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A Teaching Guide for Electroconvulsive Therapy

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Concern has been raised regarding the erratic and sometimes less than adequate teaching of electroconvulsive therapy (ECT) to health professionals. The development of standardized curricula will ultimately improve the quality of care for patients receiving ECT and help to minimize the myths and misinformation clinicians have regarding ECT. An outline for teaching ECT is presented that covers the following areas: preconceptions, history, patient selection, conditions of increased risk, medical and neurological side effects, memory issues, technical aspects, electrode placement, clinical problems, management of the post-ECT course, legal and ethical issues, mechanisms of action, and educational issues. This outline can be expanded to encompass up to a 6-hour course for psychiatric residents, or compressed to provide the basics to nursing, medical, or pharmacy students.

SIXTY YEARS AFTER its introduction into psychiatric practice, training in electroconvulsive therapy (ECT) is often minimal and standards are lacking. Raskin[1] was critical of the educational activities in psychiatric training programs in 1984 based on a survey of their clinical and treatment techniques. Of the 42 programs responding, five indicated that ECT was not used in their programs at all. No attempt was made to ascertain the didactic material being taught to the trainees. An editorial by Fink[2] commented on the increasing technology needed to administer ECT at today's standard. He concluded that current teaching programs are often deficient in conveying up-to-date ECT skills and knowledge to residents. He recommended that the American Psychiatric Association (APA) should examine training practices in medical schools and residency programs.

A 1989 survey of residents in Philadelphia[3] confirmed an inadequate level of knowledge for many of the residents and significant gaps in residency training with regard to ECT. Although most of the residents possessed a positive attitude toward ECT, only two of 29 residents surveyed reported confidence in their own ability to administer ECT. They conclude that current training in ECT often fails to meet clear educational objectives.

The recent APA Task Force on ECT[4] deplored the fact that the "present training in ECT in many residency programs ranges from marginal to totally absent" (p. 116). They recommend a minimal amount of training in ECT for medical students, psychiatric residents, anesthesiologists, and nursing students. The training recommendations consist of general and specific didactic information, as well as videotapes, observation, and "hands-on" experience. Medical students should receive at least 1 hour of training. Residency programs should develop adequate curricula and solicit outside practitioners if existing faculty are not sufficiently versed in ECT. A minimum of 4 hours formal didactic instruction is suggested. Videotapes may be a helpful adjunct in training but should not be relied on exclusively, because the interchange between the resident and the instructor is important. The didactic instruction should be supplemented with an intensive practical training experience supervised by a well-qualified practitioner. These are minimum requirements that should be exceeded when possible. The recommendations, however, are voluntary.

Two years after these recommendations, Fink and Abrams[5] critiqued the inadequate training for ECT in the United States. It was found that few medical schools or residency training centers met

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the minimum guidelines suggested by the APA Task Force. They criticized the fact that little is asked on the American Board of Psychiatry and Neurology (ABPN) examination regarding ECT, and called upon the APA and the Accreditation Council for Graduate Medical Education (ACGME) to establish and monitor standards for ECT training for residents.

Deficiencies in ECT education are not confined to the United States. Concern has been raised regarding the quality and consistency of ECT teaching to psychiatrists in training in Great Britain. Responding to severe criticism by the Royal College of Psychiatry about the wide variability in training and treatment standards in Great Britain, the editor of *The Lancet*[6] warned that "If ECT is ever legislated against or falls into disuse it will not be because it is an ineffective or dangerous treatment; it will be because psychiatrists have failed to supervise or monitor its use adequately." A recent audit of ECT facilities in Great Britain continued to find serious deficiencies in training, including half of the trainees' being unsupervised by an experienced psychiatrist the first time they performed ECT.[7,8]

A Canadian survey[9] of senior psychiatric residents revealed that only half of the respondents received more than 2 hours of formal didactic lecture on ECT. Only half of the respondents had observed more than 10 treatments, and 3.8% had never observed a treatment. ECT was never administered by 19.6% of the respondents. Nearly half of the respondents who had administered ECT did so without the attending psychiatrist present for direct supervision.

The reasons for this teaching deficit may be quite varied. There are many different activities and learning experiences vying for the resident's attention—there is so much to teach and so little time. If the existing faculty have not been adequately trained in ECT, they often will not view this as important to pass on to current residents. The faculty may have negative stereotypes and prejudices regarding ECT. There may be no available faculty to teach such a course.

On the other hand, Bolwig[10] reported that as part of the training of psychiatrists in Denmark, they are required to receive training from a senior psychiatrist in charge of ECT at a university or university-affiliated hospital. They receive a certificate after 25 such sessions.

Froimson et al.[11] discuss the need for increased ECT knowledge by nurses to effectively care for patients today.

TRAINING STUDIES

Reports of the effects of training are few. Benbow[12] reported a positive effect of training on ECT administration in housestaff following a training period consisting of viewing a videotape on ECT followed by discussion. Szuba et al.[13] concluded that intensive education about ECT improves the attitudes and knowledge of residents and medical students.

Attempts have been made to compensate for this deficiency on a postresidency level. Several universities have begun to offer ECT courses on a regular basis for physicians and nurses. Courses have been appearing with increased regularity in medical meetings, but these courses are aimed primarily at those already in practice—we cannot rely on medical meetings for basic education. Jackson[14] notes that industry-sponsored symposiums at psychiatric meetings extensively educate us about drug treatment. The same does not exist for ECT, which is only mentioned "parenthetically," if at all. It is the intention of this article to present a basic outline that, with the aid of selected references, faculty can use to formalize and structure an ECT teaching program.

EXPLANATION OF DIDACTIC MODEL

Several books and journal articles are listed in Appendix 1 that can be used by the seminar leader as a reference source for up-to-date information on ECT to help prepare the lecture material. These are also useful reading materials for psychiatric residents interested in learning more about ECT.

Appendix 2 contains a condensed sample outline to aid in its use by others. It has evolved over the past 20 years in teaching ECT to different disciplines. Usually, this is given during PGY1 or PGY2, which correspond to time on the inpatient service.

The outline encompasses the areas that should be mentioned at least briefly in a didactic overview of ECT. Different areas can be emphasized for different audiences such as medical students, nursing students, pharmacy students, medical residents, or psychiatric residents. The material that a psychiatric resident should know upon graduation would require approximately 6 hours to present. The bare minimum for a psychiatric resident could be covered in 3 hours, with supplementary material in the