

STUDY FINDINGS

- A targeted CPE activity can improve pharmacists' knowledge of pertinent information about cannabidiol (CBD) and CBD-containing products.
- CPE activity participants perceive they can utilize the knowledge gained to better counsel and answer questions in CBD users.

BACKGROUND AND OBJECTIVE

- A recent survey in the state of Illinois found that “consumers are seeking information about CBD-containing products” and that “many pharmacists do not feel prepared” to satisfy patient informational needs.¹
- In the state of Alabama, pharmacists can sell CBD products with the responsibility of product quality verification being a pharmacist responsibility.²
- **The purpose of this study was to implement a continuing pharmacy education (CPE) program designed to increase Alabama pharmacists' CBD knowledge and confidence in counseling about CBD products.**

METHODS

Development of 1 hour CBD CPE home study

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Link to CPE Activity Provided to School Preceptors

After Log-In, Participants:

- 124 participants completed CPE
- 64 participants-knowledge-based questions analysis
- 56 participants-confidence question analysis
- Paired t-test analysis performed

Completed Pre-Activity Survey (Demographic, Knowledge and Confidence Questions Included)

Completed CPE Activity (Short Lecture Series on Varying Aspects of CBD)

Completed Post-Activity Survey (Knowledge and Confidence Questions Repeated)

RESULTS

Change in Pharmacist Knowledge

Knowledge Question Average Score by Practice Area

	Pre-Survey (n = 64)	Post-Survey (n = 64)	Mean Difference (95% CI)	p-Value
Average Score				
All practice areas (n = 64)	50.0%	87.8%	37.8% (29.9 to 45.6)	<.001
Independent community (n = 20)	53.5%	88.3%	35.0% (20.5 to 49.5)	<.001
Chain community (n = 27)	51.2%	87.0%	35.8% (20.9 to 50.7)	<.001
Hospital (n = 28)	50.6%	91.7%	41.1% (32.2 to 48.2)	<.001

Note: Since the practice setting question was formatted as a select all that apply; there will be some overlap between practice settings.

CONCLUSIONS

- Participation in a CPE activity resulted in statistically improved scoring on the knowledge-based questions between the pre-survey and post-survey (**50.0% vs. 87.8%, p < 0.001**).
- Knowledge gained led to significant changes in the confidence of participants from baseline on counseling a patient about prescription or over-the-counter CBD products, answering questions from other healthcare professionals about these products, and ensuring the safety of patients while using these products (**Average 5-level Likert scale increases of 1.75, 1.73, 1.70, respectively; all p < 0.001**).

Change in Pharmacist Counseling

Confidence Ranking Question Results

Confidence Ranking Question	Pre-Survey (n = 56)	Post-Survey (n = 56)	Mean Difference (n = 56; 95% CI)	p-Value
Counseling a patient about prescription (Rx) or OTC CBD products	1.98	3.73	1.75 (1.52 to 1.98)	<.001
Answering questions from another health-care professional about Rx or OTC CBD products	1.91	3.64	1.73 (1.50 to 1.97)	<.001
Ensuring the safety of patients while they utilize Rx or OTC CBD products	2.00	3.70	1.70 (1.44 to 1.96)	<.001
Recommend a patient to use OTC CBD or CBD-containing products	1.84	3.41	1.57 (1.31 to 1.84)	<.001

Note: Some of the participants did not answer one of these question(s) on either the pre- or post-survey. After performing a matched pair between surveys, n = 56. Paired sample t-tests were then performed utilizing the difference between survey answers.

REFERENCES

- 1.Link K, Deshpande M, Ferguson M. Illinois Pharmacists and Over the Counter Cannabidiol Products: A Survey on Knowledge and Educational Needs. Innov Pharm. 2020 Apr 30;11(2):10.24926/iip.v11i2.2968. doi: 10.24926/iip.v11i2.2968. PMID: 34007603; PMCID: PMC8051912.
- 2.CBD Oil Update [Internet]. Alabama Board of Pharmacy. Published 2021 Sep. [cited 2023 Mar 1]. Available from: <https://albop.com/oodoardu/2021/04/NEW-CBD-OIL-UPDATE.pdf>.



Scan for pre-exposure survey



Scan for post-exposure survey