Cannabinoid Knowledge and Attitudes among US Healthcare Providers

Magdalena Szafarski, PhD1, Patricia McGoldrick, NP, MPA, MSN2, Lauryn Currens3, Dustin Blodgett3, Hunter Land, MS4, Jerzy P. Szafarski, MD, PhD5, and Eric Segal, MD6

Introduction

- Cannabinoid-based therapies (CBT) are gaining acceptance for the management of treatment-resistant epilepsy (TRE) and other conditions, but health providers are not fully on board.
- 46% of family physicians in Colorado did not support physicians recommending medical marijuana, and only 19% thought that physicians should recommend it. Few thought that marijuana had significant health benefits; 92% agreed that they need further education.
- Only 38% of physicians in Kansas felt well informed about medical marijuana and only 18% have ever recommended it to a patient.
- One study identified key CBT education needs (e.g., risks, safety, dosing) among Canadian physicians.
- However, data regarding knowledge of and attitudes toward CBT, especially cannabidiol (CBD) use for TRE, among diverse healthcare providers are limited.

Study Aim

- To examine and compare knowledge of and attitudes toward CBT, especially CBD, among different provider types in the United States.

Methods

- Targeted, national, and quota-based online survey of US neurologists (n=151), pharmacists (n=150), and nurses (n=150; 60 NPs) was conducted in August-September 2018, after FDA approval of CBD in oral solution (Epidiolex®).
- 29 structured items tapped CBT attitudes, knowledge of endocannabinoid system, pharmacology, products, effects, clinical application, and regulation.
- Respondents demographics and professional/work characteristics were assessed.
- Analysis: cross-tabs/Chi-square tests (p<0.05).

Results

- Respondents were 53% female, 83% white, 4% Hispanic/Latino; 40% worked in private practice and 24% in academic hospitals (Table 1).
- The majority believed that CBD is effective for epilepsy, favored use of CBD for TRE, and thought they needed further education (Fig. 1-2).
- Differences in responses based on provider type were largely nonsignificant (p>0.188; Fig. 1-2; Table 2).

Study Limitations

- Instruments are preliminary and need refinement and validation in other samples.
- Sample is limited.

Conclusions

- US providers appear to believe in beneficial effects and support legalization of CBD for treatment of TRE.
- Notable knowledge gaps were present in questions related to legality and potential interactions with AEDs.
- The majority think that they have sufficient knowledge of cannabis/cannabis-based therapies, but overwhelmingly indicate a need for further education.

References


Acknowledgements

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Factors Associated with Providers’ Attitudes and Knowledge Regarding Cannabis-Based Therapies

Magdalena Szafarski, PhD1, Patricia McGoldrick, NP, MPA, MSN2, Lauryn Currens3, Dustin Blodgett3, Hunter Land, MS4, Jerzy P. Szafarski, MD, PhD5, and Eric Segal, MD6

1Department of Sociology, University of Alabama at Birmingham (UAB), Birmingham, AL; 2Department of Neurology, Mount Sinai Health Systems, New York, NY; 3St. George’s University School of Medicine, St. George, Grenada and Hackensack University Medical Center, Hackensack, NJ; 4Canopy Health Innovations (formerly at Cannabis for therapeutic purposes (CTP) is gaining acceptance for management of treatment-resistant epilepsy (TRE) and other conditions, but providers are not fully on board.

Study Aim

To examine relationships of professional status, context, and demographic factors to knowledge and attitudes regarding CTP among different provider groups in the US.

Methods

Targeted, quota-based online survey of US neurologists (n=151), pharmacists (n=150), and nurses (n=150; 60 NPs) was conducted in August-September 2018, after FDA approval of Epidiolex® (cannabidiol,100mg/mL oral solution).

9 structured items tapped CTP attitudes, knowledge of endocannabinoid system, pharmacology, products, effects, clinical application, and regulation.

2 scales (attitudes, perceived knowledge) and a knowledge test score were constructed.

Respondents’ demographics, professional/ work status and location were assessed.

Analysis included Pearson correlations and multiple regression (alpha=0.05).

Results

Respondents were 53% female, 83% white, 4% Hispanic/Latino; 40% worked in private practice, 24% in academic hospitals; 58% practiced in states with comprehensive medical marijuana law (Table 1).

<table>
<thead>
<tr>
<th>Gender/sex</th>
<th>n</th>
<th>%</th>
<th>median</th>
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<tbody>
<tr>
<td>Female</td>
<td>237</td>
<td>52.5</td>
<td>40.9</td>
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<tr>
<td>Male</td>
<td>207</td>
<td>47.5</td>
<td>45.9</td>
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<tr>
<td>Prefer not to respond</td>
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<td>1.6</td>
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<th>Age group</th>
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<tr>
<td>24-44 years</td>
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<td>45-55 years</td>
<td>132</td>
<td>29.3</td>
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<tr>
<td>56-75 years</td>
<td>105</td>
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<tr>
<td>Prefer not to respond</td>
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<td>0.4</td>
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<tr>
<th>Race</th>
<th>n</th>
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<tbody>
<tr>
<td>White</td>
<td>374</td>
<td>82.9</td>
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<tr>
<td>Black/African-American</td>
<td>16</td>
<td>3.5</td>
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<tr>
<td>Asian</td>
<td>49</td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>3.5</td>
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<th>Professional tenure (number of years)</th>
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<tbody>
<tr>
<td>10 or less</td>
<td>140</td>
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<td>11-15 years</td>
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<td>33.3</td>
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<tr>
<td>16+ years</td>
<td>149</td>
<td>33.7</td>
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</table>

| Neurologists had less positive attitudes than nurses (p<0.02), but knowledge was similar across provider groups (p=0.114), | Attitudes/knowledge were associated with more epilepsy/TRE in practice (p=0.02).

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| Study Limitations

Instruments are preliminary and need refinement and validation in other samples.

Sample is limited and not generalizable.

Conclusions

Support for CTP, especially pharmaceutical-grade CBD, is high among US neurologists, nurses, and pharmacists.

Serving epilepsy/pediatric populations is associated with more positive attitudes and higher knowledge.

State laws are not much of a factor, but, for some providers, organizational restrictions are associated with less knowledge.

| More representative data and professional cannabinoid education are needed.

References


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Research assistance: Zachary McCann, Joshua Tobias