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1. INTRODUCTION

On August 7th 2013, a news article on CNN informs its readers of the journey of a young 6 year old girl named Charlotte Figi (shown in the images below), who has Dravet Syndrome, a rare form of epilepsy. Dravet Syndrome is a branch of generalised epilepsy with febrile seizures (GEFS+) that denotes severe myoclonic epilepsy of infants (SMEI). Caused by dysfunction in GABA receptors and sodium and calcium ion channels, it hinders development in conscious mental activity, causes tonic clonic and myoclonic seizures, and ataxia. It is distinguished in its severity and resistance to treatments, and as the name implies, begins in infancy.

Numerous failed treatment attempts led to the parental decision to try a specific strain of marijuana for Charlotte which was tentatively endorsed by two medical practitioners. The particular strain of marijuana which was high in cannabidiol (CBD) was by far the most successful treatment, and was thought of as a potential viable option for others in similar situations. The article discussed scientific and clinical implications of using CBD to treat epilepsy as it contends with current preconceived misconceptions about the unethical use of medicinal marijuana.

CHARLOTTE FIGI'S JOURNEY...

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2. NEUROSCIENTIFIC CONTEXT

2.1. Introduction

The marijuana strain (shown in image 1) that was used to treat Charlotte's epilepsy has been shown to be low in delta-9-tetrahydrocannabinol (THC) and high in cannabidiol (CBD). Dravet syndrome, also known as Severe Myoclonic Epilepsy of Infancy (SMEI), is a rare and life-threatening form of intractable epilepsy that begins in infancy. (Hill TD et al., 2013)

Image 1: Marijuana strain

Marijuana is a naturally growing plant with the major chemical components include:

- delta-9-tetrahydrocannabinol (THC)- Primary psychoactive constituent of marijuana (Figure 1)
- cannabidiol (CBD)- Primary non psychoactive constituent of marijuana (Figure 2)

Initially, neuroscientists and pharmacologist investigated the molecule THC, with some reports of their anticonvulsant properties that were prevalent through experimentation. However there appears to be a universal consensus among scientific literature that the potential anticonvulsive properties of THC and its isomers could not be implemented into human studies due to it's psychoactivity.

Figure 3 below summarises the effects of marijuana on the normal functioning of different brain regions.

Figure 3: The effects of THC on the brain

2.2 Study 1- (Animal Study)

STUDY : Cannabidiol-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism.

The experiments described in the above research paper (Hill TD et al., 2013) aim to examine the anticonvulsant profiles of cannabis-derived botanical drug substances (BDS) rich in cannabidiol (CBDV) which is a non-psychoactive cannabinoid found in cannabis (Hill TD et al., 2013). The function of this chemical compound is to activate cannabinoid CB1 receptors on cells that repress neurotransmitter release in the brain (Pertwee RG, 1997). A constituent of this compound is cannabidiol (CBD) which is the primary focus of this study due to its proven medical applications for seizures (Zuardi AW et al., 2012). This can be related to our core text as it aims to further investigate the statement made in the CNN article that “Scientists think the CBD quiets the excessive electrical and chemical activity in the brain that causes seizures” (Young, 2013). Acute seizure models with an in vivo design, meaning the use of animal testing was prevalent (Emelda M, 2011), were carried out in order to investigate the attachment of the different parts of CBDV and BDSs at cannabinoid CB1 receptors. These receptors were examined as they are expressed mainly in the brain's central nervous system, where conditions such as Dravet Syndrome are developed (Cultivator C, 2013).

The anticonvulsant profiles of two CBDV BDSs were assessed in three rodent models of intense seizure. This is a useful design for Charlotte Figi's case as she was experiencing extremely intense grand mal seizures for up to 4 hours 300 times a week (Hill TD et al., 2013). The researchers wanted to know if the combination of purified CBDV and CBD produce a synergistic (increased response) or antagonistic (decreased response) to seizure intensity (Tallarida, 2006). This could significantly impact the treatment of epileptic disorders such as Dravet Syndrome as knowing the most effective combination and dose of antiepileptic drugs is essential for sufferers like Charlotte. Static beam and grip-strength tests were conducted in order to objectively quantify the muscular strength and balance of rodents and assess the affect of drugs on muscular degeneration (Hill TD et al., 2013). Binding of CBDV BDSs to cannabinoid CB1 receptors was assessed by employing displacement binding assays which helps to determine the concentration of the test drug that should be administered to epileptic patients like Charlotte.

The results of the supporting study show that both modified (cannabis enriched) and purified (regular)

CBDV BDSs had a considerable anticonvulsant effect in the PTZ model (≥ 100 mg kg⁻¹); the audiogenic seizure model complements this by showing unmodified CBDV BDSs (where the THC and THCV have been removed) also demonstrating strong anticonvulsant activity (≥ 87 mg kg⁻¹). This tells us that THC and THCV do not have a significant effect on the anticonvulsant activity of BDSs. Negative motor effects of CBDV BDSs were examined on static beam performance which can be explained by the presence of THC and THCV in CBDV BDS. The presence of these compounds was also responsible for displacement of CB1 cannabinoid receptors and the limited affinity for CBDV to bind to these receptors. Even though they did not impact the anticonvulsant effect of the cannabinoid it is still preferable that cannabis strains such as 'Charlotte's Web' contains very little amounts of THC, which it does.

These findings strongly support further clinical development of CBDV BDSs for treatment of epilepsy. This is clearly related to our primary research text as the cannabis strain that Charlotte Figi ingests has also proven to have a significant effect on the duration and severity of her seizures. The supporting text augments the CNN article as it provides evidence that cannabidiol has a very low affinity for CB1 receptors. Finally the Stanley brothers were able to cultivate a cannabis strain with 0.5% THC and 17% CBD (Young, 2013). This low percentage of THC and relatively high percentage of CBD is justified in the supporting article as the anti-convulsant actions of CBD were demonstrated in the multiple experiments listed above; and THC was found to only cause the euphoric effects of the drug and does not provide any medical benefits (Cox, 2012).

2.3. Study 2- (Human Study)

STUDY: Chronic administration of cannabidiol to healthy volunteers and epileptic patients.

This study by Cunha J M et al. (2013) explores the chronic administration of CBD to both healthy volunteers and epileptic patients. This was an extremely important study as it is one of the few, well established human studies, which implements the promising results which are expressed through the application of CBD in mice and tries to emulate this for human application.

There were two phases of this study. The first phase consisted of 16 healthy volunteers (who were split up into two groups of 8) who underwent a battery of physical and neurological examinations such as EEG's, blood and urine analysis and ECG's which continued in a weekly testing pattern. In the first group, 3 mg/kg of CBD was prescribed daily for 30 days to 8 healthy volunteers. In the second group of 8 healthy volunteers, they received the same number of identical capsules containing glucose as a placebo drug in a double blind setting.

In the second phase of the study there were 15 patients who were diagnosed with secondary generalised epilepsy with temporal focus. These patients were randomly divided into two groups and received (similar to the first study) a double-blind procedure. However the daily dose of

CBD or placebo was 200-300 mg. The methodology of testing was the same as the first phase of the study, with the exception of the frequency of clinical and laboratory examinations which were every 15 or 30 days, as the duration of this study was four and a half months.

There is no justification, within this study, for the use of 3 mg/kg or 200-300 mg daily as the correct dosage. A further investigation of this revealed that universal dosages has not been established for human studies which concern the effect of CBD on epilepsy. As a result, this required an analysis of an animal study (Jones NA et al., 2012) in order to establish an understanding for potential CBD doses that could be extrapolated onto humans. Jones NA et al. (2012) determined through their study that all doses of CBD (1 mg/kg, 10 mg/kg and 100 mg/kg) decreased the percentage of animals experiencing the most severe tonic/clonic seizures. Therefore the dose of 3 mg/kg or 200-300mg daily can be considered as a reliable dose.

The results for both parts of the study suggest multiple things which are of interests for the purposes of exploring the neuroscientific knowledge which is exhibited in the CNN article. Firstly, this study supports the idea that there was no psychotropic effects of CBD based off of subject testimonies. Furthermore, the results of the neurological and clinical examinations indicated that all patients and volunteers tolerated CBD very well as these tests showed no signs of toxicity. Of the 8 CBD subjects in the second phase of the study, 4 showed considerable improvement in their clinical condition who remained almost convulsive free (which supports the experiences and accounts which are explored in the CNN article in regards to Charlotte's improvement) and 3 other patients demonstrated partial improvement in their clinical condition. CBD was ineffective in 1 patient.

The study concludes that CBD had a beneficial effect in patients suffering from secondary generalised epilepsy with temporal focus who did not benefit from known antiepileptic drugs. A study conducted by Singh R et al. (2001) has concluded that Severe Myoclonic Epilepsy of Infancy (i.e Dravet's Syndrome) is the most severe phenotype in the generalised epilepsy with febrile seizures spectrum. Since Dravet's Syndrome has been classified as a severe type of generalised epilepsy, and selected scientific studies show that CBD has the potential to be used in treating forms of generalised epilepsy, it can be deemed plausible that CBD could be a potential line of treatment for specific epilepsies in the future. However, there have been very few human studies in this area and it is important to note that none of these studies were done on children. In saying this, it would be foolish to ignore the clear parallels between the improvement and experiences of Charlotte's condition and those of the adults in the human study. Ultimately, there is no current concrete scientific evidence to support or advocate the use of CBD as a treatment for Epilepsy or Dravet's Syndrome.

3. ANALYSIS

3.1 Quality of the media item

3.1.1 Target Audience

For the general American public, international audiences and those looking for viable options for alternative epilepsy treatments, CNN somewhat seeks to break the negative social stereotypes of marijuana. For example, there is a slide show in the article that increasingly pairs images of marijuana with smiling faces, and conditions a positive view of the treatment drug. Also, the discussion link within the article provides room for comments however, its contributors are readers of CNN. Therefore, there is a limited, biased audience reading this article. It may not give an accurate sample of opinions but at least it acknowledges that this is an important issue as there is room for open minded discussions.

3.1.2 Quality of information

The article is in opposition with its medium: it's an online article – it has the potential to provide the easiest access to a large list of references, and yet the only links are to their own articles (Spellman, 2013). Keeping the audience so tightly in their network leaves a significant lack of scientific accuracy, and the self-bias limits its ability to give balanced, informed information.

While the author does maintain some scientific accuracy through jargon (e.g. “myoclonus”, “ketones”), it fails to accurately explain a lot of the terms, so scientific content is not the focus of the article. For example, “ketones” do not “suppress seizures” - the mechanisms are actually unknown, and even have in vitro evidence against them (Thio LL et al., 2000). The conversational tone implies that the author is not writing for an audience with a good depth of understanding, so this use of jargon would be to add credibility, and not information. This credibility serves to make marijuana sound more medical, and take it further away from its social stereotypes, and therefore excuse the use of the drug at Charlotte's young age.

The author effectively shifts negative social views of marijuana, also by listing many failed treatments and tests, and thus building sympathy towards the controversial age and drug choice, however he does so at the expense of presenting doctors as incompetent ("Doctors were stumped"). For example, Charlotte's mother is quoted “At 2, she really started to decline cognitively," Paige said. "Whether it was the medicines or the seizures, it was happening”, suggesting it was the treatments that also caused it, whereas cognitive decline is actually part of Dravet's syndrome (Thio LL et al., 2000). The lack of journal references in addition with the accusations of ineptitude ("My thought now is, why were we the ones that had to go out and find this cure? This natural cure? How come a doctor didn't know about this? How come they didn't make me aware of this?") creates an overall negative tone towards the medical community, and reveals a large communication gap between research developments and the general public.

While there is a positive bias towards using marijuana as a medical treatment for children (using “marijuana” to provide credible scientific connotations), there is a caution towards its legalisation (a change to “pot” to call forth the negative stereotypes as seen in the image below) (Spellman, 2013).

Image 2: The stereotypes of marijuana use

3.2. Social context

3.2.1 Ethics

The media article alludes to the ethics by debating the issue of the use of drugs at a very young age. The author justifies the use of medicinal marijuana as having a more positive effect in treatment and its advantages make the age issue less problematic. This means that the concern with age is outweighed by the benefit of marijuana use on epilepsy. Also, this medicinal use goes against medical profession. The article thus has no definitive stance on the issues of age and drugs as it discusses both sides of the argument. This provides mixed views and helps inform this ethical issue to the audience.

The ethics of marijuana is debated because the use of this drug to treat illnesses has both good and bad consequences which should be considered before it can be legalized. The positive effect of marijuana can be seen in the prescribed article as it is successful in treating patients with epilepsy. The effect of legalizing marijuana use is associated with its medicinal use to ease the pain in the illness. The downside to this use is the potential harm it can cause and can be viewed as persuading its illegal use. This issue involves questioning whether the only way to provide successful relief for epilepsy is to use marijuana. Also, whether the potential medicinal use of this drug outweighs the harmful consequences that can arise. (Clark, PA et al., 2000). The patient must have the right to explore all the treatments possible. However, the use of this drug has not yet been legalized and can lead to people resorting to black- market purchasing of this drug (Clark, PA et al., 2000). Thus, the risks associated with the abuse of marijuana are important as it can be fatal. Although, the fight against the debilitating effects that chronic illnesses have on a person has more of an impact on the general public.

3.2.2 Marijuana and Law

The use of medicinal marijuana to treat illnesses has been debated but not yet permitted in Australia (Wodak, 2013). The National Drug Strategy Household Survey of 2010 depicts that it is the most common illicit drug to be used in Australia (Legislative Council, 2013). The medicinal advantage of relieving symptoms of illness such as epilepsy is also conflicted with the increase reliance of this drug that the patient may develop (Wodak, 2013), (Fitzgerald, 2013). Thus prohibiting this drug prohibits its benefits for medicinal use. It has also been recommended for marijuana to be legalized for medicinal use only to patients with terminal illnesses.

3.2.3 Stereotypes

The main stereotype that is common in society and seen in this article is the influence of parents giving marijuana to their child with epilepsy. The parents of the epileptic child, care more about the healing of their child than the actual notion of them becoming "stoned" (as seen in image 2 above). They find that the use of marijuana is a strategy to cope with the effects of epilepsy (Mail Online, 2013), (Zouves, 2012). This stereotype can also be viewed as self-serving of the parent to ultimately improve the quality of their life by curing their child. It is a difficult decision made based on the conflict determining if the harms of the seizures outweigh the effects of marijuana. Current research in this field depicts that the medicinal and prolonged use of marijuana to treat epilepsy have significant detrimental effects to humans, especially children. These include affecting attention, memory and cognitive executive decisions (Zouves, 2012). Thus, administering the child with medicinal drugs, especially at a young age (6 years in media article) can have developmental problems in the future.

The prescribed article battled these stereotypes by alluding that the treatment with marijuana will involve using its extracted oils rather than smoking it. This will eliminate the health dangers of the actual act of smoking it. It also explains that the marijuana strain that will be used to help treat Charlotte's condition will be low in the psychoactive chemicals (e.g. TCH) that cause her to get "drugged/ a high" and will be abundant in advantageous medicinal compounds (e.g. CBD). Within this article, the risks of marijuana are also assessed. It can be concluded that these risks were much smaller in comparison to the major brain damage that Charlotte had already suffered prior from her epilepsy. Marijuana as a medicinal treatment was used as a last resort after all other options failed. Obtaining consent from two doctors for the medicinal use of marijuana and testing the new drug strain were the strategies used stressing that this process was legal.

4. APPENDIX

The core text that our assignment focused on was the CNN article 'Marijuana stops child's severe seizures' by Sandra Young. The CNN website was accessed through a Google search; subsequently epilepsy was typed into the CNN article search engine which produced 199 results, from which our core text was chosen. Numerous other articles were viewed but deemed not as interesting or scientifically relevant in keeping with the requirements of the assignment. The CNN article was shortlisted amongst five other online media items and was eventually chosen through numerous group discussions and meetings as it was published recently, is scientifically accurate, understandable to the general public and aims to abolish stereotypes and bridge the gap between science and society.

Once we had chosen our core text various search tools were used to research the accuracy/quality of the scientific information throughout the article, its bias/appropriateness to the target audience, the scientific/social context within which it was written and other related/contrasting media pieces. Each group member was allocated a specific task. When researching the article's bias or forced direction, links to related articles and videos from the CNN article were explored as CNN did not provide any other credible references. Aside from this, multiple Google searches were conducted to gather reliable and valid information from websites primarily focusing on and informing our judgements on the accuracy/quality of scientific information and the social/scientific context of our online media item. Finally, when

assessing the quality of information, a significant portion of this was determining whether it is in accord with accepted current understanding of neuroscience. Therefore numerous research articles were reviewed by using search tools via the UNSW library website such as 'SearchFirst,' 'A-Z e-Journals,' 'Find Databases,' and the 'Catalogue.' Through these search tools many journals such as 'Seizure' and 'The Journal of Pharmacology and Experimental Therapeutics' were examined via online databases of scientific literature and studies for example PubMed, Google Scholar and Wiley Online Library.

Our group felt that the students who reviewed our wiki page overall were quite positive in their review. There were numerous strong points noted as well as a few congruent weak points that we later tried to rectify with the help of the general and specific constructive criticism given. Our peers suggested the primary strengths of the wiki page were the thorough explanation of the major components of the cannabis strain, the critical analysis of the article, the inclusion of a comprehensive human and animal study, and the 'Quality of Information' section. The weak points included not explaining epilepsy and particularly Dravet Syndrome in much detail, the social context was too broad and not related back to the focus of the article, more of an Australian perspective and there were no figures or charts. We thought all of these points were valid and in order to improve our wiki page and eliminate these weak points we were able to address these concerns in the following way: Under 'Social Context,' a discussion of possible future strategies that can allow treatment in Australia as well as how stereotypes can be abolished was suggested by a reviewer. Shortening this section was also suggested, thus the content of this section was assessed by our group and it was decided that cutting down this section is more appropriate as we have already surpassed the word limit. In addition, more tables and graphs will be added to break up the text as well as more information on epilepsy and Dravet Syndrome. We were unable to include tables or graphs for the human study as it was published in the 1940's so there were none available. Finally, the inconsistent sizing of the headings that were brought to our attention will be fixed; along with all the references under each paragraph being deleted as having all of them at the bottom of the wiki page will reduce clutter and ensure a better flow to the article.

5. REFERENCES

- Hill, T D., et al. "Cannabidiol-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism." *PubMed* (2013): Web. 3 Sept. 2013. <http://www.ncbi.nlm.nih.gov/pubmed/23902406>.
- Pertwee, R G. "Pharmacology of cannabinoid CB1 and CB2 receptors." *PubMed* 74.2 (1997): 129-180. Web. 3 Sept. 2013. .
- Zuardi, A W. "A critical review of the antipsychotic effects of cannabidiol: 30 years of a translational investigation." *PubMed* 18.32 (2012): 5131-5140. Web. 3 Sept. 2013. .
- Young, Sandra. "Marijuana stops child's severe seizures." *CNN*. Cable News Network, 7 Aug. 2013. Web. 4 Sept. 2013. .
- Emelda, M. "Difference Between In Vivo and In Vitro." *DifferenceBetween.net*. N.p., 27 Apr. 2011. Web. 4 Sept. 2013. .
- Cultivator, Campo. "Dravet Syndrome and the 20:1 cannabis treatment – Searching for the CBD,

- part II." *Growers Guide to Cannabis*. N.p., 2013. Web. 4 Sept. 2013. [_](#)
- Tallarida, Ronald J., et al. "An Overview of Drug Combination Analysis with Isobolograms." *The Journal of Pharmacology and Experimental Therapeutics* 319.1 (2006): 1-7. Web. 5 Sept. 2013. [_](#)
 - Cox, Lauren. "What is THC?." *livescience*. TechMedia Network, 5 Nov. 2012. Web. 5 Sept. 2013. [_](#)
 - "What is Dravet Syndrome?." *Dravet Syndrom Foundation*. silver creative group, 2013. Web. 30 Aug. 2013. [_](#)
 - Cunha, J M., et al. "Chronic administration of cannabidiol to healthy volunteers and epileptic patients." *PubMed* 21.3 (1980): 175-185. Web. 30 Aug. 2013. [_](#)
 - Singh, R., et al. "Severe Myoclonic Epilepsy of Infancy: Extended Spectrum of GEFS+?" *Epilepsia* 42.7 (2001): 837-844. Web. 1 Sept. 2013. [_](#)
 - Jones, N A., et al. "Cannabidiol exerts anti-convulsant effects in animal models of temporal lobe." *Seizure* 21 (2012): 344-352. Web. 1 Sept. 2013. [_](#)
 - Spellman, Jim. "Pot activists divided over new cannabis club." *CNN*. Cental News Network, 2 Jan. 2013. Web. 1 Sept. 2013. [_](#)
 - Thio, L L., et al. "Ketone bodies do not directly alter excitatory or inhibitory hippocampal synaptic transmission." *PubMed* 54.2 (2000): 325-331. Web. 1 Sept. 2013. [_](#)
 - Wodak, Alex. "Legalising medicinal cannabis is a leap forward for compassion ." *The Conversation*. The Conversation Media Group, 16 May 2013. Web. 2 Sept. 2013. [_](#)
 - "The use of cannabis for." *Legislative Council*. N.p., 15 May 2013. Web. 2 Sept. 2013. [_](#)
 - Fitzgerald, Ross. "Time to get real on cannabis use ." *The Australian*. N.p., 18 May 2013. Web. 3 Sept. 2013. [_](#)
 - "Medical marijuana provides 'miraculous' results for 6-year-old California boy with rare form of epilepsy that prevented him from walking, sleeping and eating." *Mail Online*. Associated Newspapers Ltd, 11 Aug. 2013. Web. 29 Aug. 2013. [_](#)
 - Zouves, Natasha. "Ryan's Story: Medical Marijuana And Autism." *Neon Tommy*. USC Annenberg, 12 Jan. 2012. Web. 29 Aug. 2013. [_](#)
 - Clark, Peter A., et al. "The Ethics of Medical Marijuana: Government Restrictions vs. Medical Necessity." *Journal of Public Health Policy* 21.1 (2000): 40-60. Web. 3 Sept. 2013. [_](#)
 - Figure 3: <http://headsap.scholastic.com/articles/endocannabinoid> Web. 1 Sept. 2013.
 - Image 1: <http://benswann.com/breaking-did-the-federal-government-just-legalize-marijuana/> Web. 3 Sept. 2013.

6. PLANNING

Topic: Marijuana and Epilepsy

Members:

Ananthan Ambikairajah	z3415376
Cartia Dagher	z3418629
Nataliya Daniel	z3418703
Rian Wollstein	z3415960

Media Piece:

[Marijuana and Epilepsy CNN Article](#)

Great topic - should be very interesting. Lots of interesting science and ethical issues.

Approved

Task Allocations/Jobs:

Nataliya:

- Intro
- Accuracy/Bias/Appropriateness to Target Audience

Ananthan:

- Scientific Context (/knowledge)
- Quality of scientific info

Cartia:

- Social Context (/knowledge) -ethics, media stereotypes
- Editing

Rian:

- Related/Contrasting Media Pieces/References
- Quality of scientific info

Meetings (Tuesdays and Thursdays- 30 minutes each)

Wednesday August 7th - 40min

Tuesday August 20th - 30 min

Thursday August 22nd- 30 min

Tuesday August 27th - 30min

Thursday August 29th - 30min

Our Deadlines

Thurs 22nd - Rough bullet points for meeting

Thurs 29th - Rough draft for each section

Sept 4th - Editing deadline

Deadlines for Draft Submission of Assignment:

Introduction- Nat and cartia

Neuroscientific Introduction- Ananthan

Analysis of paper (human) study # 1 - Annathan

Analysis of paper (mice) study # 2- Rian

Neuroscientific Conclusion- Ananthan

Analysis for the quality of Media Item:

- Target audience- Nat

- Stereotypes- Cartia

- Quality of information in article- Nat and Cartia

- Ethics- Cartia

Appendix/Referencing- Rian

Official Deadlines

Draft - Sept 9th 10am

Review Comments - Sept 16th 10am

Final - Sept 23rd 10am

Currently there is very limited scientific evidence in regards to the role of CBD epilepsy. There have been a few studies which investigate the potential use of CBD as an antiepileptic drug. Through our dissection of scientific literature we have broken down the research into two studies which explore the role of CBD on mice and humans respectively. The animal study investigates current anticonvulsant properties of CBD, whereas the scientific literature regarding the clinical applications of CBD on epilepsy in human studies is quite limited. Both studies endeavour to encapsulate a holistic understanding of the current body of scientific knowledge regarding the scientific and clinical implications of CBD to epilepsy. This has resulted in the in depth exploration of these scientific studies with the incorporation of previous scientific literature/knowledge in the area. Constant links and parallels are drawn between these research papers and their implications for an unbiased understanding of the neuroscientific content in the CNN article.