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## RESEARCH QUESTION

What are the perceptions of the risks and benefits of Cannabis use during pregnancy of patients who are pregnant or in the six-month postpartum period with a social history of cannabis usage? Furthermore, do these perceptions differ from patients' perspectives of cannabis usage in general? How do these patients believe pregnancy is impacted by cannabis usage?

## BACKGROUND

Marijuana, Δ9 - tetrahydrocannabinol (THC), is one of the most used illicit drugs in the United States.<sup>1</sup> Since 1996, 33 states have passed Medical Marijuana Laws including 11 states that have passed recreational marijuana laws.<sup>2</sup> While the increased usage of medical marijuana and recreational marijuana is correlated with increased acceptance and accessibility, the American College of Obstetricians and Gynecologists state that women should not use cannabis during preconception, pregnancy, and lactation. This recommendation is due to the main psychoactive component of cannabis crossing the placenta during gestation.

Amid this recognition, the prevalence of current cannabis uses during and after pregnancy has increased. This increase can be seen across a spectrum of factors including socioeconomic status, age, race, etc.<sup>3</sup> However, less has been published regarding patient perceptions on risks and benefits of cannabis use during pregnancy and the clinical understanding of cannabis' effects during pregnancy and lactation. This study aims to elucidate what these perceptions may entail by surveying the previously or presently pregnant and six-month postpartum patients.

## METHODS

A retrospective cohort study in combination with a cross-sectional in-person survey was performed. Pregnant and post-partum patients up to six months were seen at JPS Women's Health clinic to be identified for the study. After creating a cross-sectional and comprehensive examination survey on usage of cannabis, the survey was distributed to this clinic via a tablet. The patients at the clinic were offered to participate in the study's survey and given an appropriate consent form.

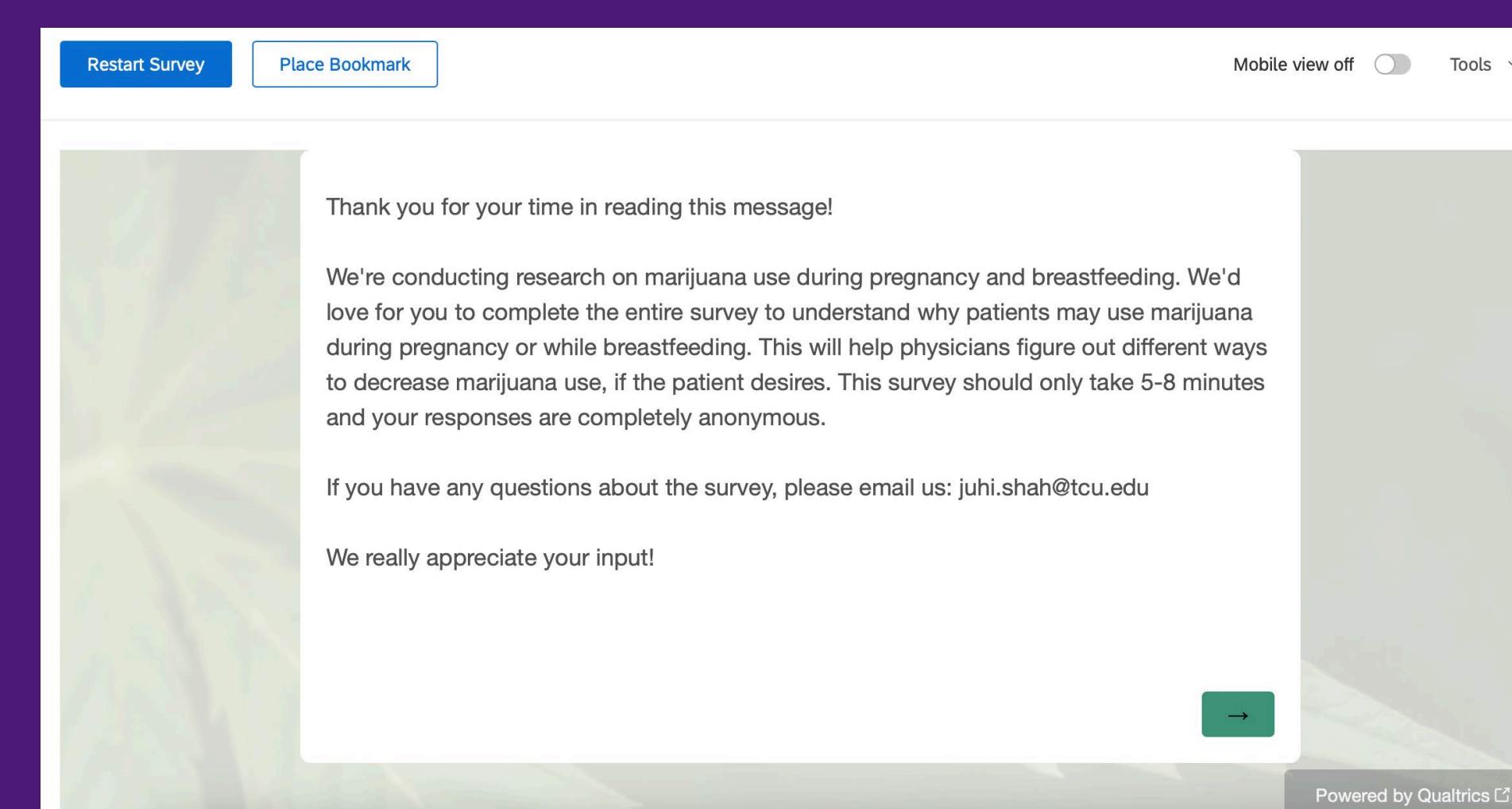
We used a qualitative description methodology to capture patients' perspectives on the risks and benefits of cannabis usage in the prenatal and six-month post-partum stages. Qualitative content analysis involves combining concept-driven and data-driven analysis approaches to the text which was collected at the time of consent during the clinic visit.

Our study examined the perceptions of cannabis use during pregnancy and six-month postpartum period and evaluated for the participants' understanding of the effects of cannabis use during pregnancy and six-month postpartum period.

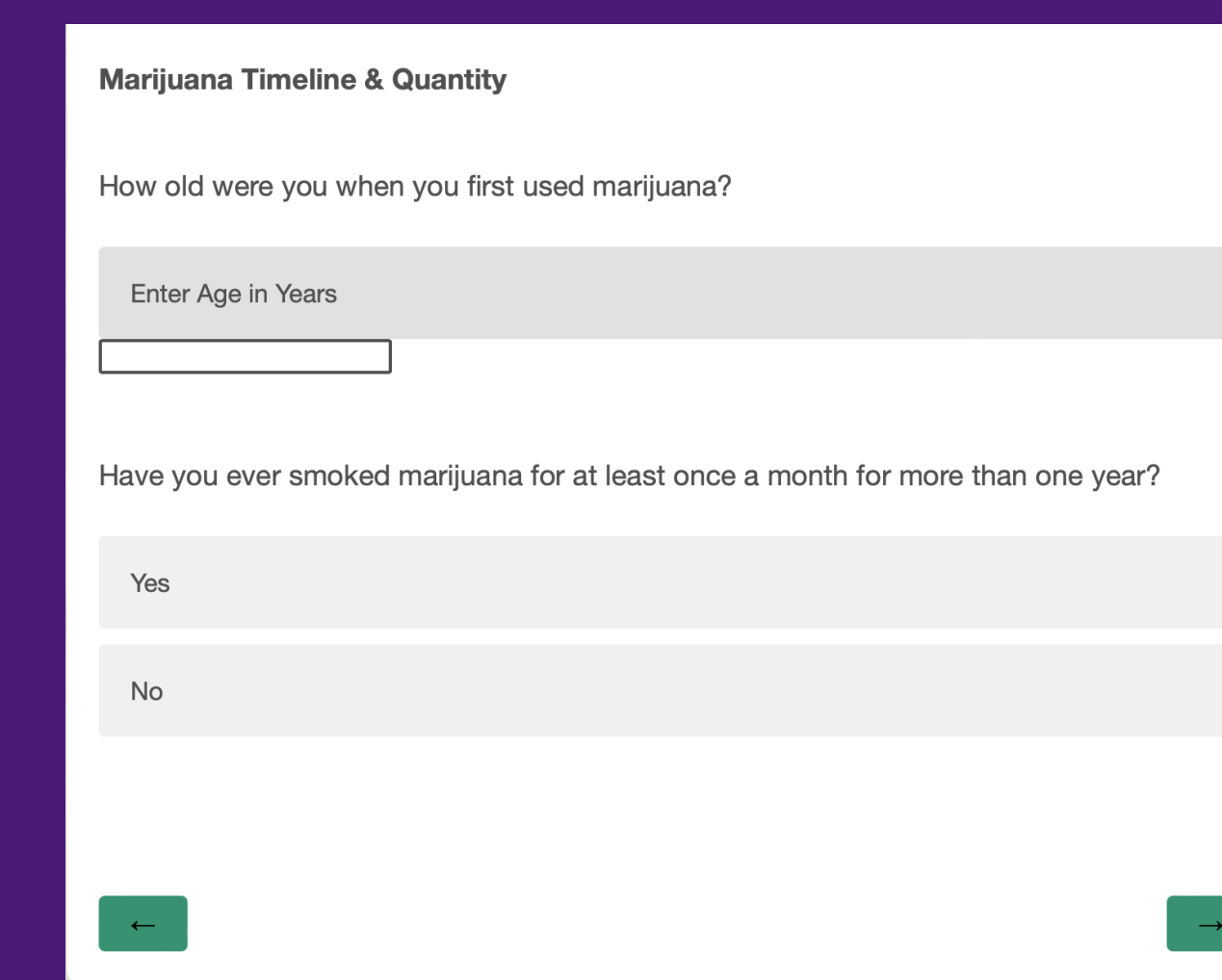
Interestingly, findings from this study revealed that a 40% of the participants did not believe there was harm in using cannabis during pregnancy and six-month postpartum period. There was also a common correlation between participants who were previously pregnant and previously used cannabis. This prior cannabis use was an overwhelming theme as to why participants continued to use cannabis during pregnancy and/or six-month postpartum period. After discovering this correlation, it would be beneficial for healthcare providers to screen for prior cannabis use in order to effectively counsel patients.

Other reasons patients reported cannabis use was to help "calm me down" or "to relax" or "helps with contractions." These major themes as to why participants partake in cannabis use during pregnancy and six-month postpartum phase are vital to their prenatal care as understanding their why can help healthcare providers offer another alternative.

Snapshot of consent form provided to patients



Example of questionnaire on tablet



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## RESULTS

Table 2. Participants' demographic and household information

Characteristics	Mean or n value	Range or Percentage
Age	29.4 (SD 2.56), n=40	18-53 y
Race		
White/Caucasian	5	12.5%
Hispanic	34	85%
Black	2	5%
Black/African American	32	80%
Other	7	17.5%
Education		
High School Diploma	23	57.5%
Some College/College	7	17.5%
College Degree	7	17.5%
Graduate Degree	3	7.5%
Less than a high school diploma	2	5%
Household Income		
<\$15,000	14	35%
\$15,000-\$49,999	18	45%
\$50,000-\$94,999	6	15%
\$95,000-\$99,999	6	15%
\$100,000-\$149,999	1	2.5%
\$150,000 or more	1	2.5%
Living Arrangements		
Living with FOB, married	7	17.5%
Living with FOB, unmarried	10	25%
Not living with FOB, lives close by	6	15%
Not living with FOB, lives far away	5	12.5%
Not in contact with FOB	12	30%

Table 3. Participants' pregnancy and cannabis history

Characteristics	Mean or n value	Range or Percentage
Age when first used marijuana	16.21	12-26 y
Pregnancy History		
Currently pregnant	28	70%
Previously pregnant	12	30%
Currently breastfeeding for less than six months	1	2.5%
Previously breastfed	1	2.5%
Marijuana History		
Currently use marijuana	19	47.5%
Previously used marijuana	17	42.5%
Used marijuana during any pregnancy	18	45%
Used marijuana when breastfeeding for the first six months	2	5%
Continuity of Marijuana Use		
Age when used marijuana for at least once a month for more than a year	18.42	14-26 y
Smoked marijuana for at least once a month for more than one year?	21-yes 19-no	52.5%yes 47.5%no

Table 4. Participants' cannabis use and understanding

Characteristics	Mean or n value	Range or Percentage
Amount of cannabis use		
2-3 times per month	12	30%
2 times a week	13	32.5%
2-3 times a week	4	10%
More than 3 times a day	4	10%
None	5	12.5%
Harm in cannabis use during pregnancy or breastfeeding		
Yes	12	30%
Maybe	6	15%
No	17	42.5%
I do not know	5	12.5%
Harm in cannabis use in general		
Yes	4	10%
Maybe	6	15%
No	29	72.5%
I do not know	1	2.5%
Prenatal care addressed cannabis usage during pregnancy or while breastfeeding?		
Yes	22	55%
No	18	45%
Provider do a good job in addressing cannabis use during pregnancy or while breastfeeding?		
Yes	18	45%
No	22	55%
Participants'ough information about prenatal and postpartum marijuana use		
Yes	8	20%
No	32	80%

Table 5. Major themes and subthemes

Main Themes	Quotations
Reason for marijuana usage	
Calm	"because it calms me down"
Calm	"Calm"
Calm	"helped calm me"
Calm	"helps with pregnancy"
Pain relief	"helps"
Pain relief	"helps with pain of pregnancy"
Pain relief	"helps with contractions"
Pain relief	"helps when I haven't had any sleep"
Pain relief	"to help with pain"
Pain relief	"I was always doing it"
Pain relief	"I've always done it"
Pain relief	"I just because"
Pain relief	"I always do it and there's no risk"
Pain relief	"I just because"
Pain relief	"No harm"
Pain relief	"nothing wrong with it"
Participants' belief why health care provider did not do a good job	
Provider did not discuss	"he did not talk about it"
Provider did not discuss	"he never went over it"
Provider did not discuss	"we never talked about it"
Provider did not discuss	"no idea"
Provider did not discuss	"never talked about it"
Provider did not discuss	"never mentioned it at all"
Provider did not discuss	"open to talk about it"
Provider did not discuss	"didn't explain everything"
Provider did not discuss	"he didn't tell me what could happen"
Provider did not discuss	"I didn't know what it can do"
Provider did not discuss	"I didn't know what it can do"
Provider did not discuss	"I don't know if its bad or good"
Provider did not discuss	"I don't know what can happen when smoking weed"
Provider did not discuss	"not sure"
Provider did not discuss	"didn't know"
Provider did not discuss	"because I didn't smoke"
Provider did not discuss	"I don't smoke so it was not necessary"
Provider did not discuss	"it was a long time ago"
Why medical marijuana should be legalized	
Yes	"Absolutely"
Yes	"if they need it yes"
Yes	"it's not harmful"
Yes	"yes for certain medications"
Yes	"yes I do"
Yes	"that there real more good benefits than bad"
Yes	"yes: it is beneficial for medical purposes"
Yes	"Yes, some peoples nerves calm down and helps with eyes"
No	"no"

## FUTURE DIRECTIONS

Incorporating the framework of ethical concerns of maternal cannabis use during pregnancy or the six-month postpartum period, will help navigate the difficult conversations of reporting substance use. This study hopes to advocate for pregnant or new mothers in extrapolating the perspective of risks versus benefits to relay to clinicians for a therapeutic relationship and optimization of care. In the healthcare field, the primary goal is establishing a healthcare team that the patient has a voice in.

## References

1.<sup>1</sup> Committee Opinion No. 722 Summary. *Obstetrics & Gynecology*. 2017;130(4):931-932. doi:10.1097/aog.0000000000002349.  
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 3. Marron HE, Brown QL, Lund IO, et al. An epidemiological, developmental and clinical overview of cannabis use during pregnancy. *Preventive Medicine*. 2018;116:1-5. doi:10.1016/j.ypmed.2018.08.036.