

Clinical Characteristics of Arkansas Residents Who Have Medical Needs for Marijuana



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BACKGROUND & OBJECTIVE

- Marijuana plant was legalized for medical use in Arkansas in 2016.
- Patients with at least one of the 18 qualified medical conditions can apply for a marijuana registration card in order to purchase marijuana products for medical purposes.
- Medical marijuana (MM) products are not yet available in Arkansas.

OBJECTIVE

- We reported demographic characteristics, self-perceived health-related quality of life (HRQOL), and expectancy effects of marijuana among Arkansas residents who had/or reported having intention to apply for registration card and those who don't. We assumed that participants who had/or reported having intention to apply for registration card planned to use marijuana for medical purposes.
- Factors associated with using MM were examined.

METHODS

Study participants and survey procedure

- Arkansas residents ≥18 years old, understand and able to answer the survey in English
- Convenience sampling, recruited participants from the university's research registry, social media, and head shops across Arkansas
- ≈ 40-minute self-administered online survey was built on Qualtrics®, using skip logic to screen unqualified response

Study measure

- Demographics including age, gender, race, education and socioeconomic status
- Medication use related to the indications of medical marijuana
- HRQOL measures: SF-36v1 (Physical and Mental Component Scale: PCS and MCS)
- Expectancy effects of marijuana measures: the 48-item Marijuana Effect Expectancy Questionnaire (MEEQ)

Statistical analysis

- Participants were categorized into two groups - Individuals who had, or planned to have the card were defined as potential card-holder; individuals who don't have card or don't have the intention to apply it were defined as non-potential card-holder
- Factors associated with intention of using MM were examined using logistic regression models.
- All the analyses were conducted using Stata SE 14.2.

RESULTS

- Overall, potential MM users are having lower educational levels, higher unemployment rate and reported using marijuana (current and past users). (Table 1)
- Potential MM users reported having prescriptions on pain, sleep, mood/anxiety, movement disorders, seizure, and nausea/appetite problems. (Table 1)
- Physical health (PCS) was lower among potential MM users (40.6 vs. 42.3, p=.02). No different between mental health (MCS) between the two groups.
- For the MEEQ instrument, potential card-holders held a different expectancy effect on marijuana in 5 out of 6 domains. (Figure 1)
- Factors associated with increasing the likelihood of using MM are
 - Ever used marijuana
 - Had at least one prescription
- Factors associated with decreasing the likelihood of using MM are
 - Having bachelor's degree or above education
 - Being employed
 - Expected cognitive and behavior impairment from marijuana
 - Expected global negative effect from marijuana

CONCLUSION

- Potential MM card holders appeared to have poorer health and lower socioeconomic status than the group who did not plan to apply for MM card.
- Marijuana use history may have an influence on intention to use MM.
- Expectancy effects of marijuana are associated with an intention to use MM.

Table 1. Characteristics for potential card-holder and non-potential card-holder

	Potential card-holder N=999 (%)	Non-potential card-holder N=815 (%)	p-value
Age			0.35
18-39	399 (40.9%)	324 (40.8%)	
40-64	492 (50.4%)	386 (48.6%)	
≥65	85 (8.7%)	85 (10.7%)	
Mean age (SD)	44.4 (.46)	45.1 (.52)	
Gender			0.08
Female	637 (63.8%)	553 (67.9%)	
Male	333 (33.3%)	241 (29.6%)	
Race			0.54
White	847 (87.2%)	702 (88.2%)	
Non-white	124 (12.8%)	94 (11.8%)	
Educational status**			<.01
High school	209 (20.9%)	64 (7.9%)	
Vocational training	516 (51.7%)	280 (34.4%)	
Bachelor's Degree	158 (15.8%)	232 (28.5%)	
Master's degree	91 (9.1%)	221 (27.1%)	
Employment status			<.01
Unemployed	501 (50.1%)	187 (22.9%)	
Employed	469 (46.9%)	606 (74.4%)	
Use history (N=1260)			<.01
Ever used	614 (92.6%)	417 (69.9%)	
Never use	49 (7.4%)	180 (30.1%)	
Prescription use			<.01
Pain	482 (48.2%)	166 (20.4%)	<.01
Sleep	279 (27.9%)	129 (15.8%)	<.01
Mood/Anxiety	514 (51.5%)	270 (33.1%)	<.01
Movement dis.	156 (15.6%)	46 (5.6%)	<.01
Seizure	27 (2.7%)	7 (0.9%)	<.01
Appetite	164 (16.4%)	32 (3.9%)	<.01
MEEQ score Mean (SD)***	N=711	N=630	
Cognitive and behavior impairment	2.32 (0.72)	3.06 (0.76)	<.0001
Relaxation and tension reduction	3.86 (0.61)	3.53 (0.69)	<.0001
Social and sexual facilitation	3.30 (0.65)	3.05 (0.57)	<.0001
Global negative effects	1.54 (0.60)	2.28 (0.84)	<.0001
Perceptual and cognitive enhancement	3.17 (0.65)	3.17 (0.58)	
Craving and physical effects	3.47 (0.71)	3.56 (0.65)	

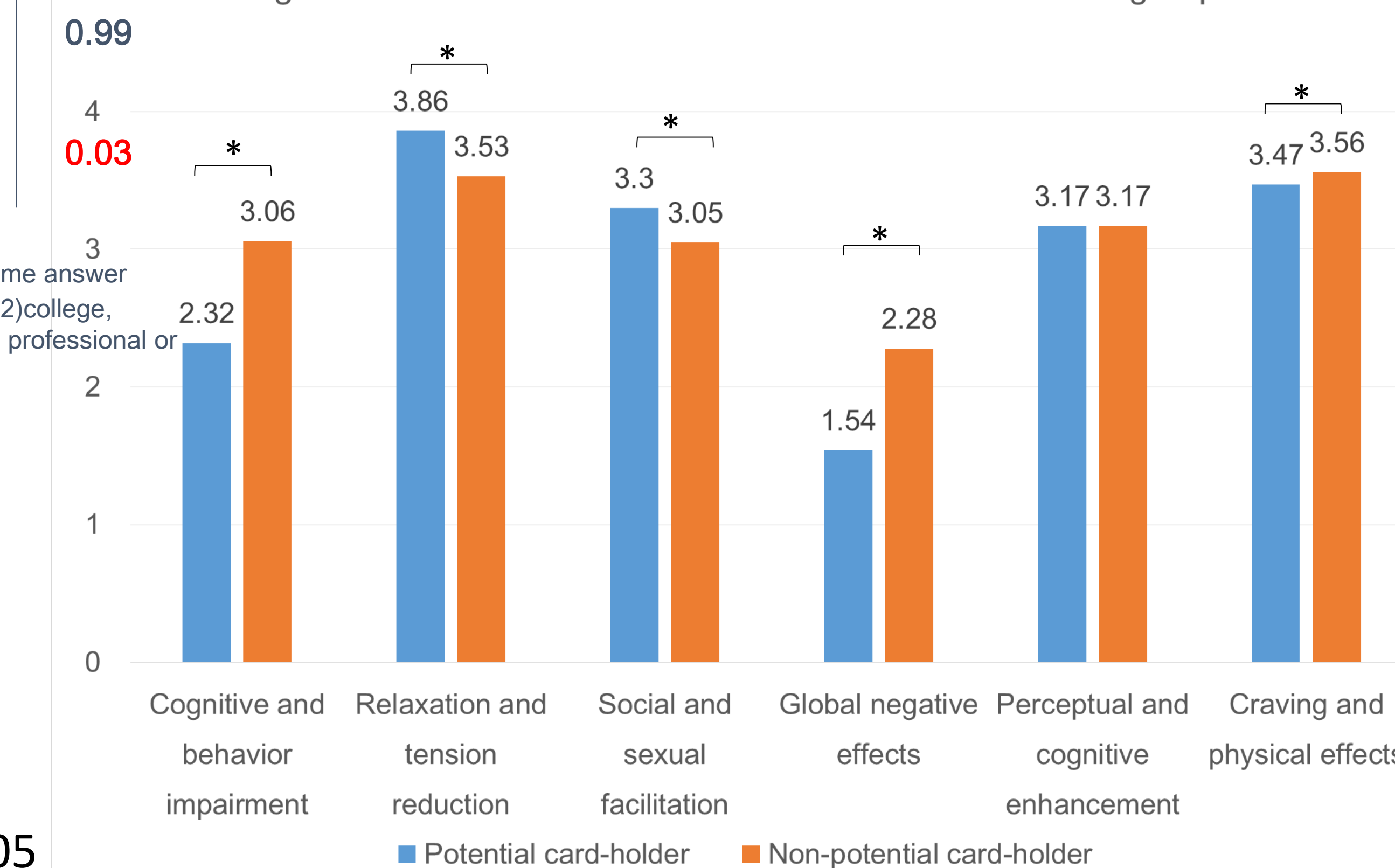
* The percentage may not add up to 100% due to the missing value for some answer
 ** Educational status were categorized in 1)high school or the equivalent, 2)college, vocational training or associate's degree, 3)bachelor's degree, 4)master's, professional or doctorate degree
 *** score range from 1 to 5

Table 2. Odds ratio (OR) for the factors associated with being a potential card-holder

	OR	95% CI	p-value
Age	1.01	.99-1.02	0.26
Gender			
Male	1.17	.84-1.63	0.35
Female	1		
Race			
White	1.11	.70-1.74	0.66
Non-white	1		
Educational status			
High school	1		
Vocational training	0.9	.55-1.47	0.68
Bachelor's Degree	0.48	.29-.82	0.01
Master's degree	0.4	.22-.70	<.01
Employment status			
Unemployed	1		
Employed	0.33	.23-.46	<.01
Use history			
Ever used	1.72	1.06-2.80	0.03
Never use	1		
Prescription use*			
0	1		
1	3.03	2.06-4.45	<.01
2 or more	5.4	3.75-7.78	<.01
MEEQ score			
Cognitive and behavior impairment	0.47	.35-.63	<.01
Relaxation and tension reduction	1.41	1.02-1.95	0.04
Social and sexual facilitation	1.34	.96-1.87	0.09
Global negative effects	0.92	.65-1.30	0.64
Perceptual and cognitive enhancement	0.55	.40-.76	<.01
Craving and physical effects	1.18	.89-1.55	0.25

* Calculated the total number of prescriptions listed in table 1, including pain, sleep, mood/anxiety, movement disorder, seizure, and appetite medications

Figure 1. The mean score for 6 domains in MEEQ for two groups



* p<0.05

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