

Shorter, Edward and Healy, David. (2007). Shock Therapy: A History of Electroconvulsive Treatment in Mental Health. New Brunswick, NJ: Rutgers University Press. Reviewed by Stephen M. Marson, Ph.D. ACSW Editor

As a result of preparing a book review of Ottosson and Fink's *Ethics in Electroconvulsive Therapy* (published in the Journal of Social Work Values and Ethics, Volume 5, Number 3), I felt compelled to also complete an analysis of *Shock Therapy: A History of Electroconvulsive Treatment in Mental Health*. My compulsion to read this scholarly work emerged from ethical principles. For decades, I was one of the people who condemned the employment of Electroconvulsive Therapy (ECT). I believed that I had an in-depth knowledge, but in fact, did not. Now, I feel that my action regarding ECT is a violation of NASW Standard 1.04 Competence (a):

Social workers should provide services and represent themselves as competent only within the boundaries of their education, training, license, certification, consultation received, supervised experience, or other relevant professional experience.

I can only gain comfort from the fact that I am part of a long list of professionals who condemned the employment of ECT without completing the prerequisite study and analysis. The sad fact is, because of the systematic rejection of ECT by psychiatrists, psychologists and clinical social workers, thousands of needy clients were denied an opportunity to have their emotional distress resolved. This review serves as my apology to leaders of the ECT movement and my effort to spread the word within the clinical social work community.

Shock Therapy: A History of Electroconvulsive Treatment in Mental Health is an important document, because it lays out the groundwork for understanding how misinformation can successfully emerge in the scientific and applied communities. Thus, it is not just a story of ECT, but provides insight into the historical dynamics of a wide variety of controversial but critically important scientific findings.

How does the history of ECT begin? "Strange" is the best adjective to summarize the constant theme of ECT history. As ECT was slowly unfolding into a meaningful therapeutic strategy, I found the interactions among the scientists reminiscent of the interactions I can recall as an average day in high school. We see personal attacks, petty jealousies, and efforts to sabotage one's work to make another person look better. As we look back into history, we can easily identify

these interactions as immaturity. However, I fear that I have seen the same pattern in contemporary university life. The groundwork for contempt for ECT lies in its early history.

Besides the dimension of personal immaturity, ECT found opposition among the followers of psychoanalytic theory (if Freud was right, ECT must be wrong), the pharmaceutical treatment (a drug conspiracy?), and the general public who saw films like *The Snake Pit* and *One Flew Over the Cuckoo's Nest*. Sadly, even professionals who should know better succumbed to the inaccurate influence of Hollywood's portrayal of ECT. This pattern of objection led news reporters (including some scientific reporters) to fail to include the positive aspects of ECT within their writings. The momentum against ECT was like a snowball rolling down a mountain.

Some of the commentary began quite rudely. On page 251, the authors describe a presentation on ECT by Max Fink, MD, in Munich. One of the attendees is quoted as saying, "As a Jew, how could you support such a NAZI treatment?" I wish the authors would have included Dr. Fink's reply. In my mind's eye, if "only Nixon could go to China," then only Fink could alter the perception of ECT. Apparently, the comment was articulated with such contempt, the host had to step in and demand courtesy. As a consequence, Fink may not have had the opportunity to reply – too bad.

Evidence-based or empirically based medicine carries some of the burden in at least two ways. First, everyone who has completed a basic course in statistics will immediately recognize that if data is analyzed enough times, statistical significance will emerge. Scientists protect the public against type I errors by employing a predetermined or newly constructed theory to explain the statistical inference. Constructing a theory or employing an established theory in an ex post facto manner raises scientific creditability issues. Here lies the major scientific problem with ECT. Theories for the success of ECT were constructed only after patterns of success were determined. The sad fact is, even with all the success demonstrated with ECT, there is no adequate scientific theory to explain how and why clients can be successfully treated.

Second, this ex post facto process between empiricism and theory is the hallmark of discovering the linkage between cancer and smoking. The huge difference between smoking/cancer manuscripts and ECT manuscripts is graphic illustrations. In the work of Shorter & Healy and Ottosson & Fink, most of the data is presented in the form of percentages, but there is not a single graphic to illustrate a comparison between ECT and an alternative. Within smoking/cancer reports, graphic illustrations were the mainstay of the documentation. A graphic

can clarify in a manner that merely listing percentages cannot. Research clearly demonstrates that graphic illustrations clarify a position. Proponents of ECT need to employ more graphics.

The best illustration of a problem of ex post facto theory construction in ECT is memory loss. Complaints regarding memory loss are statistically ambiguous. The disorders that are treated by ECT (i.e., depression) could just as easily cause memory loss with or without ECT. Then, of course, there is the interaction effect – the combination of the disorder and the treatment could cause the memory loss. The impact of ECT cannot be viewed within a simple bivariate model. If a robust theory existed, assessment of interactional effects could be controlled, meaningful research questions would emerge, and practitioners would have guidance in addressing the possible side effects.

The most unsavory aspect of ECT history is the Machiavellian tactics employed to suppress it. Empirical findings have been usurped by hidden agendas, political prestige, and a wide range of tactics that have weak scientific support. The title of the last chapter sums it up— “Irrational Science.” Problematically, ECT is founded on affirmative and consistent empirical support that is theoretically barren. Thus, public and professional confidence in ECT can only emerge with a sound theoretical framework. The future of ECT lies in the hands of neuropsychologists and biological psychiatrists who are able to produce a theory that explains nearly 100 years of data.