Good example of the lobotomy study research paper

Health & Medicine, Drugs

Psychology: Early research into prefrontal lobotomy

Introduction

Lobotomy is a psychosurgical procedure where the connections of the prefrontal cortex and underlying structures are severed, or where the frontal cortical tissues id destroyed. Lobotomy is a Greek word where lobos mean brain and tomos stands for cut. According to Raz, psychosurgery is where surgical methods are used on an anatomically normal brain with the aim of treating mental illness.

The success of lobotomy during its first years after inception has been attributed to a number of factors by historians. During the early years when lobotomy became popular, there were few effective treatments for mental illnesses. This was an issue since the number of patients with mental disorders being hospitalized in psychiatric facilities in the years of World War II was increasing. The fact that there had been many somatic therapies for psychiatric disorders in the early twentieth century such as the use of malaria therapy for syphilis involving the nervous system made the treatment much acceptable by both the general public and the physicians. This therefore, facilitated the positive reception of lobotomy treatment.

The best thing about this procedure is that it allowed the patients to go back to their old life in the community, thus, enabling hospitals to discharge patients who would have spent longer periods in the hospital wards. Those that were not well enough to be discharged, most of them had been changed through the treatment in such a way that taking care of them had become much easier as they became less violent and even more cooperative. All these results explain why lobotomy was attempted and how it could have

been a treatment of last resort. Problem is, there are a number of questions that are left unanswered like how the treatment could have received such a positive reception from the patients, their family members and even by the physicians in the early years of its inception, 1940s and 1950s, only to receive a very negative reception a few decades later.

This study picked up from the early VA research in psychiatry. The research in VA had a limited scope before World War II despite the large numbers of hospitalized neuropsychiatric patients. Work on shock therapies together with other more basic studies was being carried out in a centrally funded laboratory at the Northport (NY) VA hospital. By late 1930’s and early 1940’s there still was little evidence from the researches of having better treatments, though VA medical bulletin had reflected a thoughtful approach to psychiatric problems in the 1920’s and early 1930’s. VA had a severe shortage of psychiatrists during the World War II, when psychiatry was receiving a lot of recognition as most of the physicians and other doctors joined the military.

With this kind of setting, Richard L, Jenkins the M. D, Chief research in psychiatry and J. Quinter Holsopple, PhD, Chief research in psychology, started reviewing files of some of the 1, 500 patients in VA that had received lobotomy operations. Their conclusion was that though there was clear consensus that the treatment had benefits on the operated patients, these benefits were not reflected with equal clarity in social and economic independence, and the discharge rates. They came up with a way to have a more objective evaluation and so they stated the study on the effects of

prefrontal lobotomy. To do this, they recruited the VA Chief in research in outpatient psychiatry, Maurice Lorr (Dully & Fleming, 2007).

The study was to be carried through evaluating the clinical status of study patients before they underwent the operation and intervals after the operation. Six VA hospitals participated in the research and between 1950 and 1953, 373 patients had been enrolled for the study. 188 0f the patients receives lobotomies and 185 received controls. All the patients were reviewed before being assigned to either of the groups. Many of those that went to the control unit were those that their families refused to have them go through the lobotomy. Randomization was followed keenly and the operating surgeon chose the type of surgery he would perform. Patients were studied before they were operated and those that went with the control were studies shortly after randomization, at three months and at 1, 2, 3, 4, and 5 years after surgery or entry into the study. The Multidimensional Scale for Rating Psychiatric Patients (MSRPP) was developed by the team to evaluate the progress. Follow up, chlorpromazine and other effective drugs came up during the study and were used a lot during the treatment of schizophrenia. As time went, more of these drugs was used for treatment and at the time of three- year follow up, one-fifth of the patients evaluated were using the drugs. This usage of drug treatment made the interpretation of the lobotomy difficult. Generally, the study showed that that there was improvement on patients that had been lobotomized than those that were in control. However, by the fifth year, drug therapy had diluted the picture and the differences between the two studies had diminished. Though the results were not as expected, the research provided a template for the study of

psychopharmacology that followed through providing tools to evaluate results of psychiatric treatment (Hays, 2010).

The study was later moved to VA hospital at Perry point and Central Neuropsychiatric Research Laboratory was established (CNPRL). They had started chemotherapy studies in treating psychiatry and the firs. New drugs were coming up even before the study for lobotomy was over and the team decided to study these drugs too. None of them had proven to be a treatment for the mental disorders. Though the treatment had been practiced a lot, the origins of the first lobotomy were carried out in animals. For dogs that had large lesion in the anterior part of their brains became excited and quite apt to irritation while those that had large lesions on the occipital lobe became sweet and harmless. These results led to the first use of the treatment on humans by Gottlieb Burkhard, a physician, and one of the patients committed suicide and another died a week after the surgery. This stopped the practice of the lobotomy till 1930, when it was practiced on humans again (Mo, 2007).

The procedure was easy to perform and was mostly done by Freeman alone and this brought problems between him and his colleague Watt. As more reports showed that the treatment of lobotomy was dubious, the use of lobotomy as a treatment for mental disorders began to fall out. The clinical indications were poorly defined which meant the side effects could have been severe. It was later decided that the treatment was even worse than the disease when cases of inertia, unresponsiveness, inappropriate effects, span and dis- inhibiton became more evident. It was even clear that the process was carried out by unqualified personnel and in unsterile

environments, which increased the risks of fatal cases. Through this, it became less popular and was even made illegal in some countries (Mashour, Walker & Martuza, 2005).

Transorbital lobotomy

The freeman- watt prefrontal lobotomy still needed the drilling of holes in the scalp. Due to this, surgery had to be performed in an operating room by trained neurosurgeons. Freeman thought that the procedure could not be available to the state mental hospitals that had no operating rooms, neurosurgeons, and anesthesia, had limited funds and had many patients with mental disorders. To simplify this, he wanted the psychiatrics in these hospitals to perform the procedures themselves. Freeman later on discovered a plan where the operation would be done approaching the frontal lobes through the eye sockets instead of the process they were using of drilling holes through the skull. This new procedure, transorbital, entailed lifting of the upper eyelid and placing the point of the tin surgical blade under the eyelid, and against the top of the eye socket. They then used a mallet to drive the orbitoclast through the thin layer of bone. It was then directed to the brain and the orbitoclast was malleted five centimeters into the frontal lobes. All the cuts that were performed were aimed at transecting the white matter that connected the thalamus and the prefrontal cortex. After this was done, the leucotome was withdrown and the procedure was repeated, this time on the other side. The simplicity of this procedure is what made Freeman think that the procedure could be carried out in hospitals that

had no operating rooms. This new discovery brought about the drift between Freeman and his colleagues Watts in 1947.

Negative effects of lobotomy

The negative effects that lobotomy had on its patients were intense. Lobotomy affected the personality of the patients and their ability to function independently. The patients always showed signs of reduced ability in their inhibition and initiative. The other negative effect that lobotomy had on its patients is that they developed difficulties in putting themselves in the positions of other people as their cognition and detachment from society had decreased. All these negative effects led to the criticism of the procedure (Laz, 2013).

Criticism

The problem with the procedure that Freeman was administering is that he used ice pick-shaped instruments and performed up to twenty five surgeries in a day! As he performed these operations, he never gave the patients any anesthesia, and he did the operations in front of the reporters. On the other hand, his colleague Antonio Egas was performing good surgical processes in Europe while Freeman did a shoddy job. The operations that Freeman carried out left many of his patients more sick than they were as they turned into zombie- like creatures (Newitz, 2011). This process involved the cutting of the white and grey matter and Freeman usually gave shock treatment to the patients so they wouldn’t know what was going on.

Lobotomy was also criticized for the mechanistic brain localization assumption that used in the procedure. The transaction of the white

substance of the frontal lobes was assumed to impair the connection that they have with the thalamus, which in turn eliminated the possibility of receiving stimuli from it. This in turn led to irritation on the whole derange mental system. In fact, the Soviet made the performance of lobotomy illegal arguing that the procedure was against humanity and instead of being a treatment for mental cases; it just made the ill people idiots. This led to the banishment of the practice in many US states by 1970.

Medical procedures need time and a lot of concentration, and knowledge on what one is doing. For Freeman, the process was done without any research on whether the procedure was right for the patient or not. In the later years, the mixing of many drugs with the lobotomy study proved it hit a dead end. Many other drugs should not have been used on the lobotomized patients as they contain chemicals that altered with the results.

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