent 4	Mother	Son	Florida	22	23
Parent 5	Mother	Son	California	Not reported	23
Parent 6	Mother	Son	Florida	15	16
Parent 7	Mother	Son	Washington	17	20
Parent 8	Mother	Son	Colorado	14	18
Parent 9	Mother	Daughter	Florida	17	18
Dyad 1	Mother and father	Son	North Carolina	14	15
Dyad 2	Mother and father	Daughter	Minnesota	17	18

Age of initial use refers to when parents reported their child started cannabis use. Age of onset refers to when parents reported their child started exhibiting mental health symptoms

Participants and procedure

Eligible participants were parents who self-reported that their YYA children had mental health issues and used cannabis. YYAs were defined as young people between the ages of 12 and 24. Participants were purposively recruited from three parent-support organizations across the US between July 2023 to November 2023. These organizations included (1) *Every Brain Matters*, a nationwide resource for substance use prevention and recovery support for young adults and their parents; (2) *Success 4 Kids and Families Healthy Minds Program*, a local first-episode psychosis treatment program; and (3) *Insight Program*, an organization providing substance use treatment and peer recovery services to YYAs and parents.

A local community stakeholder familiar with the research team facilitated introductions to the directors of these organizations via email. The directors then provided the research team with a list of eligible participants, including 19 parents. ZR invited all parents via email with a description of the study and eligibility criteria. Overall, 13 parents—including two dyads (e.g., mother and father) who were interviewed concurrently—participated in the study (see Table 1). Participants were not compensated. The sample consisted of nine mothers and four fathers, residing in California ($n=2$), Colorado ($n=2$), Florida ($n=4$), Washington ($n=1$), North Carolina ($n=2$), and Minnesota ($n=2$) at the time of their experiences. All parents identified as White and non-Hispanic, excluding one parent who did not provide demographic information.

Data collection

Semi-structured interviews were used to gain insight into parents' perspectives and experiences. The interview protocol was co-developed by ZR and KM following informal conversations with members from a local substance use prevention coalition, individuals with lived experience, observations of drug court treatment hearings involving family members, and a review of the literature. The draft protocol was then sent to a key community stakeholder with lived experience to incorporate additional insights and perspectives. Lastly, the protocol was piloted with a doctoral student to refine question clarity and improve probing techniques. Interview topic areas related to parent perceptions of the relationship between cannabis use and mental health symptoms (e.g., "To the

extent you feel comfortable, would you mind sharing the mental health effects that your child experienced from cannabis and when they started occurring?”), treatment services (e.g., “Do you think treatment was adequate?”), community awareness (e.g., “Do you believe that information/education on the mental health risks of cannabis is adequately recognized in your city/state?”), and cannabis policies (e.g., “Do you support cannabis legalization?”).

Data were collected via phone interviews and audio recorded. Written informed consent to participate in the study was obtained during recruitment via email and reviewed prior to each audio recording. Interviews were conducted in a private setting to ensure confidentiality and averaged 45 min. ZR took notes during each interview to assist with probing emergent phenomena and to capture key points in real time. All recordings and notes were uploaded to a HIPAA-compliant data storage platform. ZR transcribed the first interview to enhance familiarity with the data, improve reflexivity, and evaluate the quality of the interview protocol. The remaining interviews were transcribed via an automated transcription service (Rev.com)²⁷ to enhance real-time data analysis concurrent with data collection. Data saturation was reached when no new information emerged and data became repetitive.²⁸ Saturation was evaluated through debriefing meetings with the research team, where interview transcripts and field notes were reviewed. Given the emphasis on in-depth qualitative analysis, the smaller sample size ($N=13$) was appropriate as it allowed more focused and rigorous analysis through the data collection process.²⁹

Data analysis

Atlas.ti Web (version 5.8.0) was used to analyze the data.³⁰ The research team reviewed transcripts using a combination of inductive and deductive analysis procedures.³¹ During data collection, ZR, MC, and KM held regular meetings to discuss and refine emergent codes. After data collection, the team collaboratively reviewed the same transcript to inductively generate an initial set of in vivo codes. The team then engaged in multiple rounds of iterative re-coding to refine and reorganize codes into a coherent and meaningful codebook. Deductive procedures involved comparing field notes, research team meeting notes, and transcripts with the pre-determined topic areas from the interview protocol. This ensured that the codes were grounded in both the data and the study’s objectives. Inter-coder agreement (ICA) was calculated to ensure reliable coding. To calculate ICA, ZR and MC reviewed two transcripts and divided the number of coding agreements by total number of coded segments. The ICA was determined to be 82%, meeting the standard reliability threshold.³² ZR and MC coded remaining transcripts, with TFG assisting as a tiebreaker in cases of disagreement or ambiguity.

Thematic analysis was employed following the coding process to interpret broader patterns of meaning within the data.³³ The research team grouped codes into clusters and then into higher-level themes. These themes were organized around the central research aims. The research team generated thematic maps to conceptualize the relationships between the codes and establish a deeper understanding of the interconnection between participant experiences. This enabled the research team to explore and describe the lived experiences of the participants and condense transcripts into simpler units of data while retaining essential information. Table 2 provides the themes, codes, and definition of each theme.

Results

Four key themes emerged from the data analysis, reflecting the progression of parents’ experiences with their YYA’s cannabis use: (1) cannabis use and mental health, (2) impact on parents and families, (3) treatment experiences, and (4) system recommendations. Quotes were edited for clarity while maintaining their inherent meaning.

Table 2
Codebook

Theme	Codes	Definition
<i>Cannabis Use and Mental Health</i>	YYA pre-cannabis use	The relationship between cannabis use and mental health, encompassing the onset and/or progression of mental health symptoms such as depression, anxiety, and psychosis
	YYA post-cannabis use	
<i>Impact on Parents and Families</i>	Negative parent impact	Parents' emotional, financial, and relationship effects from their child's cannabis use, including negative and positive impacts
	Positive parent impact	
<i>Treatment Experiences</i>	Treatment types	References to the types of treatment YYA received, including both positive and negative experiences with treatment process and providers
	Negative experiences	
	Positive experiences	
<i>System Recommendations</i>	Policy recommendations	Specific suggestions for changes in treatment, local/state/federal regulation, community support/awareness, and education
	Community recommendations	
	Treatment recommendations	

YYA, youth and young adult

Cannabis use and mental health

Participants described a complex relationship between cannabis use and mental health. Some parents asserted that cannabis use precipitated the onset of mental health issues, while others believed it exacerbated pre-existing conditions. For example, some parents emphasized that before using cannabis, their children maintained good academic performance and social relationships, and engaged in previously enjoyed activities. One mother and father described their daughter before cannabis use as a “promising college student who thrived academically” (Dyad 2). In contrast, other parents acknowledged that their children had struggled with behavioral health issues, such as depression or anxiety, prior to cannabis use. As one mother and father shared, “we’ve come to the conclusion that her brain had gone from being a 4.0 student to being basically destroyed. All from cannabis-induced psychosis, smoking high-potency marijuana, smoking dabs, and smoking regularly” (Dyad 2). Similarly, two mothers shared,

From the very first time he started using it, he was having delusions. I could tell something’s not right with my son. ‘What are you doing?’ He’s like, ‘I’m smoking this [cannabis strain] to help me.’ But he immediately started talking in third person, like within the week, talking in different voices, which were demons by the way. (Parent 4)

People will say oftentimes that he has schizophrenia, he is bipolar, or he’s got a medical issue. And I will say, ‘But when he stops using marijuana, the symptoms start going away.’ So that is how I believe my son’s problem is solely a cannabis problem. (Parent 7)

Some parents recounted their experience of their children attempting suicide because of cannabis use and its negative effect on their mental health. One mother described,

After my son started using marijuana, his behavior changed drastically. He was having large mood swings, very high anxiety, and very low depression. One particular night he was saying irrational stuff...and he was very paranoid, like inconsolable. He couldn’t stop crying and then he was self-harming and had a full-fledged suicide attempt where he took 50 or 60 pills of ibuprofen. (Parent 1)

Another mother shared that, despite her daughter overcoming an eating disorder and ceasing self-harming behaviors (i.e., cutting), the introduction of medical-grade cannabis seemed to coincide with a relapse of this self-harming behavior (Parent 9). Furthermore, within months of beginning cannabis use, her daughter began experiencing suicidal ideation which had not manifested during her struggle with an eating disorder or the previous self-harming behavior. Across these shared experiences, parents expressed a strong belief that cannabis use, regardless of whether their children had prior behavioral health issues, served as a catalyst in exacerbating or even triggering severe mental health crises.

Impact on parents and families

Parents described the emotional, financial, and relational toll their children’s cannabis use had on their own lives and families. Many shared feelings of guilt, embarrassment, and helplessness as they struggled to manage the consequences of their children’s cannabis use. One mother and father described the deep sense of failure they experienced and how socially difficult it was to face others, saying,

As they grow up, you tell them about the dangers of drugs and alcohol. So, to know that, now this is their life, you feel like a failure, and it is embarrassing when you are talking to your friends and they’re telling you about their kids and how great their kids are doing, and then they want to know what your kid’s doing. And your answer is, ‘he got suspended again, he breaks everything he sees, and he’s getting high.’ So, a lot of embarrassment and just feeling like a failure. (Dyad 1)

For several parents, the perceived norm that cannabis use is relatively harmless amplified their sense of shock and the overall emotional toll as they faced unexpected and more severe consequences of higher-potency use. For example, one mother said, “I was just horrified with what was happening. I just didn’t know marijuana could do this” (Parent 1). Another mother shared, “I wish people could understand how, what this drug can do to, to their mind and, you know, the consequences for all these young people and their families. It just, it shatters you” (Parent 5).

Parents also reported significant financial and emotional costs to help their children access substance use treatment and psychiatric care. One mother explained the extent of their financial and emotional exhaustion, saying,

It is just a feeling of helplessness and stress. For five years, we tried to help him. We spent over \$200,000 on treatments, programs, mental hospitals, and psychiatrists—everybody just trying to figure out what to do. And you just feel desperate as a parent because you see your kid slipping away and being impacted by this poison. (Parent 8)

Family dynamics also shifted under the weight of these emotional and financial challenges. For example, one mother described how her son had to move in with his grandparents due to family disruption stating, “he lives with his grandparents, and they’re older. I have six other kids. So, it’s hard for all of us. I’m telling you. This is the hardest thing I’ve ever been through” (Parent 4). Another mother noted the intensifying stress and disruption on siblings and extended family, saying, “I’m traumatized, my younger son is traumatized, the whole family is traumatized by the behavior, so this drug is making a huge impact not just on the user but the family and the communities too” (Parent 1).

Ultimately, all parents expressed the negative impacts, though some parents were able to find meaning in their hardship. For example, one mother reflected on how it brought the family together through the difficult emotional and financial turmoil, sharing,

My husband and I decided we would not bring our son back to Colorado. I found a dynamic recovery community in Houston, TX. It was with an intensive parent-driven recovery program that had an intensive out-patient program... He [son] pretty much spent his whole teenage years in treatment and achieved three years of sobriety... I became a host mom for youth in recovery. We hosted kids. My son and I did that for a little bit together. (Parent 1)

Treatment experiences

Parents reported that the severity of their child’s mental health crises and cannabis use necessitated immediate treatment or hospitalization. However, many encountered significant challenges in navigating the behavioral health care system to obtain appropriate care, with treatment being denied specifically because it was cannabis related. Furthermore, parents’ experiences with treatment and health insurance coverage varied depending on the state they lived in. One mother and one parent dyad recounted,

I actually had a rehab place tell me, ‘Well, if he was in psychosis from meth, cocaine, or alcohol we could help him, but psychosis from cannabis, we can’t.’...I call places every day. My goal is to call at least two places a day. Because of my insurance, I have to stay in Florida. And at first it was like, ‘Yes, we can help you.’ But as soon as I mention cannabis, they can no longer help me. We don’t know what to do. They’ll talk to me, but they cannot help me. (Parent 4)

I had asked his counselor if there's any place we could send him that would help with just THC use and abuse. And we were told, 'No, there's no rehab or facility that will treat just THC abuse,' which I think was just awful. We felt like he had to move on to harder drugs before he could get into a facility to treat himself. (Dyad 1)

Some parents reported feeling dismissed or not taken seriously by health care professionals when they raised concerns about their children's cannabis use. Specifically, several parents encountered a pro-cannabis bias from medical professionals, which seemed to undermine their attempts to seek what they perceived as appropriate care. One mother shared,

It's hard to understand. Our son was seeing our medical doctor who we've had for 20 years, who was a pro-marijuana doc. When I brought it up to the doctor and said, 'He's smoking a lot of weed.' Our doctor said, 'That's fine. It'll help keep him calm.' So, we didn't really realize that it was a marijuana issue or high THC for probably two years. (Parent 7)

Another mother described her frustration with her local behavioral health care system that normalized cannabis use, which conflicted with her own observations of its damaging effects on her son, saying,

So many doctors over the years, therapists, psychiatrists told us that marijuana is not addictive. We had a psychiatrist tell us that he should use a different strain. I mean, instead of telling him to stop, they said, 'The one you're using is too alerting. Maybe don't use one with sativa, maybe get one with indica.' I mean, it was horrible. We couldn't get any help. We couldn't find any doctors who understood what the marijuana was doing. (Parent 8)

System recommendations

Parents emphasized the need for systemic changes to better prevent and treat cannabis use and cannabis-related mental health problems in young people. A major concern was the lack of awareness and education among medical doctors and behavioral health care professionals about the various forms of cannabis, including higher-potency products. One mother and father noted,

We've been told there's no place for just THC abuse. That's where the majority of kids start their drug journey—with THC. And I'm being told that no place will just treat THC abuse. So, it's like, what do you do? (Dyad 1)

One adoptive father expressed concerns about the lack of education among lower-paid professionals regarding cannabis use and its mental health effects, saying,

The reality is the county programs, oftentimes you have younger social workers and less experienced mental health counselors. So, they're just not as experienced as, say someone that you're willing to pay 175 bucks an hour to see. (Parent 2)

To improve prevention and early intervention efforts, parents suggested providers should receive comprehensive, ongoing education and training in effective treatment, as cannabis' effects, chemical compound, and legal status are continually evolving. For example, one mother and father shared,

We would be happy to talk to doctors about this [phenomenon of cannabis] and then get doctors that are familiar with it and have them have to talk with parents and doctors that aren't familiar with it. And really, education is the biggest thing. I think that could help everyone. And that'll in turn help on the preventative side. It should help on the treatment side. (Dyad 1)

Parents expressed familiarity with cannabis would not only enable professionals to recognize the risks associated with its use earlier, but also to engage in meaningful conversations with families about available treatment and the potential dangers before substance use escalates. One mother and father shared,

I think there needs to be more early intervention for kids who are struggling and just starting down the drug path. But I just think treatment options for kids who are just starting down the path needs to be more available to people. (Dyad 2)

One of the most significant policy challenges parents highlighted was the lack of federal oversight and regulation surrounding cannabis, notably in contrast to other drugs such as tobacco or alcohol. Parents expressed that cannabis has been largely overlooked by public health campaigns even as its use becomes legal in many states. The absence of federal regulation leaves states to have their own policies, often without adequate information or attention to the mental health risks associated with cannabis use among young people. One mother said,

We can have all these PSAs about cigarettes, but the FDA's not going to bother regulating marijuana. The federal government's just gonna turn their eyes away from all of these states legalizing it. And, you know, in 60 years when someone finally says, 'Oh, you know, cannabis causes psychosis in youth, mental health problems, depression, bipolar, and anxiety,' we are already going to have lost generations of our children. (Parent 8)

Parents also voiced frustration over bureaucratic hurdles in pushing for stronger safety regulations on cannabis products that aligns with public health instead of the cannabis industry. One mother described,

I was involved as a parent with legislators and the physicians that brought [Senate Bill name removed] in 2022. It mandated to have warning labels on all marijuana products. The first warning was psychosis or psychiatric disorders that happen from this drug... Well, it passed but [redacted governor name] was supposed to sign it. Instead of signing it... I'll say this very honestly, [redacted governor name] is the number one cheerleader for the cannabis industry and sent it back to another committee where it was watered down. (Parent 5)

While substance use and mental health problems continue to rise among YYAs, parents noted the infrastructure of the behavioral health care system to address the negative effects of both remains inadequate. A mother and father shared,

I don't know if it's services or support or recognition for the fact that we have an entire generation of kids who don't have the coping mechanisms to deal with life in general. And whether it's building awareness or providing services, it's an enormous gap at this point. I think it's something that absolutely has to be addressed. Look at the rate of teen suicide and drug abuse. It's gone significantly up in just the last 15–20 years. It's a systemic problem, and it's something that the psychological and medical community has nothing positive to say about it. (Dyad 1)

Additionally, one mother noted that while they are doing what they can to bring awareness locally, more widespread campaigns are needed, saying,

I'm doing all I can, speaking at assemblies, parent nights, and community nights. But obviously, there's only one of me. There needs to be a massive public service campaign that goes out educating parents and showing it on TVs, just like we used to do with crashes [DUIs], with tobacco. (Parent 8)

Overall, parents recommended that policymakers should prioritize mental health support and intervention services for YYAs, with a focus on substance use prevention and education. For example, they expressed a desire for public health initiatives to incorporate co-occurring cannabis use and mental health issues collectively rather than individually. Additionally, some parents believed that federal agencies should take an active role in regulating cannabis use, with a focus on nationwide public health campaigns like those used for tobacco and alcohol (e.g., adding warning labels to cannabis products, and include warning labels on cannabis-related products). Parents also felt that early recognition and intervention are key to preventing a future mental health crisis linked to cannabis use and that policymakers could benefit by resisting the growing influence of the cannabis industry and place an emphasis on the well-being of youth and families.

Discussion

This study aimed to understand parents' perceptions of cannabis use and related mental health issues in their YYA children and explore the broader impacts on family dynamics, challenges in navigating behavioral health treatment, and recommendations for systemic improvements. Four inter-related themes emerged from the data: (1) cannabis use and its associated impacts on their children's mental health, (2) the impact on parents and families, (3) treatment experiences, and (4) system recommendations. These themes collectively highlight the complex challenges associated with cannabis use and mental health, particularly how parents perceive and respond to these challenges.

Parents observed that cannabis use triggered or worsened severe mental health symptoms in their children, with significant declines noted following the initiation of use. This deterioration exacerbated both emotional and financial strain on families as they struggled to secure appropriate treatment options. Many expressed frustrations with the behavioral health care system and felt that it often failed to provide adequate responses to cannabis-related mental health symptoms. They recounted instances where professionals minimized the impact of cannabis, particularly in regions where it is socially accepted or legalized. A notable gap in early intervention options left families without meaningful support unless providers perceived the psychosis was unrelated to cannabis or other substances were involved (e.g., opioids, alcohol). Considering these challenges, parents highlighted the need for greater awareness and education among health care providers, legislators, and the broader public. Parents advocated for policies that clarify the risks associated with cannabis, particularly for youth and young adults, and suggested implementing warning labels and enhancing provider education on the potential mental health effects of cannabis.

These findings are especially relevant given the increasing accessibility and normalization of cannabis use among YYAs influenced by expanding legalization across the US.^{13,34} For example, as higher-potency cannabis products become more prevalent, concerns about their short- and long-term health consequences have grown, even as cannabis use treatment admissions have declined.³⁵ This decline may stem from stigma within parental social networks, which can amplify caregiver burden.³⁶ Furthermore, the wide variability in state regulations—ranging from strict controls to lenient approaches³⁷—can complicate parental efforts to navigate the behavioral health care system. Notably, states with legalized cannabis have reported increases in cannabis use and associated mental health issues among youth, highlighting the urgent need for targeted interventions.³⁸

Limitations

This study has several limitations to consider when interpreting the findings. First, the small and homogeneous sample, comprising only White, non-Hispanic participants, limits the generalizability of the results. Additionally, the gender representation was unbalanced, with only two female and

nine male YYAs, which may constrain the scope of the findings.³⁹ Future research should investigate potential gender differences in parental perspectives, as these may vary based on the gender of their children.^{40,41} Second, given that cannabis use often co-occurs with other substances, it can be challenging to establish direct causality between cannabis and specific mental health symptoms based solely on self-reported data. Third, the interview protocol was only piloted with one person who was not a study participant. Additional pilot interviews may have enhanced the semi-structure interview protocol and provided insight for potential probes. Lastly, results may be biased by a sample of parents who actively participate in advocacy groups. These parents may have a more heightened awareness of cannabis-related issues, which could influence their responses and perceptions compared to parents who are less engaged. Though, parent involvement in advocacy groups may also be considered a strength of the study due to their knowledge-rich experiences. However, despite these limitations, the in-depth interviews yielded nuanced insights into parental perspectives and highlighted the need for future research to include more diverse and representative samples.

Implications for Behavioral Health

Parents in this study voiced a strong desire for greater awareness and education from health care systems and policymakers, particularly regarding high-potency cannabis and its mental health impacts on youth. These findings underscore the need for research, policy, and practice initiatives that actively involve parents in prevention, treatment, and recovery efforts.

Research

Research should incorporate community-based participatory research approaches to engage parents and gain deeper insights into their experiences with symptom recognition, treatment accessibility, and perceptions of cannabis policies. Specifically, engaging parents as co-researchers integrates their lived experiences into the study design and ensures the research addresses real-world challenges. This approach may promote culturally sensitive, equitable, and effective interventions by identifying gaps in services and policy implementation that parents find most impactful. Additionally, researchers may conduct case studies to highlight success stories where parental involvement has led to improved outcomes in YYAs and provide practical examples to inform clinical and community-based best practices and interventions. Such studies should compare child and parent perspectives to understand potential discrepancies in perspectives and experiences. To further operationalize these insights, researchers and parents could co-develop a large-scale survey to quantify key themes related to parental influence and family dynamics. This would offer a more comprehensive understanding of the factors that shape outcomes in cannabis-induced psychosis among young people to inform best practices in treatment and prevention strategies.

Policy and practice

In practice, parents are a vital component of a comprehensive cannabis use treatment continuum. Family-focused initiatives like the *Strengthening Families Program*, which strengthen parent-child bonds, set clear expectations, and promote substance-free norms, effectively reduce youth cannabis use and empower families to identify and respond to early warning signs.^{42,43} School-based programs such as *Unplugged*, which combine social skills, personal development, knowledge dissemination, and normative education alongside parent seminars,⁴⁴ offer a valuable opportunity to engage both students and parents in substance use prevention efforts. Parent-involved programs also have lower attrition rates compared to standalone initiatives, making them an effective and sustainable approach

to fostering family involvement and reinforcing substance-free norms.⁴⁵ Therefore, practitioners should prioritize parent-friendly services such as flexible scheduling and virtual options, collaborate with schools to implement student-parent workshops, and partner with support groups to create peer support networks and inter-parent connections. Moreover, policymakers should actively engage parents through advisory boards, public forums, and collaborative stakeholder committees. By incorporating parental insights, policymakers can design evidence-based regulations addressing youth access, potency limits, and health warnings. Additionally, they can allocate resources to prevention and education programs with input from parents.

Acknowledgements The authors would like to acknowledge the Hillsborough County Anti-Drug Alliance who facilitated participant recruitment, with special thanks to parent board member Ellen Snelling for her support in protocol development. We also acknowledge Dr. Oliver Tom Massey for his mentorship during the Summer Research Institute at the Florida Mental Health Institute.

Author Contribution TFG contributed to original writing (introduction, methods, results, and discussion), methodology, data interpretation, and writing—reviewing. MC contributed to original writing (results and discussion), data analysis, data interpretation, and writing—reviewing. KM contributed to original writing (results), data interpretation, and writing—reviewing. KAM contributed to study conceptualization and writing—reviewing. ZR contributed to study conceptualization and data collection.

Data Availability The participants of this study did not give written consent for their data to be shared publicly, so due to the sensitive nature of the research supporting data is not available.

Declarations

Ethics Approval This study was submitted for review and approved as exempt from human subject research by the University of South Florida Institutional Review Board (Study005997). All participants provided written informed consent before their inclusion in the study. Participation was voluntary, and participants were informed of their right to withdraw from the study at any time without consequence.

Conflict of Interest The authors declare no competing interests.

Reporting Guidelines The authors report this study according to the Standards for Reporting Qualitative Research (SRQR).

Clinical Trial Number Not applicable.

References

1. ElSohly MA, Chandra S, Radwan M, et al. A comprehensive review of cannabis potency in the United States in the last decade. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 2021; 6(6), 603–606. Available at <https://doi.org/10.1016/j.bpsc.2020.12.016> Accessed 5 November 2024
2. George P, Wahl M. Cannabis toxicity in children and adolescents. *Pediatric Annals*; 2023; 52(5), e181-e186. Available at <https://doi.org/10.3928/19382359-20230307-04> Accessed 5 November 2024
3. *Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health*. Rockville, Maryland: Substance Abuse and Mental Health Administration. Available at <https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFRPDFWHTMLFiles2020/2020NSDUHFR1PDFW102121.pdf> Accessed 28 April 2023

4. Ross JA, Levy S. The impact of cannabis use on adolescent neurodevelopment and clinical outcomes amidst changing state policies. *Clinical Therapeutics*; 2023; 45(6), 535–540. Available at <https://doi.org/10.1016/j.clinthera.2023.03.009> Accessed 5 November 2024
5. Godin SL, Shehata S. Adolescent cannabis use and later development of schizophrenia: An updated systematic review of longitudinal studies. *Journal of Clinical Psychology*; 2022; 78(7), 1331–1340. Available at <https://doi.org/10.1002/jclp.23312> Accessed 5 November 2024
6. Hall W, Leung J, Lynskey M. The effects of cannabis use on the development of adolescents and young adults. *Annual Review of Developmental Psychology*; 2020; 2(1), 461–483. Available at <https://doi.org/10.1146/annurev-devpsych-040320-084904> Accessed 5 November 2024
7. Hines, LA, Freeman TP, Gage SH, et al. Association of high-potency cannabis use with mental health and substance use in adolescence. *JAMA Psychiatry*; 2020; 77(10), 1044–1051. Available at <https://doi.org/10.1001/jamapsychiatry.2020.1035> Accessed 5 November 2024
8. Wright NE, Maple KE, Lisdahl KM. *Effects of cannabis use on neurocognition in adolescents and emerging adults*. In Handbook of Cannabis and Related Pathologies (pp. 151–159). Cambridge, Massachusetts: Academic Press, 2017. Accessed 5 November 2024
9. Mennis J, McKeon TP, Stahler GJ. Recreational cannabis legalization alters associations among cannabis use, perception of risk, and cannabis use disorder treatment for adolescents and young adults. *Addictive Behaviors*; 2023; 138, 107552. Available at <https://doi.org/10.1016/j.addbeh.2022.107552> Accessed 5 November 2024
10. Blevins CE, Marsh E, Banes KE, et al. The implications of cannabis policy changes in Washington on adolescent perception of risk, norms, attitudes, and substance use. *Substance Abuse: Research and Treatment*; 2018; 12, 1178221818815491. Available at <https://doi.org/10.1177/1178221818815491> Accessed 5 November 2024
11. Cerdá M, Mauro C, Hamilton A, et al. Association between recreational marijuana legalization in the United States and changes in marijuana use and cannabis use disorder from 2008 to 2016. *JAMA Psychiatry*; 2020; 77(2), 165–171. Available at <https://doi.org/10.1001/jamapsychiatry.2019.3254> Accessed 5 November 2024
12. Hasin DS, Sarvet AL, Cerdá M, et al. US adult illicit cannabis use, cannabis use disorder, and medical marijuana laws: 1991–1992 to 2012–2013. *JAMA Psychiatry*; 2017; 74(6), 579–588. Available at <https://doi.org/10.1001/jamapsychiatry.2017.0724> Accessed 5 November 2024
13. O’Grady MA, Iverson MG, Suleiman AO, et al. Is legalization of recreational cannabis associated with levels of use and cannabis use disorder among youth in the United States? A rapid systematic review. *European Child & Adolescent Psychiatry*; 2024; 33(3), 701–723. Available at <https://doi.org/10.1007/s00787-022-01994-9> Accessed 5 November 2024
14. Wen H, Hockenberry JM, Cummings, JR. The effect of medical marijuana laws on adolescent and adult use of marijuana, alcohol, and other substances. *Journal of Health Economics*; 2015; 42, 64–80. Available at <https://doi.org/10.1016/j.jhealeco.2015.03.007> Accessed 5 November 2024
15. Lee J, Krishnan-Sarin S, Kong, G. Social media use and cannabis vaping initiation among US youth. *Drug and Alcohol Dependence*; 2023; 249, 109949. Available at <https://doi.org/10.1016/j.drugalcdep.2023.109949> Accessed 5 November 2024
16. Colonna, R. Mass media campaigns and media advocacy related to cannabis-impaired driving: a scoping review. *Journal of Substance Use*; 2024; 29(1), 21–29. Available at <https://doi.org/10.1080/14659891.2022.2120436> Accessed 5 November 2024
17. Partnership to End Addiction: Advocacy Toolkit. New York City, New York: Partnership to End Addiction. Available at https://cdn-01.drugfree.org/web/prod/wp-content/uploads/2020/08/19201738/advocacy_toolkit.pdf?_gl=1*b6cu1g*_gcl_au*MTEyNTY0MDY2OC4xNzMwODMyNzg3*_ga*MTcwNTM0MTAuMTczMDgzMjc4OA.*_ga_ECZGQGWGSZ*MTczMDgzMjc4OC4xLjEuMTczMDgzMjc4Ny40MS4wLjA Accessed 5 November 2024
18. Baral A, Hanna F, Chimoriya R, et al. Cannabis use and its impact on mental health in youth in Australia and the United States: A scoping review. *Epidemiologia*. 2024; 5(1):106–121. Available at <https://doi.org/10.3390/epidemiologia5010007> Accessed 5 November 2024
19. Wisk LE, Levy S, Weitzman ER. Parental views on state cannabis laws and marijuana use for their medically vulnerable children. *Drug and Alcohol Dependence*; 2019; 199, 59–67. Available at <https://doi.org/10.1016/j.drugalcdep.2018.12.027> Accessed 5 November 2024
20. Kuppens S, Moore SC, Gross V. The enduring effects of parental alcohol, tobacco, and drug use on child well-being: A multilevel meta-analysis. *Development and Psychopathology*; 2020; 32(2), 765–778. Available at <https://doi.org/10.1017/S0954579419000749> Accessed 5 November 2024
21. Vermeulen-Smit E, Verdurmen JEE, Engels RCME, et al. (2015). The role of general parenting and cannabis-specific parenting practices in adolescent cannabis and other illicit drug use. *Drug and Alcohol Dependence*; 2015; 147, 222–228. Available at <https://doi.org/10.1016/j.drugalcdep.2014.11.014> Accessed 5 November 2024
22. Wilson S, Rhee SH. Causal effects of cannabis legalization on parents, parenting, and children: A systematic review. *Preventive Medicine*; 2022; 156, 106956. Available at <https://doi.org/10.1016/j.ypmed.2022.106956> Accessed 5 November 2024
23. Chen FP, Gearing RE, DeVlyder JE, et al. Pathway model of parental help seeking for adolescents experiencing first-episode psychosis. *Early Intervention in Psychiatry*; 2016; 10(2), 122–128. Available at <https://doi.org/10.1111/eip.12159> Accessed 5 November 2024
24. Oluwoye O, Cheng SC, Fraser E, et al. Family experiences prior to the initiation of care for first-episode psychosis: a meta-synthesis of qualitative studies. *Journal of Child and Family Studies*; 2020 29, 2530–2541. Available at <https://doi.org/10.1007/s10826-019-01695-z> Accessed 5 November 2024
25. O’Brien BC, Harris IB, Beckman TJ, et al. Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine*; 2014; 89(9), 1245–1251. Available at <https://doi.org/10.1097/ACM.0000000000000388> Accessed 5 November 2024
26. Moustakas CE. *Phenomenological Research Methods*. Washington DC: Sage Publications, Inc., 1994. Accessed 5 November 2024
27. Rev Transcription Services. Available at <https://www.rev.com/> Accessed 5 November 2024
28. Braun V, Clarke V. To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*; 2021; 13(2), 201–216. Available at <https://doi.org/10.1080/2159676X.2019.1704846> Accessed 5 November 2024
29. Guest G, Bunce A, Johnson, L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*; 2006; 18(1), 59–82. Available at <https://doi.org/10.1177/1525822X05279903> Accessed 5 November 2024

30. ATLAS.ti Scientific Software Development GmbH, 2023. ATLAS.ti Mac (version 23.2.1) [Qualitative data analysis software]. <https://atlasti.com> Accessed 5 November 2024
31. Azungah T. Qualitative research: deductive and inductive approaches to data analysis. *Qualitative Research Journal*; 2018; 18(4), 383–400. Available at <https://doi.org/10.1108/QRJ-D-18-00035> Accessed 5 November 2024
32. Miles MB. *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks: Sage Publications, 1994. Accessed 5 November 2024
33. Braun V, Clarke V. Thematic Analysis. American Psychological Association, 2012. Accessed 5 November 2024
34. Melchior M, Nakamura A, Bolze C, et al. Does liberalisation of cannabis policy influence levels of use in adolescents and young adults? A systematic review and meta-analysis. *British Medical Journal*; 2019; Open 9(7):e025880. Available at <https://doi.org/10.1136/bmjop-en-2018-025880> Accessed 5 November 2024
35. Mennis J, Stahler GJ, McKeon TP. Young adult cannabis use disorder treatment admissions declined as past month cannabis use increased in the US: an analysis of states by year, 2008–2017. *Addictive Behaviors*; 2021; 123, 107049. Available at <https://doi.org/10.1016/j.addbeh.2021.107049> Accessed 5 November 2024
36. Kaynak Ö, Whipple CR, Burma R, et al. “Everyone blames you”: Stigma and caregiver burden among parents of children with substance use disorder. *Journal of Family Psychology*; 2024. Available at <https://doi.org/10.1037/fam0001266> Accessed 5 November 2024
37. Smart R, Pacula RL. Early evidence of the impact of cannabis legalization on cannabis use, cannabis use disorder, and the use of other substances: Findings from state policy evaluations. *The American Journal of Drug and Alcohol Abuse*; 2019; 45(6), 644–663. Available at <https://doi.org/10.1080/00952990.2019.1669626> Accessed 5 November 2024
38. Popova L, McDonald EA, Sidhu S, et al. Perceived harms and benefits of tobacco, marijuana, and electronic vaporizers among young adults in Colorado: Implications for health education and research. *Addiction*; 2017; 112(10), 1821–1829. Available at <https://doi.org/10.1111/add.13854> Accessed 5 November 2024
39. Hjorthøj C, Compton W, Starzer M, et al. Association between cannabis use disorder and schizophrenia stronger in young males than in females. *Psychological Medicine*; 2023; 53(15):7322–7328. Available at <https://doi.org/10.1017/S0033291723000880> Accessed 5 November 2024
40. Prieto-Arenas L, Díaz I, Arenas MC. Gender differences in dual diagnoses associated with cannabis use: A review. *Brain Sciences*; 2022; 12(3), 388. Available at <https://doi.org/10.3390/brainsci12030388> Accessed 5 November 2024
41. Tu AW, Ratner PA, Johnson JL. Gender differences in the correlates of adolescents’ cannabis use. *Substance Use & Misuse*; 2008; 43(10), 1438–1463. Available at <https://doi.org/10.1080/10826080802238140> Accessed 5 November 2024
42. Riesch SK, Brown RL, Anderson LS, et al. Strengthening Families Program (10–14): Effects on the family environment. *Western Journal of Nursing Research*, 2012; 34(3), 340–376. Available at <https://doi.org/10.1177/0193945911399108>. Accessed 31 December, 2024.
43. Garcia-Huidobro D, Doty JL, Davis L, et al. For whom do parenting interventions to prevent adolescent substance use work? *Prevention Science*, 2018; 19(4), 570–578. Available at <https://doi.org/10.1007/s11121-017-0853-6> Accessed 31 December, 2024.
44. Faggiano F, Vigna-Taglianti F, Burkhart G, et al. "The effectiveness of a school-based substance abuse prevention program: 18-month follow-up of the EU-Dap cluster randomized controlled trial." *Drug and Alcohol Dependence*, 2010; 108 (1): 56–64. Available at <https://doi.org/10.1016/j.drugalcdep.2009.11.018>. Accessed 3 January, 2024.
45. Boumparis N, Loheide-Niesmann L, Blankers M, et al. Short-and long-term effects of digital prevention and treatment interventions for cannabis use reduction: A systematic review and meta-analysis. *Drug and Alcohol Dependence*, 2019; 200: 82–94. Available at <https://doi.org/https://doi.org/10.1016/j.drugalcdep.2019.03.016>. Accessed 3 January, 2024.

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.