

A Book Review of the Lobotomist: A Maverick Medical Genius and His Tragic Quest to Rid the World of Mental Illness by Jack El-Hai

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Abstract

Review of book: Jack El-Hai, *The Lobotomist: A Maverick Medical Genius and His Tragic Quest to Rid the World of Mental Illness*. Hoboken, NJ: J. Wiley, 2005, 362 pp. ISBN: 0470098309 (ISBN13: 9780470098301): Reviewed by H. Alghzawi. The author of this book, Jack El-Hai, explores one of the darkest chapters of American medicine when Walter Freeman, M.D. attempted to treat the hundreds of thousands of psychiatric patients in need of help during the middle decades of the twentieth century. Walter Freeman claimed that lobotomy, a brain operation, reduces the severity of psychotic symptoms.

Keywords

Lobotomist, Lobotomy, Mental Illness, Book Review, Psychosurgery

1. Introduction

The medical journalist, Jack El-Hai, wrote about the life of Dr. Walter Jackson Freeman (1895-1972) (El-Hai, 2005). Freeman was a neurologist and psychiatrist who, with his neurologist colleague, James Watts, introduced leucotomy into the United States (El-Hai, 2005). In *The Lobotomist*, El-Hai described the dynamics of Freeman's family, which helped to shape his future (El-Hai, 2005). Freeman was a child with six siblings of two separated parents. He lived apart from his family and according to El-Hai, he was a loner as a child. Freeman's father was a physician, and his grandfather, William Williams Keen, was a well-known Philadelphia surgeon who treated and advised several American presidents. Freeman's grandfather was his greatest personal and professional influential relative (El-Hai, 2005).

2. The Scientific Discovery of Lobotomy

A lobotomy is a neurosurgical procedure that involves cutting away most of the connection to and from the prefrontal cortex in the brain. The first systematic attempt at human psychosurgery, performed in the 1880s-1890s, was attributed to the Swiss psychiatrist Gottlieb Burckhardt (Dominik & Gereon, 2011). Burckhardt's experimental surgical endeavors were condemned at that time and in subsequent decades psychosurgery was attempted intermittently.

In 1936, a new psychosurgery procedure was performed in Portugal by the neurologist Egas Moniz. His procedure, "leucotomy", took small corings of the patient's frontal lobes. Moniz's results, that is, one-third of his patients were cured of their agitated depressive symptoms, appealed to Freeman. In the same year, Freeman and Watts performed their first prefrontal lobotomy; however, instead of only taking corings from the frontal lobe Freeman severed the connection between the frontal lobe and the thalamus (El-Hai, 2005).

In 1946, ten years after his first lobotomy, Freeman developed the procedure to become a transorbital lobotomy. In this operation, Freeman used electroconvulsive therapy instead of anesthesia. He then pushed an ice pick blindly through the orbital plate into the frontal lobe to destroy nerve pathways. His population was "shell-shocked" soldiers returning from World War II. It was advertised as an inexpensive and portable procedure. Freeman performed it in public to demonstrate the ease of the procedure and to market its use. He performed thousands of these operations across the United States between 1946 and 1967 (El-Hai, 2005).

3. The Theoretical Underpinning of the Lobotomy

Initially, Burckhardt's experimental surgery was based on three assumptions on the nature of mental illness and its relationship to the brain. First, the belief that mental illness was organic in nature and reflected underlying brain pathology. Second, the nervous system was organized according to an associationism model comprising of an input or afferent system (a sensory center), a connecting system where information processing took place (an association center), and an output or efferent system (a motor center). Third, a modular conception of the brain existed whereby discrete mental faculties were connected to specific regions of the brain (Berrios, 1997).

Burckhardt's hypothesis was that by deliberately creating lesions in regions of the brain, identified as association centers, a transformation in behavior might ensue (Berrios, 1997). According to his model, those mentally ill might experience "excitations abnormal in quality, quantity, and intensity" in the sensory regions of the brain and this abnormal stimulation would then be transmitted to the motor regions giving rise to mental pathology (Berrios, 1997). He reasoned, however, that removing material from either of the sensory or motor zones could give rise to "grave functional disturbance" (Dominik & Gereon, 2011). Instead, by targeting the association centers and creating a "ditch" around the motor region of the temporal lobe, he hoped to break their lines of communica-

tion and thus alleviate both mental symptoms and the experience of mental distress (Berrios, 1997).

Moniz's theoretical foundations were similar to Burckhardt's in that Muniz ascribed to the psychological theory of associationism, but he differed with Burckhardt in that he did not think that there was any organic pathology in the brains of the mentally ill. He believed that neural pathways were caught in fixed and destructive circuits leading to "predominant, obsessive ideas."

Freeman read in the literature Muniz's results of his leucotomy and was impressed with the outcome more than the theory it was based upon. Freeman believed lobotomies worked because the procedure severed connections between the frontal lobes of the brain and the thalamus, thought to be the seat of human emotion, which the mentally ill apparently had in overabundance. Although his theories have been discredited, Freeman was one of the few psychiatrists of his era who believed that mental illness had a physical-biological component.

4. The Current Status of the Lobotomy

Although lobotomy was used for almost forty years, it did not stand the test of time. It was abandoned primarily because the clinical picture of the patient did not show that the procedure "cured" the patients of their illnesses. Many U.S. states had to seek approval to perform the lobotomy from a governing body while in other countries, such as Japan, Austria, and Germany, it was restricted or banned. Today psychosurgery is used as an example of medical malpractice.

The lobotomy example illustrated that discovery does not mean it will continue to be "current practice" in the future, but it may contribute to the advancement of science. As controversial as the lobotomy may have been, it opened up the psychiatric world to the idea of neurosurgery as a possible treatment for severe mental illness and contributed to the foundation that psychiatric issues often have a physiological basis. The first effective antipsychotics were used in the 1950's. Current practice is predominantly a combination of psychotropic medications and/or psychotherapy techniques to manage or resolve psychiatric and mental health issues (Alghzawi & Ghanem, 2021a; Alghzawi & Ghanem, 2021b; Alghzawi, 2018; Alghzawi, 2016a; Alghzawi, 2016b; Alghzawi, 2016c; Alghzawi et al., 2014a; Alghzawi et al., 2014b; Alghzawi et al., 2014c; Alghzawi, 2012).

5. Conclusions

The importance of this book is threefold. First, the Lobotomist, is as El-Hai claims, an account of a North American pioneer. It was Freeman who brought Egas Moniz's technique of leucotomy to North America. Initially, Freeman, working with his neurosurgical colleague James Watts, modified the leucotomy and coined the term "lobotomy". Freeman then went on to master and simplified the technique, and performed hundreds of transorbital lobotomies himself. He had a zealous belief that he had something to offer the accumulating masses of psy-

chiatric inpatients.

Second, this book is about the coming of age of treatment for psychiatric illness, documenting how psychosurgery developed as an integral part of evolving medical and societal perspectives on psychiatric illnesses and treatments. Third, this is a book about personal tragedies, both within Freeman's own family and in the public context of his eventual professional isolation.

This book encourages the reader to consider if Freeman's work was an exploitation of society's most vulnerable and desperate members and their families or if Freeman was altruistic in his attempt to provide treatment for those that had little medical recourse for their symptoms and were neglected by society.

Conflicts of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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