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Electroconvulsive therapy : a brief overview

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Electroconvulsive therapy : a brief overview

Abstract

Electroconvulsive therapy (ECT) has been increasing in popularity for treating various types of mental health disorders. Although a notably controversial medical procedure, ECT continues to be an option when intense therapy and psychopharmacology fails. This research project will review the recent literature on ECT and provide useful information specific to mental health professionals. A definition, administration procedures, effectiveness, side effects, and specific disorders that have been targeted and most and least receptive for ECT treatment will be the focus of attention

ELECTROCONVULSIVE THERAPY: A BRIEF OVERVIEW

A Research Paper

Presented to

The Department of Educational Leadership, Counseling,
and Postsecondary Education
University of Northern Iowa

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

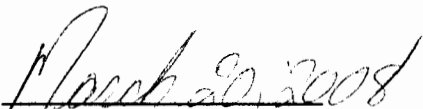
Adam A. Saucedo

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This Research Paper by: Adam A. Saucedo

Entitled: ELECTROCONVULSIVE THERAPY: A BRIEF OVERVIEW

has been approved as meeting the research paper requirements for the Degree of
Master of Arts



Date Approved

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Adviser/Director of Research Paper

3-31-08

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Abstract

Electroconvulsive therapy (ECT) has been increasing in popularity for treating various types of mental health disorders. Although a notably controversial medical procedure, ECT continues to be an option when intense therapy and psychopharmacology fails. This research project will review the recent literature on ECT and provide useful information specific to mental health professionals. A definition, administration procedures, effectiveness, side effects, and specific disorders that have been targeted and most and least receptive for ECT treatment will be the focus of attention.

Electroconvulsive Therapy: A Brief Overview

“Electroconvulsive therapy is a medical treatment for severe mental illness in which a small, carefully controlled amount of electricity is introduced into the brain. This electrical stimulation, used in conjunction with anesthesia and muscle relaxant medications, produces a mild generalized seizure or convulsion.”

(<http://www.answers.com/topic/electroconvulsive-therapy>). ECT has become more widely used by individuals due to the progressions made throughout the recent years. The improved technology and reported results versus the side effects are enticing to individuals suffering from various disorders (Hermann, *et al* 2003).

Administration Procedures

A study conducted by Hermann, *et al.* (2003) described the administration of ECT. He reports prior to the placement of electrodes being placed on the scalp to facilitate an electric current to the frontal cortex, anesthesia and muscle relaxant are injected intravenously. According to Meldrum, (1986) ECT can be administered both unilaterally, (with one electrode placed on the temple of the dominant hemisphere and one on the top of the head), or bilaterally, (with both electrodes placed on both temples). The electrical current lasts approximately one to two seconds and is repeated until threshold, or provoked seizure. The older the individual, the more electricity is needed to provoke seizures. Hermann *et al* (2003) reports during ECT treatments the seizure lasts approximately one minute and are administered three times a week for approximately one month. The amount of treatments vary depending on the

effectiveness and range from six to twelve. It is recommended that medication is continued post ECT treatment to reduce the opportunity for relapse. According to Dr. Sarah Lisenby, new evidence suggests that modern ECT promotes cell growth (Dukakis & Tye, 2006).

Effectiveness

McCall (2001) reported findings that support the effectiveness of ECT with patients who were non-responsive to other types of less intensive therapeutic interventions, such as therapy and the use of psychopharmacology. According to Thompson, Weiner, and Myers (1994) the effectiveness of ECT may fall short, even for those who continue medication post ECT treatment.

Researchers have also noted that no study addresses the effectiveness of ECT after four weeks of treatment. (American Psychiatric Association, 2004).

Side Effects

The most frequently reported side effect is some form of amnesia, usually occurring days or even weeks prior and or after the administration of ECT. Reports of recalling memories exist among participants (Salzman, 1998). Other side effects include nausea, headaches, and confusion usually immediately proceeding ECT administration. Adverse side effects occur primarily if the staff are poorly trained, eliciting a poorly trained administration of ECT, as well as the misuse of medical equipment (Thompson, Weiner, & Myers, 1994).

Disorders Most and Least Receptive to ECT

During an Interview with Kitty Dukakis, Larry Tye (2006) reports that ECT is most effective with individuals who are experiencing severe depression due to

a chemical or biological imbalance accompanied by a form of psychosis, mania, bipolar, schizophrenia, epilepsy and Parkinson's. He also states that ECT is considered in many cases to be the "last resort" for many individuals experiencing a mental health disorder (Dukakis & Tye, 2006). Weiner and Coffey (1993) also indicate that it individuals who suffer from severe depression, mania episode that are effectively unresponsive to psychotropic medications and schizophrenic patients with psychosis may consider benefiting from ECT. Tye goes on to report that ECT is ineffective with Obsessive-Compulsive Disorder, Substance Abuse, Anxiety, Adjustment Disorder, or mild or situational Depression (2006).

Conclusion

Although still viewed by many as a controversial treatment, studies have shown it to benefit the lives of many people. It is recommended that the side effects be taken into account prior to considering this type of treatment. ECT is also considered to be a last resort treatment when all else fails.

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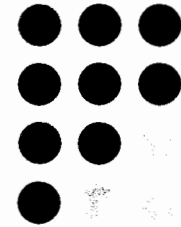
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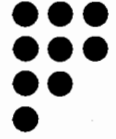
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Electroconvulsive Therapy: A Brief Overview

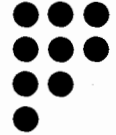
Presented by Adam Saucedo
University of Northern Iowa





Introduction

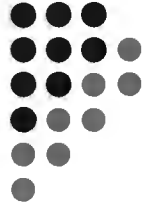
Electroconvulsive therapy (ECT) has been increasing in popularity for treating various types of mental health disorders. Although a notably controversial medical procedure, ECT continues to be an option when intense therapy and psychopharmacology fails. This research project will review the recent literature on ECT and provide useful information specific to mental health professionals.



Definition

“Electroconvulsive therapy is a medical treatment for severe mental illness in which a small, carefully controlled amount of electricity is introduced into the brain. This electrical stimulation, used in conjunction with anesthesia and muscle relaxant medications, produces a mild generalized seizure or convulsion.”

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Administration Procedures

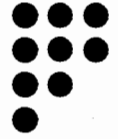
- The administration of ECT involves the placement of electrodes being placed on the scalp to facilitate an electric current to the frontal cortex, anesthesia and muscle relaxant are injected intravenously. ECT can be administered both unilaterally, or bilaterally. Meldrum, (1986)

Right Unilateral Placement



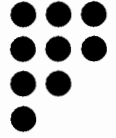
Bilateral Placement





Administration Procedures continued

- The electrical current lasts approximately one to two seconds and is repeated until threshold, or provoked seizure. The older the individual, the more electricity is needed to provoke seizures.
- The seizure lasts approximately one minute and are administered three times a week for approximately one month. The amount of treatments vary depending on the effectiveness and range from six to twelve.



Effectiveness

- McCall (2001) reported findings that support the effectiveness of ECT with patients who were nonresponsive to other types of less intensive therapeutic interventions.
- The effectiveness of ECT is falls short, even for those who continue medication post ECT treatment (Thompson, Weiner, & Myers, 1994).
- Researchers have also noted that no study addresses the effectiveness of ECT after four weeks of treatment. (American Psychiatric Association, 2004).



Side Effects

The most frequently reported side effects are:

Some form of amnesia, usually occurring days or even weeks prior and or after the administration of ECT.

Nausea

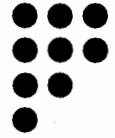
Headaches

Confusion

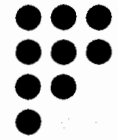
Soreness

All of which occur usually immediately proceeding the ECT administration.

Disorders most receptive to ECT



- Severe depression, specifically when accompanied by psychosis.
- Mania, specifically when unresponsive to psychotropic medications.
- Schizophrenia, specifically when symptoms are severe or medications aren't sufficient
- Parkinsons Disease



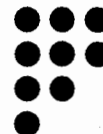
Disorders least receptive to ECT

- Obsessive-Compulsive Disorder
- Substance Abuse
- Anxiety
- Adjustment Disorder
- Mild or Situational depression

Dukakis & Tye (2006)

Questions?





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