Electroconvulsive Therapy Is Beneficial

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Abstract

Electroconvulsive therapy is a psychiatric treatment whereby electricity is used to induce an epileptic seizure in both hemispheres of the brain. In this paper, I argue that electroconvulsive therapy is beneficial. The benefits of electroconvulsive therapy include increased effectiveness in treating various psychiatric disorders. In addition, electroconvulsive therapy can help manage destructive behaviors of individuals struggling through psychiatric disorders. I also consider alternative positions on electroconvulsive therapy such as the belief that physicians do not provide adequate information when obtaining patient consent. This paper is important because of the prevalence of psychiatric disorders and the need to develop effective treatments. Psychiatric disorders are a worldwide issue, and it is important to recognize that any and all treatment methods are acceptable if effective. I conclude my paper by stating the importance of having electroconvulsive therapy readily available around the world.

Keywords: Electroconvulsive therapy, psychiatric disorders, self-harming, patient consent, memory loss

Electroconvulsive Therapy Is Beneficial

With the evolution of medicine in the field of psychiatry, countless forms of treatments have been discovered. These treatments have been developed overtime to treat the wide variety of psychiatric disorders we have today (Harvey & Gumport, 2015). In an effort to find a practical treatment for these disorders, scientists discovered electroconvulsive therapy.

Dr. Max Fink, an American neurologist and psychiatrist, has described electroconvulsive therapy as an effective medical treatment where a physician administers a short-acting anesthetic to subdue the patient, the physician then uses electricity to induce an epileptic seizure in both hemispheres of the brain (Fink, 2019). Over 80 years ago, László Meduna, a Hungarian psychiatrist and neuropathologist, first introduced convulsive therapy as a treatment for psychiatric disorders. Meduna hypothesized that by chemically inducing epileptic seizures, the effects of a psychiatric disorder could be managed, there by treating the disorder itself. His work inspired Italian physicians Ugo Cerletti and Lucio Bini to introduce electricity to induce the seizures, creating electroconvulsive therapy (Gazdag & Ungvari, 2019).

In this paper, I argue that electroconvulsive therapy is beneficial. I support my position with the following three arguments. First, electroconvulsive therapy is beneficial as it can help treat a wide range of psychiatric disorders. Second, electroconvulsive therapy can often be more effective compared to prescribed medication. Lastly, electroconvulsive therapy can help manage self-harming behavior and suicidal tendencies of individuals with psychiatric disorders (Carney, 2003).

I also consider the following alternative positions. First, many people argue that physicians do not provide adequate information when obtaining patient consent as they fail to mention it is a possible placebo. Second, electroconvulsive therapy is considered by many to be unethical because of the pain caused by the treatment. Lastly, electroconvulsive therapy may be said to cause cognitive side-effects and memory loss (Reisner, 2003). While these

positions have merit, I show that the benefits of electroconvulsive therapy far outweigh the drawbacks. In addition, I illustrate how some of these points lack empirical evidence. This paper is important because countless people across the world struggle with some form of psychiatric disorder and it is important to recognize that any form of treatment is acceptable if it is effective.

The Benefits of Electroconvulsive Therapy

Although it may be controversial, electroconvulsive therapy has a wide range of benefits that cannot be dismissed, regardless of public opinion. The wide range of applications along with their outstanding results with most patients have made electroconvulsive therapy an essential treatment method in modern psychiatric medicine.

Capable of Treating Various Disorders

Over the years, studies on electroconvulsive therapy have been conducted to assess its applications in treating a range of psychiatric disorders. Patient cases that effectively show this treatment's wide range of applications are described in an article by Wachtel (2010). Wachtel revealed how electroconvulsive therapy could be used in the treatment of catatonic autism patients of all ages. The article focuses on three patient cases, each is described at different points throughout this paper to effectively convey the benefits of electroconvulsive therapy.

The first case study by Wachtel (2010) focuses on a seventeen-year-old Caucasian male. The patient was diagnosed with acute autism and began showing signs of catatonia (physical immobility) at the age of fifteen. After an initial acute treatment of electroconvulsive therapy, the patient immediately responded, showing a dramatic improvement in his catatonia by regaining muscle control. At the time of publishing the article, the patient had been receiving regular courses of electroconvulsive therapy for two years, his catatonia had completely subsided, and he was capable of attending school and participating in physical activities without any hindrance. This patient's case effectively displays how electroconvulsive therapy can be applied to not only improve overall mental

status but to also reduce the cognitive and physical side effects of the patient's psychiatric disorder.

Another instance where electroconvulsive therapy was used to further understand its range of applications is in a study conducted by van Duist, et al. (2020). This study focused on the effects of electroconvulsive therapy on depression and consisted of 60 patients with varying degrees of depression, with ages ranging from 31 to 92. After a seven-month research period, the collected data showed an overall success rate of 86.89% with 42 patients being fully remitted after the initial treatment, six patients fully remitted by the three-month follow-up, and five patients fully remitted by the six-month follow-up. Evidently, electroconvulsive therapy has an exceptional success rate when treating various psychiatric disorders in people of all ages, genders, and ethnicities.

Effectiveness

Research shows that the level of effectiveness of a typical drug treatment is not standard across all patients. In the instances where drugs have minimal results, electroconvulsive therapy can be considered as an alternative for those seeking a more effective treatment and for those who do not respond to drug treatments whatsoever. An example is shown in the second case from Wachtel (2010), which focuses on a fourteen-year-old boy with high functioning autism who experienced a six-month period of progressive immobility. The patient was prescribed alprazolam (a drug for panic disorders) and diazepam (a benzodiazepine drug) with no reduction in catatonia. The patient was then put on an intensive lorazepam regiment (a benzodiazepine drug) but remained catatonic. After much deliberation and a struggle to find a team of qualified personnel, the patient received a course of electroconvulsive therapy. After the first course of treatment, the patient showed 80% reduction of catatonia. However, because of the limited availability of electroconvulsive therapy in the patient's home state and the need to travel for treatment, the patient could not continue the course, leading to a relapse after three weeks. This information shows how the lack of availability of electroconvulsive therapy mitigated a child's treatment.

The effectiveness of electroconvulsive therapy in comparison to prescription drugs is further shown by a recent study conducted by Youn, et al. (2016). The study showed how electroconvulsive therapy could be used as a treatment method in schizophrenic patients who did not responded to clozapine, a drug commonly used to treat this disorder. The study was conducted over a two-year period from 2016 to 2018, wherein patients aged from 20 to 65 and had been prescribed clozapine with no success. After a consistent two-year treatment of electroconvulsive therapy, 47.8% of the patients showed a 20% improvement in psychotic symptoms, an improvement that is greater than that seen in patients who take clozapine. The remaining patients showed an improvement approximately equal to patients who are consistently taking clozapine as a treatment method. Therefore, evidence suggests that electroconvulsive therapy can be more effective compared to typical drug treatments and can often be used as an alternative treatment method for drug resistant patients.

The Dangers of Psychiatric Disorders

Unfortunately, the lack of early intervention and effective treatments result in those suffering through psychiatric disorders having lifelong cognitive side effects. In extreme cases these disorders can lead to self-harming behavior and suicide attempts, making any form of treatment a viable option to minimize a patient's destructive behavior. An example is shown in the third case from Wachtel (2010), which focuses on a twenty-one-year-old Romanian female. The patient was adopted at an early age after years of parental neglect. As a toddler, she was diagnosed with severe mental retardation and developed catatonic episodes, which were followed by years of chronic self-injury throughout her childhood, resulting in retinal detachment and traumatic cataract. The patient also developed a severe case of anorexia that led to her requiring a gastrostomy tube placement to survive. By the age of 16 the patient was fully catatonic and was being prescribed almost all psychotropics available in the United States of America to treat her, all of which showed no success. An acute course of electroconvulsive therapy resolved her catatonia entirely and completely

eradicated any self-harm behavior. The patient was finally able to attend school and function without limitations with regular courses of electroconvulsive therapy.

Further implementations of electroconvulsive therapy were conducted to evaluate its effects on expressed suicidality. In a study conducted by Tor, et al. (2020), 113 suicidal schizophrenic patients, with ages ranging from 18 to 65, were subjected to two years of electroconvulsive therapy while being constantly monitored. The first signs of improvement appeared as early as two weeks into the treatment. By the end of the study, 91 patients experienced complete eradication of their expressed suicidality. The researchers theorized that these results were possible as a result of the electroconvulsive therapy targeting the symptoms of the patient's mania and depression. These studies have shown how psychiatric disorders have risks of physical harm, and in extreme cases, death. With the help of electroconvulsive therapy these risks could possibly be managed and completely eliminated.

Potential Drawbacks of Electroconvulsive Therapy

Although electroconvulsive therapy may be a beneficial treatment, it is vital to assess all of its aspects when moving forward with such a sensitive matter. More specifically, the lack of information provided when obtaining patient consent and the ethics behind this treatment has put into question its place in modern psychiatric medicine.

Patient Consent

It is imperative that with modern medicine, experts and physicians abide by a set code of ethics. This code requires them to educate a patient of the details of a treatment in order to receive informed patient consent. However, with the ongoing debate regarding the use of electroconvulsive therapy in clinical treatments, some physicians have opted out of informing patients of the theories surrounding the possibility of electroconvulsive therapy being a placebo. Critics argue that this decision questions if physicians are adequately informing their patients of the treatments details in order to receive appropriate consent for the treatment. Torrance (2014) explains how many physicians theorize that the effectiveness of electroconvulsive therapy is simply a placebo effect that developed over time. Torrance goes

on to emphasize the findings of various studies discussing their standing on sharing the theory that electroconvulsive therapy is a placebo. The studies describe the possibility that informing a patient of this theory will negatively influence their decision about moving forward with the treatment. This outcome is undesirable since it may result in the patient opting out of the treatment because of a theory that is yet to be supported by any research. Torrance's investigation into other studies also revealed that the possibility of electroconvulsive therapy being a placebo is highly unlikely considering its success rate is much greater than that of a placebo.

The requirements for patient consent are clarified in Blease (2012). Blease explains how current clinical guidelines in the United States of America require doctors to convey the following to their patients:

> The nature and purpose of a proposed treatment or procedure, the risks and benefits of a proposed treatment or procedure, Alternatives (regardless of cost...), the risks and benefits of the alternative treatment or procedure and the risks and benefits of not receiving or undergoing the treatment procedure (p.175).

According to these guidelines, it is not a requirement to inform a patient of how or why a treatment works and if that treatment is a placebo. Therefore, it can be concluded that the information given to patients concerning electroconvulsive therapy does abide by current clinical guidelines.

Pain Endurance

Electroconvulsive therapy is a delicate process that can result in extreme pain. Critics argue that there are two points in the procedure that could potentially induce high levels of pain. The first being the administration of the anesthesia and the second being the electrical induction. Electroconvulsive therapy requires an injection of propofol, which is an anesthetic that is known to induce an intense feeling of pain and burning when administered. Tan, et al. (1998) found that the occurrence of pain from propofol varied from 28% to 90% in adults and 20% to 85% in children, the younger the child the more likely the occurrence of pain. Li, et

al. (2017) conducted a study to find a viable solution to this obstacle. The research was focused on the effects of dexmedetomidine (an anxiolytic, sedative, and pain management drug) on the pain caused by propofol. The study consisted of 137 participants from the ages of 16 to 55 who were seeking electroconvulsive therapy as a treatment for some form of preexisting psychiatric disorder. The participants were given dexmedetomidine before the administration of the anesthetic to observe its effect on pain levels. The study found that when dexmedetomidine was administered, the participant felt little to no pain from the propofol. Furthermore, when comparing the results from experimental group to that of the control group, the efficacy of the electroconvulsive therapy was not affected.

The ability to eliminate the pain caused by propofol is further illustrated in Jalota, et al. (2011). Jalota analyzed the results of almost 300 different studies to determine the effects of various medical techniques and drug treatments on the pain levels caused by propofol. Jalota was able to conclude that with strategic selection of the vein where the injection will be administered and the use of lidocaine (a numbing agent) as a pre-treatment, the pain from the propofol can be minimized without reducing the anesthetics effects on the patient. Thus, the studies display how the pain caused by the anesthetic can be bypassed completely without effecting the treatment itself.

For the first 30 years of its practice, electroconvulsive therapy did not include any form of numbing agent or anesthesia. As a result, it was common for patience to endure psychological trauma, bone fractures and cardiovascular complications, until 1960 when the use of anesthesia was finally introduced (Lava-Parmele, 2020). Now, it is a requirement that both a muscle relaxer and an anesthetic are administered by an anesthesiologist. These alterations to the treatment help eliminate any pain felt by the patient and help reduce movement while the procedure is taking place in order to limit any injuries caused by sudden aggressive movements. While the patient is unconscious an oxygen mask is used to help in the patient’s breathing, which is also monitored by an anesthesiologist (Fink, 1999). As such,

pain is no longer a factor in electroconvulsive therapy and can be easily eliminated without minimizing the effects of the treatment.

Memory Loss

The human brain is a very fragile organ that can be easily damaged. It is often argued by critics that the cognitive side effects that could result from electroconvulsive therapy make it a poor course of treatment. These arguments have fed into the stigma surrounding electroconvulsive therapy, its potential for memory loss and the fear that comes with that risk. According to Fink (1999), these fears are baseless, stating that memory loss issues in electroconvulsive therapy have only occurred when the patients did not receive appropriate anesthesia or were not on ventilation. The lack of oxygen to the brain resulted in memory loss, the electroconvulsive therapy itself did not cause it. Fink goes on to describe that the fear of memory loss because of electroconvulsive therapy is an outdated notion that has been consistently pushed on to the general public by the media in the fictional settings of movies and TV shows. The modern practice of electroconvulsive therapy has shown that when the treatment is administered by qualified personnel, patients are able to function normally during the treatment period and are able to return to their day-to-day lives after the treatment.

Although the theories that electroconvulsive therapy can result in memory loss have been debunked, there are exceptions. A patient's mental and physical wellbeing are factors that must be considered before moving forward with this treatment as both can put a patient at risk of memory loss. To combat this, Kronsell, et al. (2019) conducted a study to observe the effects of the electrical dosage administered on cognitive skills of patients who were at risk of memory loss. The study was conducted on 154 participants with depression of ages ranging from 19 to 55. Over the course of six-months, 57 participants received a high electrical dosage (472 milli-Coulombs), and 97 participants received a low electrical dosage (300 milli-Coulombs). By the end of the study, only 25 out of the 154 participants reported minimal effects on their memory. Additionally, both groups showed standard results in the effect of the electroconvulsive therapy on their depression. This shows how memory loss is

not a significant risk of electroconvulsive therapy and that earlier literature published on the matter is outdated. With appropriate dosage management, even those at risk for memory loss can receive treatment with minimal to no side effects.

Conclusion

Psychiatric disorders are common in people of all ages and backgrounds, and each individual has a right to access any and all treatment methods. More specifically, a patient's treatment and progress should not be mitigated by an inability to access qualified electroconvulsive therapy personnel as a result of outdated and inaccurate beliefs regarding the subject. Countless studies have shown that electroconvulsive therapy has an outstanding success rate when treating all sorts of psychiatric disorders regardless of age, genders, or background. Electroconvulsive therapy has shown to be more effective compared to typical drug treatments and has shown considerable results in drug resistant patients. With the unfortunate risks for self-inflicted bodily harm that come with some psychiatric disorders, the need for effective treatments has never been so imperative, in order to not only improve a patient's quality of life but to possibly save it.

Unfortunately, there are critics who argue that electroconvulsive therapy is an unethical practice and that its drawbacks far outweigh its benefits. Many people argue that when physicians are poorly informing patients of the details of the treatment when obtaining consent as they do not mention the theories that its results are due to a possible placebo effect. In addition, electroconvulsive therapy is criticized by its potential to cause pain while administrating a burning anesthetic and during the procedure itself as well as the risk of memory loss as a result of the treatment.

Currently, the risks of pain and memory loss previously associated with electroconvulsive therapy have been managed. Indeed, in most cases, they have been completely eliminated by the modifications made to the procedure over time. Moreover, the earlier literature published on the matter is now considered outdated considering the

alterations made to the treatment. Additionally, it can be concluded that there is no significant evidence supporting the theory regarding electroconvulsive therapy being a placebo and that information given to patients considering electroconvulsive therapy always abides by current clinical guidelines. The importance of this topic cannot be over emphasized. With the endless sea of people across the world who struggle with psychiatric issues, it is important to recognize that any and all treatment methods are acceptable if it is effective. Considering the points made above, electroconvulsive therapy should be made readily available around the world to provide access to as many people as possible.

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