

This article accounts how transorbital lobotomy came to be offered to patients at Eastern State Hospital in Williamsburg, Virginia. It is intended to recapture a paradoxical moment in the history of psychiatric nursing. The period after World War II was characterized by the development

of "shock" reinforced psychodynamic theory. That gave rise to the development of short-term psychotherapy, a more practical approach than classical deep psychotherapy in hospital practice. Psychotherapeutic "talking cures" developed around a wide range of theories of human existence, from behaviorism in the United States to existentialism, principally in Europe. Evidence accumulated, however, that psychotherapy did little to resolve psychiatric symptoms.

On the other hand, somatic techniques were developed in Europe in the 1930s that were tried, rapidly and uncritically, both abroad and in the United States. Among these, insulin coma therapy was the first to modify mental status and relieve the patient of psychiatric symptoms.

A Viennese physician, Manfred Sakel, first reported his results in 1933. He accidentally overdosed a diabetic drug addict on insulin, and when she recovered, her craving for morphine had subsided. He continued his investigation with other drug addicts, and extended his range to schizophrenic patients on the evidence that insulin coma modified mental status.

Convulsive Therapy

Convulsive therapy, both metrazol and electric, was based on the empirical observation that epilepsy and schizophrenia were incompatible diseases, a theory subsequently disproven.

The Hungarian psychiatrist Joseph von Meduna induced seizures by injecting patients with metrazol. Metrazol convulsive therapy ran a short course of acceptance in American hospitals. The results were equivocal and the risks were great.

The physicians at Eastern State Hospital abandoned the use of metrazol after a clinical trial of 25 patients. The Medical Superintendent concluded, "I am convinced that Metrazol is a hazardous form of treatment and is harmful in the majority

'Desperate times' in psychosis treatment

Transorbital Lobotomy at Eastern State Hospital

(1951-1954)

Janet Colaizzi, PhD, RN

of psychodynamic and somatic psychiatric treatments, most of which were nursing intensive and carried out in psychiatric hospitals, both public and private.

The recognition that psychotherapy improved what was then called "shell

Janet Colaizzi, PhD, RN, is psychiatric nurse and historian, Eastern State Hospital, Williamsburg, Virginia.

Address correspondence to Janet Colaizzi, PhD, RN, Eastern State Hospital, 4601 Ironbound Rd., Box 8791, Williamsburg, VA 23187-8791.

cases" (Brown, 1939).

Ugo Cerletti and Lucio Bini of Italy developed electroconvulsive therapy (ECT) also based on empirical observations of epileptic patients. They reported their technique and early results in 1939. Cerletti hypothesized that the improvement in mental status was caused by the production of some substance in the blood during the stress of the grand mal seizure. That the electroconvulsive technique modified mental status, however, was unequivocal.

By 1940, all these somatic treatments were in use in public and private mental hospitals in the United States (Kolb & Vogel, 1942). This was a desperate time, and any new treatment that offered any chance of improvement, however remote, was given a try. American psychiatric practice was not so constrained by legislative considerations, and the decision to try new therapeutic interventions was largely a matter of institutional ethics.

The search for both a somatic and a dynamic intervention to modify the psychotic process had never been abandoned since the days of the moral treatment. Up to this point, every hope had come to disappointment; now, two techniques had been developed that clearly improved psychiatric symptoms.

Pre-Frontal Lobotomy

Pre-frontal lobotomy was developed by Egas Moniz in Portugal and was performed on the first human in 1935. Moniz performed 20 additional lobotomies within the year and published his results immediately (Moniz, 1936). Having published his results so promptly, Moniz's monograph lacks the clinical and scientific data that would be required today.

He reported that the 20 patients were "improved," or in the case of six, "unchanged." He did not present any clinical evidence nor did he suggest that any of the patients had been harmed by the operation. Nevertheless, Moniz published in six countries in 1936 alone, and

he continued to operate and publish throughout 1937. Moniz used the term "psychosurgery" in the first published results in 1936.

Walter Freeman and James Watts, a neurologist and a neurosurgeon in practice in Washington, DC, were the first to perform psychosurgery in the United States. Freeman read Moniz's monograph and shared it with Watts. Moniz's theoretical basis for the technique was consistent with the state of neuroscientific knowledge at the time.

The lack of outcome data in the monograph did not deter them from try-

This was a desperate time, and any new treatment that offered any chance of improvement, however remote, was given a try.

ing the operation in September 1936. Like Moniz, Freeman hastened to report the operation at medical society meetings and in the professional journals. However, Freeman and Watts followed each patient over the long term and reported their results in 1942 and again in 1950 (Freeman & Watts, 1942, 1950).

In 1945, Freeman developed a simplified procedure that did not require a scalp incision or burr holes. The frontal lobes were accessed by driving a trocar through the superior bony orbit, and then an ice pick was inserted to sever the frontal lobes.

Freeman and Watts disagreed over the procedure and eventually ended their partnership. Although Freeman regarded transorbital lobotomy a simple office

procedure for psychiatrists, Watts regarded any brain surgery as "a major operation and should remain in the hands of the neurological surgeon" (Freeman & Watts, 1950).

Freeman had developed a mission. He traveled in the United States and abroad, lecturing and conducting clinics. He clearly had become convinced, on the basis of his own style of data collection, that transorbital lobotomy was the panacea for psychosis.

Lobotomy at Eastern State

Freeman initiated contact with the medical superintendent of Eastern State Hospital, Grenville Jones, MD, in 1950. Along with the medical superintendent of Western State Hospital in Staunton, VA, James Pettis, MD, they approached the Virginia State Hospital Commissioner, Joseph Barrett, MD, with a plan for Freeman to train psychiatrists in both hospitals to perform the operation (Jones, 1950).

Freeman first came to Eastern State Hospital to demonstrate the surgery in November 1951. Between November 15, 1951, and November 9, 1954, 185 patients underwent transorbital lobotomy. These were patients who had exhausted what therapy was available and to whom little else could be offered.

Both insulin coma therapy and electroshock therapy were standard practice at Eastern State, although both were nursing intensive and placed a great strain on the sparse nursing staff (A. Waddle, RN, personal communication, March 2, 1994).

Patients were selected by a Lobotomy Committee composed of physicians, psychologists, and social workers. The composition of the committee varied over time.

When available, families were included in the decision making. The attending physicians composed letters explaining the uncertainty of the procedure.

The consent process, at least for the family, was clearly informed. No evi-

dence suggests that the patient had any part in giving consent.

The patients

All candidates for lobotomy at Eastern State had had many courses of both insulin coma therapy and ECT. Although by this time Freeman advocated psychosurgery as an aggressive first, or at least early, treatment for psychosis, only patients for whom all else had been tried were considered.

One patient, for example, had had 147 ECTs; another had had "Electro 50+ Insulin 50+." The age range was 13 to 70, with no particular age group over-represented. According to the Eastern State Hospital Lobotomy Records, 1951-1955, there were 115 females and 68 males.

Adolescent lobotomy recipient

One of the most interesting cases was the youngest patient, a boy of 13. He had been psychiatrically ill since the age of 11. His treatment in various hospitals included all that could have been offered from a somatic, psychodynamic, and behavioral standpoint.

He had had a seizure following a craniotomy for a ventricular cyst at Duke University Hospital, so he was not considered a candidate for ECT. He had, however, been treated with every other modality available at the time, including carbon dioxide inhalation therapy and 59 insulin comas, all to no avail.

Most of the time he lay in the fetal position, rocking and moaning; several times over the course of the illness, his condition became so precarious from refusal to eat that he was transferred to the medical unit and tube fed.

Freeman examined the patient and recommended lobotomy, but a year passed while the attending psychiatrist and the Lobotomy Committee considered the decision and tried other psychodynamic and behavioral approaches. When the decision finally was made, his condition had deteriorated to the extent that lobotomy appeared the only alternative.

The immediate results of the lobotomy were uncertain. Instead of the hoped-for improvement, his behavior changed little during the immediate postoperative period. He soon began to sink into catatonia again. Finally, in desperation and despite the perceived risk, he was given a course of ECT, and made a remarkable improvement thereafter.

He eventually was able to help in the dining room and attend Matthew Whaley School accompanied by a Gray

Freeman had developed a mission; he was convinced that transorbital lobotomy was the panacea for psychosis.

Lady (hospital volunteer). He was discharged "improved" in July 1956, 4 years after the onset of the illness, 3 years after his admission to Eastern State, and 2 years after lobotomy.

We have little evidence of the outcome for most of the patients. Of the 185, 56 were discharged, but most of these eventually were readmitted. Only two patients died within 24 hours of the surgery; a 19-year-old male of hemorrhage and a 59-year-old female, cause unspecified. In June 1955, 121 of the patients remained in the hospital. The overall outcome for most patients was "an improved intramural adjustment" (Jones, 1955).

The onset of psychiatric pharmacology

The first two neuroleptic drugs, rauwolfia and chlorpromazine, were put to

trial at Eastern State in 1955. The medical superintendent noted cautiously that "some patients have been helped who have not previously responded to any other treatment" (Jones, 1955).

Walter Freeman performed the last transorbital lobotomies at Eastern State in November 1954. By 1956, the "new chemical treatments" had entirely displaced surgery.

Insulin coma had been abandoned, "at least for the present," ostensibly because of the nursing shortage. ECT was still in use, but at substantially decreased levels.

Medical Superintendent Dr. Jones reported in 1956:

"They [chlorpromazine and rauwolfia] have become thoroughly established in our practice and were prescribed in practically all cases in which reasonable indications existed. The result has been most impressive. Noise, disturbance and disorder have been greatly reduced on all wards . . .

"This year we did no lobotomies. This treatment . . . produces to some extent the same effects that the tranquilizing drugs produce and it was felt advisable to suspend the more radical treatment until a thorough trial of the drugs had been carried out. We . . . may discover that we cannot discard lobotomies altogether" (Jones, 1956).

Lobotomy not misused or overused

Transorbital lobotomy at Eastern State Hospital was neither misused nor overused. Clearly, it was the treatment of last resort. Based on the scientific understanding of the brain at the time, the medical staff would have been remiss if transorbital lobotomy had not been offered. The image of lobotomy as an ill-conceived, unscientific procedure used to quiet violent psychiatric patients found elsewhere in the research is not supported by the experience at Eastern State.

Whatever Walter Freeman's motives for advocating extensive use of the procedure, he was constrained by the conservative medical practice at Eastern

State. There is no evidence that he was ever at odds with the medical staff over their clinical decision making. Clearly, he was an advisor and a consultant.

Based on the number of patients who were candidates for the treatment, as well as the reason for its eventual displacement, it is reasonable to conclude that some patients were helped by transorbital lobotomy. For the majority of patients who were never discharged, Dr. Jones reported "improved behavior and a much more comfortable adjustment" (Jones, 1954).

This period of somatic treatment, while leaving a path of disappointment and a heritage of skepticism in some, nevertheless created a readiness for the psychopharmacology that has been the mainstay of psychiatric treatment for the last 40 years.

References

- Brown, G.W. (1939). *Annual report*. Williamsburg, Virginia: Eastern State Hospital.
- Freeman, W., & Watts, J. (1942). *Psychosurgery: Intelligence, emotion and social behavior following prefrontal lobotomy for mental disorders*. Springfield, Ill: Charles C. Thomas.
- Freeman, W., & Watts, J. (1950). *Psychosurgery:*

Transorbital Lobotomy	KEYPOINTS
	<i>Transorbital Lobotomy at Eastern State Hospital: 1951-1955. Colaizzi, J. Journal of Psychosocial Nursing and Mental Health Services 1996;34(12):16-19.</i>
1	Lobotomy was one of several somatic treatments for psychiatric illness developed in Europe during the 1930s, and was first performed in the United States in 1936.
2	Patients who underwent transorbital lobotomy at Eastern State Hospital were carefully chosen candidates who had exhausted psychiatric treatment options and for whom little else could be offered.
3	Transorbital lobotomy was displaced in 1955 by rauwolfia and chlorpromazine; no lobotomies were performed thereafter at Eastern State Hospital.

- In the treatment of mental disorders and intractable pain* (2nd ed.). Springfield, Ill: Charles C. Thomas; ix-x.
- Jones, G.L. (1950). *Annual report*. Williamsburg, Virginia: Eastern State Hospital.
- Jones, G.L. (1954). *Annual report*. Williamsburg, Virginia: Eastern State Hospital.
- Jones, G.L. (1955). *Annual report*. Williamsburg, Virginia: Eastern State Hospital.

- Jones, G.L. (1956). *Annual report*. Williamsburg, Virginia: Eastern State Hospital.
- Kolb, L., & Vogel, V. (1942). The use of shock therapy in 305 mental hospitals. *American Journal of Psychiatry*, 99, 90-100.
- Moniz, E. (1936). Essai d'un traitement chirurgical de certaines psychoses [Essay on a surgical treatment of certain psychoses]. *Bulletin de l'Academie de Medicine*, 115, 385-392.