

## BACKGROUND

- Per Food and Drug Administration, over the counter (OTC) cannabidiol (CBD) products must contain less than 0.3% tetrahydrocannabinol (THC), and should not claim any treatment effect.<sup>1</sup>
- In 2016, CBD sales in the U.S. were \$170 million, with projections of over \$1 billion by 2021.<sup>2</sup>
- Despite the recent surge in popularity and their wide availability, including in pharmacies, pharmacists awareness and knowledge of CBD products is not fully explored.

## OBJECTIVES

- To examine the baseline knowledge of OTC-CBD products among practicing Illinois pharmacists
- To assess the need for continuing education regarding OTC-CBD products among practicing Illinois pharmacists

## METHODS

### Study Design

- Observational cross-sectional study

### Inclusion Criteria

- Pharmacists in Illinois Pharmacists Association (IPhA) or Illinois Council of Health-System Pharmacists (ICHP) who held an active Illinois license and consented to the survey

### Survey development and dissemination

- A survey was developed to assess pharmacists knowledge and comfort with CBD products based on the survey items from a previous study.<sup>3</sup>
- The survey was then pilot tested by faculty and practicing pharmacists to ensure face validity, and was modified based on their input.
- A 20 item survey was electronically disseminated among current members of IPhA and ICHP, with at least one reminder, between August-September 2019.
- A total of 181 practicing Illinois pharmacists responded to the survey.

### Survey sections

- Demographics (age, years working as a pharmacist, practice site and setting)
- Knowledge about OTC-CBD products and laws (6 questions given as true/false or multiple choice)
- Concerns about the use of OTC-CBD products (5 questions on Likert-type scale: No concern – Highly concerned)
- Competency in pharmacotherapy of OTC-CBD products (3 questions on Likert-type scale: Strongly competent – Strongly incompetent)
- Level of preparedness for counseling patients and discussing with health care providers (2 questions on Likert-type scale: Not at all prepared – Highly prepared)
- Current and future education needs

### Data Analysis

- Data were reported using percentages calculated using Microsoft Excel

## RESULTS

Figure 1: Age (years)  
N=181

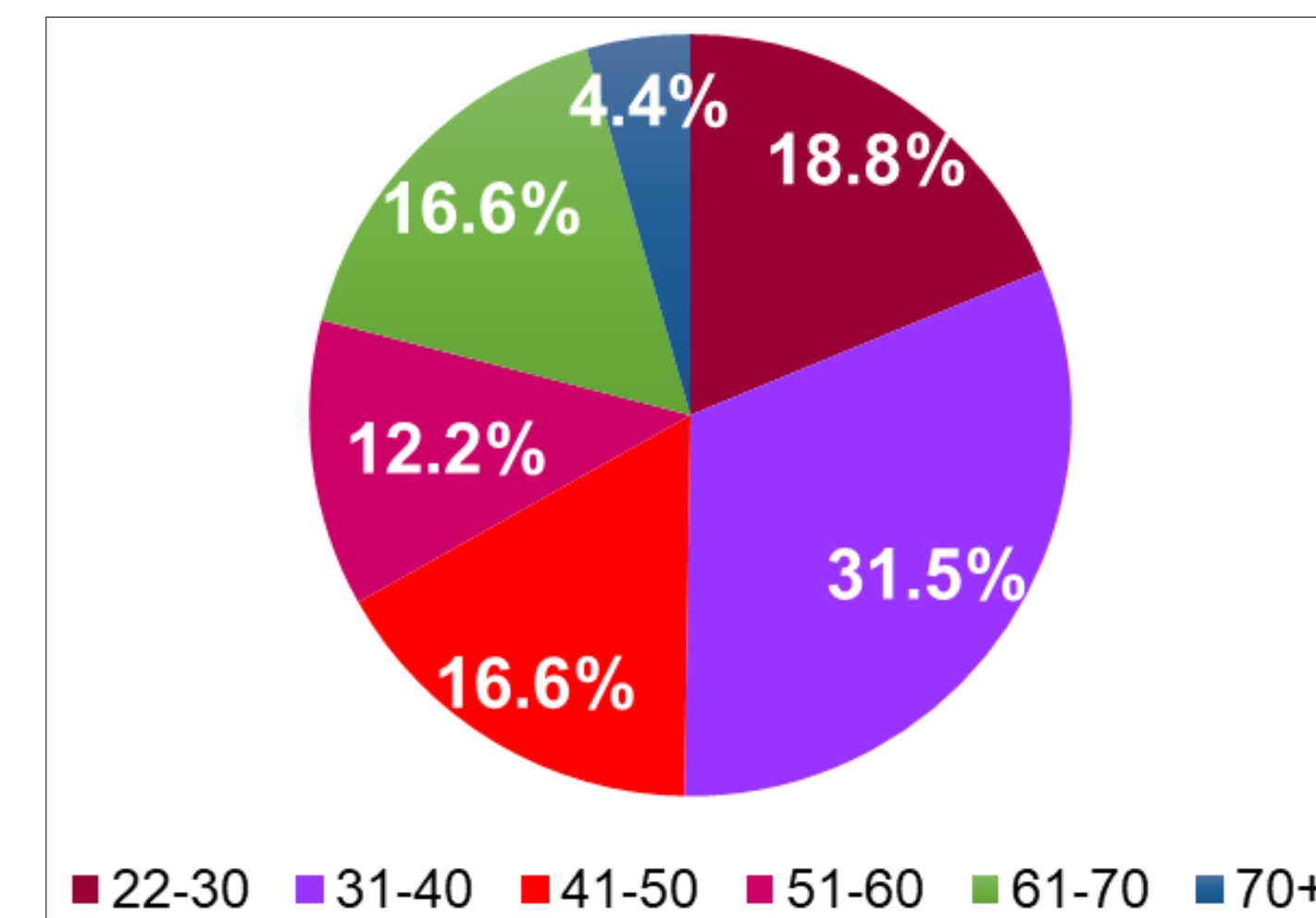


Figure 2: Patients ever asked about CBD products

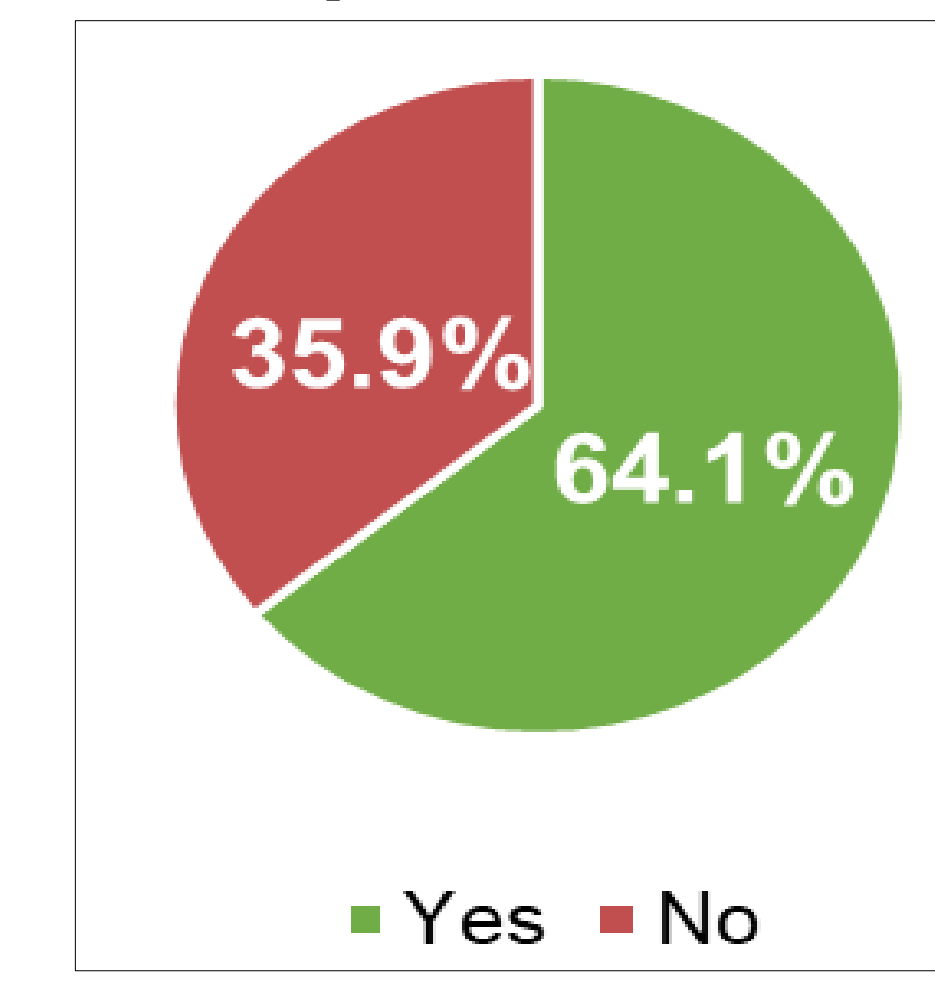
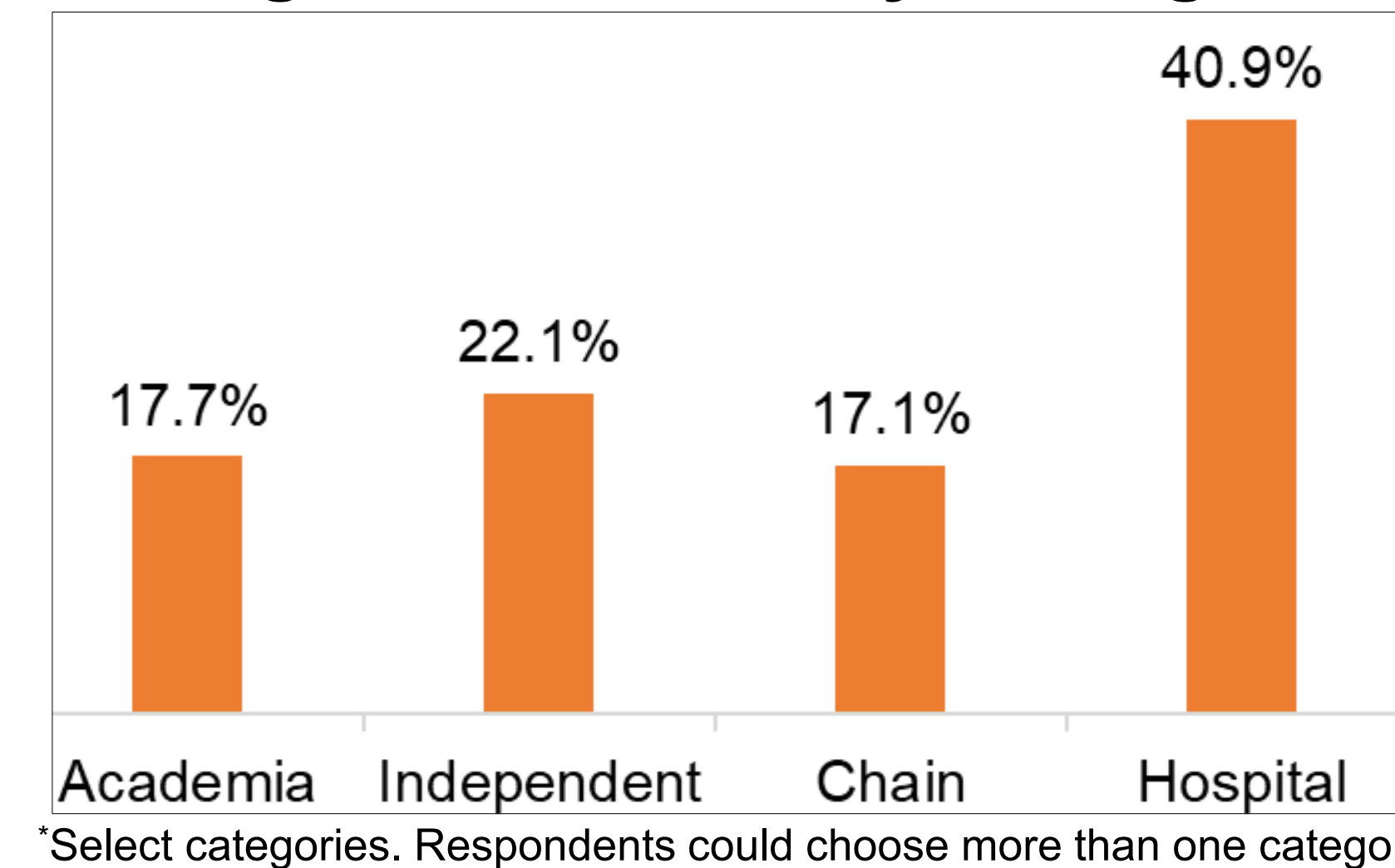


Figure 3: Pharmacy setting\*



\*Select categories. Respondents could choose more than one category.

Table 1: Knowledge assessment about OTC-CBD products

Statement	Correct N (%)	Incorrect N (%)	Unsure N (%)
It is likely for over the counter CBD products that contain no more than 0.3% THC to exert euphoric effects on the user.	99 (55.0)	26 (14.4)	55 (30.6)
Over the counter CBD containing products (i.e. oils, topical products, capsules) are FDA-approved products.	163 (90.1)	6 (3.3)	12 (6.6)
According to the World Health Organization's Expert Committee on Drug Dependence, CBD is generally well tolerated in humans with a good safety profile.	79 (43.6)	18 (9.9)	84 (46.4)

Figure 4: Under the Federal Controlled Substances Act, cannabis derived CBD prescription drugs that contain no more than 0.1% THC are classified under what drug schedule?  
**Correct response: Schedule V**

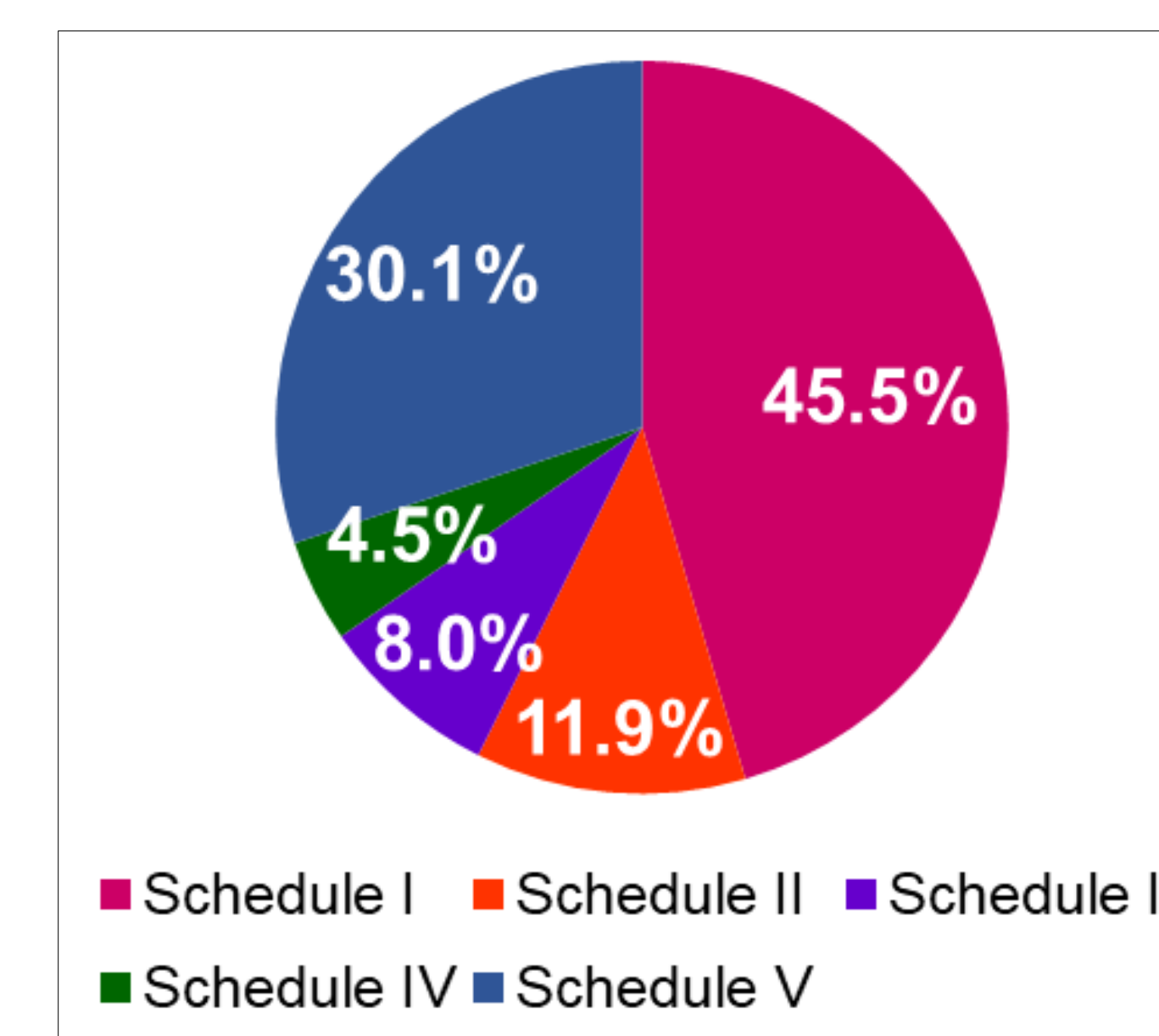


Figure 5: Self-reported competency assessments in pharmacotherapy knowledge of OTC-CBD products

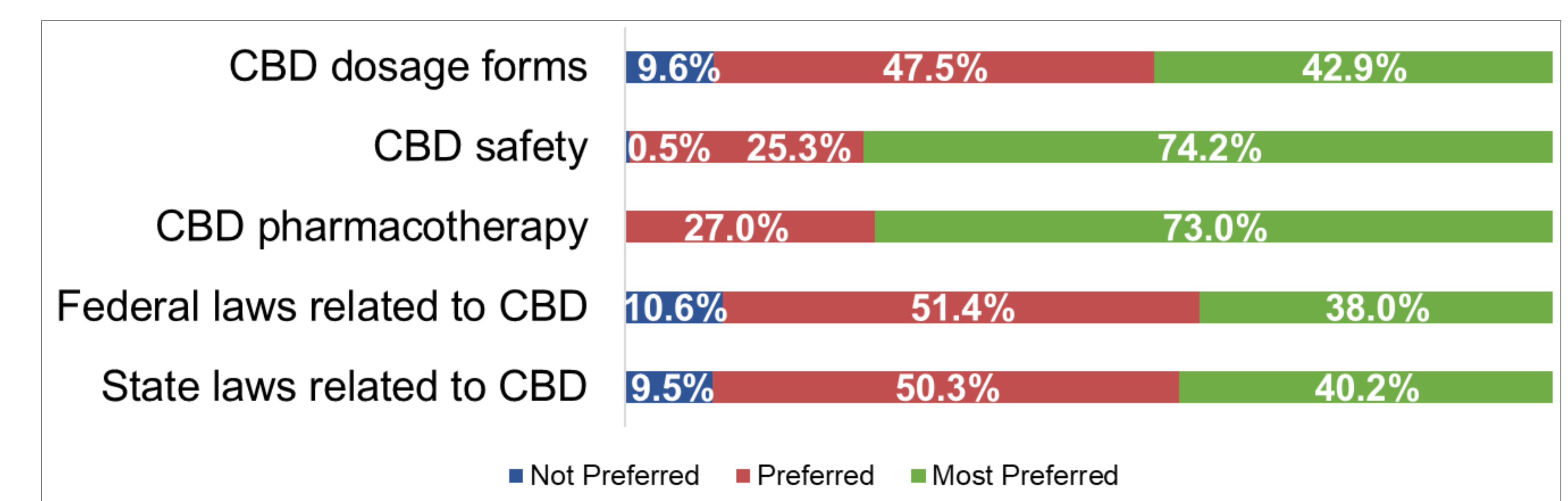
Topic	Competent	Incompetent
Pharmacodynamics	36.9%	63.1%
Pharmacokinetics	36.5%	63.5%
Pharmacology	47.2%	52.8%

## RESULTS

Table 2: Concerns and level of preparedness about OTC-CBD products

Concerns	No Concern N (%)	Slightly/Somewhat Concerned N (%)	Moderately/Highly Concerned N (%)
Safety of OTC-CBD products use (ex: drug interactions, contraindications, and adverse reactions)	5 (2.8)	61 (33.7)	115 (63.5)
Consistency in quality of OTC-CBD products	3 (1.7)	20 (11.1)	157 (87.2)
Federal regulation related to OTC-CBD products	7 (3.9)	49 (27.2)	124 (68.9)
Psychoactive effect and potential addiction from OTC-CBD use	42 (23.5)	73 (40.8)	64 (35.8)
Limited evidence of therapeutic benefits from OTC-CBD use	14 (7.8)	41 (22.8)	125 (69.4)
Level of preparedness	Not Prepared N (%)	Slightly/somewhat prepared N (%)	Moderately/Highly Prepared N (%)
Counseling patients about OTC-CBD products	72 (40.2)	70 (39.1)	37 (20.7)
Discussing OTC-CBD with a healthcare provider	69 (38.5)	72 (40.2)	38 (21.3)

Figure 6: Interest in future education and information



## LIMITATIONS

- Inability to calculate an accurate denominator, and therefore response rate, due to the possible overlap between IPhA and ICHP membership.
- Cross-sectional, observational study design may lead to unmeasured biases

## CONCLUSION

- Pharmacists are in need of additional CBD product training to be able to adequately assist patients
- Areas of interest for learning include CBD pharmacotherapy, CBD safety, and types and forms of CBD products available on the market

## REFERENCES

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- Hwang J, Arneson T, St Peter W. Minnesota pharmacists and medical cannabis: A survey of knowledge, concerns, and interest prior to program launch. *P & T : a peer-reviewed journal for formulary management.* 2016;41(11):716-722. <https://www.ncbi.nlm.nih.gov/pubmed/27904305>.