

Marijuana Use In College Students With Inflammatory Bowel Disease: A Mixed Methods Study

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Conclusions



1 The healthcare and academic aspects of marijuana use in college students with IBD warrant further investigation.

2 Participants reported ability to avoid opioids and additional pharmaceuticals and manage IBD symptoms, especially nausea, abdominal pain, anxiety and poor appetite, with marijuana use.

3 Our findings provide valuable insight into the attitudes of this vulnerable population towards marijuana use for symptom management and reveal an understanding of its impact on college students' mental and physical health, social life, relationships, and academic needs.

Background

- Patients with Inflammatory bowel disease (IBD) often use marijuana for disease-related symptoms.
- Since legalization in some states, the college-aged population has shown the greatest increase in its use.
- Our study explores attitudes towards marijuana among college students with IBD.

Methods

An **anonymous survey** was administered via REDCap to 108 participants recruited from the University of Florida (UF) IBD Clinic.

Survey consisted of 39 questions on **demographics, disease futures, patterns of marijuana use, disease symptoms, quality of life, and true/false statements about marijuana.**

Responses were compared across two cohorts: **college-aged respondents and respondents older >25y**

Additionally, two 60-minute **focus groups** were conducted via Zoom with 8 participating college students.

Variables	Total (n=8), n (%)
Age, mean (±SD)	22.38 (±1.99)
Gender	
Male	4 (50)
Female	4 (50)
Race	
Caucasian	6 (75)
Black	1 (12.5)
Asian	1 (12.5)
Ethnicity	
Hispanic	2 (25)
Non-Hispanic	6 (75)
Student status	
Current undergraduate student	3 (37.5)
Recently graduated*	3 (37.5)
Graduate or professional student	2 (25)

*Graduated within the past 6 months, were using marijuana as students

Table 2a: Focus Group Participant Descriptors

Results

Table 1. Summary statistics of participants with IBD using marijuana stratified by College Student status

Variable		All	College Student		p-value
			Yes	No	
Number of subjects		108	18 (16.7%)	90 (83.3%)	
Gender	Male	51 (47.2%)	12 (66.7%)	39 (43.3%)	0.0173
	Female	56 (51.9%)	5 (27.8%)	51 (56.7%)	
	Non-Binary	0 (0%)	0 (0%)	0 (0%)	
	Prefer not to answer	1 (0.9%)	1 (5.6%)	0 (0%)	
For how long have you been using Marijuana?	< 1 month	2 (1.9%)	1 (5.6%)	1 (1.2%)	0.1039
	1 to 6 months	3 (2.9%)	0 (0%)	3 (3.5%)	
	3 to 12 months	9 (8.7%)	3 (16.7%)	6 (7.0%)	
	12 months to 5 years	45 (43.3%)	10 (55.6%)	35 (40.7%)	
	> 5 years	45 (43.3%)	4 (22.2%)	41 (47.7%)	
How often are you currently using Marijuana?	Daily or almost daily	71 (68.3%)	11 (61.1%)	60 (69.8%)	0.0941
	1 or more times weekly	17 (16.3%)	5 (27.8%)	12 (14.0%)	
	1 or more times monthly	5 (4.8%)	2 (11.1%)	3 (3.5%)	
How did Marijuana use affect your symptoms overall?	< once a month	11 (10.6%)	0 (0%)	11 (12.8%)	0.2190
	Completely resolved	5 (4.8%)	5 (5.7%)	0 (0%)	
	Significant improvement	59 (56.2%)	47 (54.0%)	12 (66.7%)	
	Mild improvement	36 (34.3%)	32 (36.8%)	4 (22.2%)	
	Unchanged	5 (4.8%)	3 (3.4%)	2 (11.1%)	
	Worsened	0 (0%)	0 (0%)	0 (0%)	
How do you take medical marijuana?	Oral non-edible	12 (13.8%)	1 (7.7%)	11 (14.9%)	0.9354
	Topical	2 (2.3%)	0 (0%)	2 (2.7%)	
	Edibles	21 (24.1%)	3 (23.1%)	18 (24.3%)	
	Inhalation/smoking	52 (59.8%)	9 (69.2%)	43 (58.1%)	
Has Marijuana use affected your relationships at work?	Improved	14 (13.1%)	4 (22.2%)	10 (11.2%)	0.1080
	Worsened	1 (0.9%)	1 (5.6%)	0 (0%)	
	Unchanged	39 (36.4%)	6 (33.3%)	33 (37.1%)	
	Not applicable	53 (49.5%)	7 (38.9%)	46 (51.7%)	
Has marijuana use affected your relationships outside of work?	Improved	38 (35.5%)	8 (44.4%)	30 (33.7%)	0.0289
	Worsened	1 (0.9%)	1 (5.6%)	0 (0%)	
	Unchanged	50 (46.7%)	9 (50.0%)	41 (46.1%)	
	Not applicable	18 (16.8%)	0 (0%)	18 (20.2%)	
Did you have any adverse side effects with medical marijuana?	No	80 (90.9%)	11 (84.6%)	69 (92.0%)	0.3361
	Yes	8 (9.1%)	2 (15.4%)	6 (8.0%)	
Were you previously hesitant to starting medical marijuana based on your concerns?	No	62 (71.3%)	6 (46.2%)	56 (75.7%)	0.0451
	Yes	25 (28.7%)	7 (53.8%)	18 (24.3%)	
Was your decision to start using medical marijuana influenced by its legalization?	No	37 (42.0%)	3 (23.1%)	34 (45.3%)	0.2592
	Yes	49 (55.7%)	10 (76.9%)	39 (52.0%)	
	Not sure	2 (2.3%)	0 (0%)	2 (2.7%)	
If medical marijuana were free, or covered by insurance, how would it affect your use?	Unchanged	29 (33.0%)	3 (23.1%)	26 (34.7%)	0.7711
	Increased use	39 (44.3%)	7 (53.8%)	32 (42.7%)	
	Same quantity but different formulation	16 (18.2%)	3 (23.1%)	13 (17.3%)	
	Not sure	4 (4.5%)	0 (0%)	4 (5.3%)	
Ever given advice on possible drug-drug interactions of marijuana with your prescription medications?	No	61 (64.9%)	12 (85.7%)	49 (61.3%)	0.1693
	Yes	23 (24.5%)	1 (7.1%)	22 (27.5%)	
	Don't know	10 (10.6%)	1 (7.1%)	9 (11.2%)	

Table 3. Emergent focus group themes, conceptual definition, and representative excerpts among focus group participants

Themes	Conceptual definitions	Representative narrative
Impact on IBD symptoms	Using marijuana to manage disease-related symptoms	"I would always be nauseous. And now I kinda use it on a regular basis just to eat"
Negative personal effects of marijuana	Perceived drawbacks of marijuana use in personal, social and academic circumstances	"I can get really anxious if I have too much weed, but if I have, like a normal or like a light amount of weed like, it helps with my anxiety" "When I smoke, I'm much more susceptible to like binge eating."
Impact on IBD treatment	Understanding the difference in treating their IBD vs treating disease related symptoms	"I wouldn't say it like stops flare ups... like for me, it's like the pharmaceuticals what stops flare ups, and the marijuana is like, what limits the symptoms during a flare up."
Impact on pharmaceutical use for symptoms	Changes in requirement of pharmaceutical medications for symptom control, including opioids	"I've had ulcerative colitis since I was 7, so I've tried a lot of different medications at this point and I feel like marijuana has really helped me get my symptoms controlled when a lot of medications just haven't worked or stopped working for me"
Impact on mental health	Impact on mental health symptoms, e.g., anxiety	"I used to take anxiety medication, and ... wanted to take the more natural route, ... didn't like the anxiety medication. It didn't really help my symptoms or any of that, but it did make me ... depressed. more antisocial in a way like it kind of did the opposite, instead of like while I would just smoke."
College-related benefits and challenges	Impact on academic and extra-curricular life	"But that was, I think, a huge part of what got me under control good enough to like, be feel confident, go back to school and finish my degree." "I played college basketball... my first 2 years of college, and we get drug tested. So we so I absolutely did not smoke weed or none of that" "I would just do all my homework before, and then smoke. But that would be like a challenge for me, like trying to know my balance"
Types and patterns of marijuana use	Different types and frequency of marijuana use based on symptoms and circumstances	"And then, if I'm like having like a really bad day, I would resort to like edibles or RSO.. the sublingual" "I use all different types of routes, but I prefer the more instant on demand route that for me, more immediate release."
Impact on social life	Impact of social activities with friends, family and peers	"I still am very social. I would say it doesn't have like any impact." "so not being able to drink while taking Methotrexate, which, and... socializing with friends and relieving stress that way. Turning to more marijuana use was something that I was able to like enjoy while still socializing and still feeling like I was able to have kind of like a relief"
Relationship with family and friends	Navigating inter-personal relationships with family in the setting of marijuana use	"My mom wasn't really supportive either, so we would be in the backyard so like trying to hide it. Do edibles" "my dad.. he was more happy and relieved for me, cause he knew that it would be a much better alternative to what I was currently taking and helping me get off those like pain meds"
Other challenges	Financial and legal challenges of marijuana use	"It wasn't like an issue to smoke weed in my town. but here I already got in trouble once"
Interactions and expectations from medical professionals	Navigating physician interactions in setting of marijuana use, discussing gaps in physician knowledge about marijuana use	"As soon as like I told him about the medical marijuana you could just like tell, like his attitude was fully like different towards me." "all my other doctors, are very for it, especially like at the University of Miami, they were always like telling me like, oh, yeah, have you been like adding it?"

Results

Variables	Total (n=8), n (%)	Variables	Total (n=8), n (%)
Type of disease		Treatment	
Crohn's disease	5 (62.5)	Advanced therapies**	5 (62.5)
Ulcerative colitis	3 (37.5)	Immunomodulator	0 (0)
Duration since diagnosis		Advanced therapies + Immunomodulator	1 (12.5)
<1 year	1 (12.5)	Mesalamine	2 (25)
1-3 years	2 (25)	Steroid use with the past 12 months	
>3 years	5 (62.5)	Yes	2 (25)
Presence of perianal disease		No	6 (75)
Yes	0 (0)	Marijuana use	
No	8 (100)	Medical	2 (25)
History of bowel surgery for IBD		Recreational	4 (50)
Yes	1 (12.5)	Medical + Recreational	2 (25)
No	7 (87.5)		

**Biologics and Small Molecule Drugs

Table 2b: Focus Group Participant Descriptors

- 18/108** survey participants were college students
- Medical marijuana usage was more predominant than recreational use** among both the college cohort and respondents over 25 years old (**8 or 44.4% of respondents and 57 or 65.5% of respondents, respectively**).
- College students** who participated in both medical and recreational marijuana use **reported a higher ratio of medical to recreational use ($p=0.0184$)**.
- College students reported greater hesitancy** compared to the older cohort when deciding whether or not to start using marijuana ($p=0.0451$).
- Our findings are limited due to sample size and possible positive response bias since participants were current marijuana users.
- Eleven themes emerged from focus group discussions (see Table 3).**
 - Participants reported ability to **avoid opioids and additional pharmaceuticals** and manage **IBD symptoms**, especially nausea, abdominal pain, and poor appetite, with marijuana use.
 - It was **helpful in navigating mental health challenges** such as anxiety and college stress, **without impacting their social interactions**.
 - Overall, students demonstrated **cautious use patterns** and **good understanding of different formulary effects**.
 - They **acknowledged challenges** (e.g., binge eating, balancing academic and extra-curricular commitments and deadlines).
 - Since recreational marijuana is illegal in Florida, they voiced **concerns about legal repercussions**.