Pshycosurgery Essay, Research Paper

Introduction

One Flew Over the Cockoo s Nest presents a flashing array of images and scenes that are impossible to ignore and impossible to forget. One particular scene, where Jack Nicholson is being led to bed with a marring scar on his forehead, is among the most socially disturbing. For, we find it hard to believe that humanity had “scrambled” the brains of those who could not live within the confines of society. Nicholson s character received a pre-frontal lobotomy. No other medical procedure has been as denounced and renowned at the same time. A precursor to modern-day psychiatry, the frontal lobotomy radically changed the way we view the mind-body problem. In addition, it changed the way we viewed the mentally insane, the medical community, and more importantly: ourselves. In the height of the lobotomy, surgeons were merely playing a guessing game. The frontal-lobotomy was an evolutionary back-step and further psychosurgical guessing games can only catapult the psychological field into an age of medical animism. Psychosurgery poses serious ethical and societal implications far beyond our comprehension.

Background

Psychosurgery is characterized as a procedure designed to alter disordered mental states by removing, destroying or severing apparently healthy brain tissue (Selensick 254). It is construed in this way to distinguish it from brain surgery, where the immediate object of surgical intervention is seen as the removal or treatment of some diseased or damaged portion of the brain. A concrete example of brain surgery is the removal of a brain tumor. This procedure seeks to eliminate an abnormality in the brain tissues with little or no emphasis on psychological improvement . Few ethical questions arise when removing damaged tissues. However, the frontal lobotomy sought to change disordered behaviors through structural damages to healthy tissue in the brain. Although abstract, an obvious distinction forms when the two procedures are compared. One problem in the definition does arise when diseases such as Alzheimer s and Parkinson s are considered. No apparent anatomical abnormality exists in these diseases. Should a surgical procedure exist to correct them, they would be classified as brain surgery. This procedure would be classified thusly because it deals not with a mood, personality, or psychotic disorder. Clearly these definitions are vague and abstract and perhaps as our insight to the matter grows, our definitions will become absolute and invariable. Ultimately it is important to remember that psychosurgery seeks to change a personality, mood or psychotic disorder.

The widespread modern-day use of psychosurgery is generally considered to date from the work of a Portuguese neurologist, Dr Egas Moniz, in 1935 (Kleing 6). Although Moniz was not the first to use similar procedures, his work stimulated a world-wide interest on the topic. His first work was inspired by the tranquilizing effect on primates whose frontal lobes had been removed. At the time, Moniz knew well the expanses of literature that dealt with human deficiencies associated with lesions of the frontal lobe. Nonetheless, Moniz pushed on. With consideration to the elementary understanding of brain function at the time, Moniz cannot be blamed for his tunnel vision that characterized the psychiatric community of that time.

Initially, brain tissue was destroyed by injections of alcohol into the frontal lobe (Gray 534). Alcohol was injected to destroy the frontal lobe in a “non-intrusive” manner. Far from non-intrusive, holes were drilled into the skulls of the first patients. A four inch hypodermic needle was to be inserted into two places of the frontal lobe and the solution injected. Any other clear rational behind the use of alcohol is not known. Overall the procedure was hastily devised and hastily practiced. Surgical preparations consisted of inserting a needle into a brain from the local morgue to determine the angle and depth at which the needle would be inserted. These preparations lasted a half-hour. The first patient was a sixty-three-year-old woman suffering from anxiety and well-established paranoid ideas (Valenstein 102). Moniz called the operation a success (456), however he gave little behavioral information about the post-operative-patient. It is apparent his opinion came from a deep-rooted desire to succeed. Moniz tried the alcohol-injection procedure on several more patients, receiving only marginal results. Moniz soon resorted to more direct methods of tissue destruction.

On December 27, 1935, Moniz used the luecotome in his first frontal lobotomy. This spear-shaped device was inserted into the frontal lobes through burr holes drilled in the skull (Kalat 459). The device resembled an apple-corer and when rotated in the frontal lobe, spherical cores of brain tissue could be destroyed. Moniz performed many operations in quick succession. He reported favorable results. Soon after, his device and procedure were replicated throughout the world. Its use peaked in 1949, the year Moniz was awarded the Nobel Prize. Use of this procedure remained high until 1955, when there was a noticeable decline. It is estimated that between 1936 and 1978 some 35,000 operations were performed in the United States (Nesse 365). World-wide the figure is about double that of the US. It is important to remember that during these years the US social and political landscape was turbulent. World War II, as well as other contributing factors left many psychological casualties (Valenstein 356). Eventually, with the development of x-ray and more advanced surgical procedures, Moniz s luectome was traded in for new and more exacting operations (Sapolsky 17). The word exact is morbidly humorous. Although surgeons could better see what they were performing, the procedure itself was still haphazard as little was know of brain function.

When first developed, psychosurgery was seen largely as a therapy of desperation (Nesse 365). It was reserved for patients with chronic and long-standing disorders for which other treatments had proved ineffective. However, the enthusiasm of some of its early advocates led to an expansion of the range of conditions for which it was thought to be indicated. Apart from its employment in relation to increasingly less severe emotional disorders, it was used in attempts to relieve intractable pain, aggressive behavior, frigidity, homosexuality, nymphomania, compulsive gambling, hyprochondriasis, anorexia, asthma, obesity, drug abuse and the management of retardates (Kleinig 12). This over-use was a definite factor in the lobotomy s criticism. After 1978, the number of frontal lobotomies decreased sharply. Psychosurgery settled to small groups of researchers. However, with the development of new technologies, there has been a slight rise in interest towards the topic.

Ethical Considerations

Experiment or Therapy?

In the debate over psychosurgery, much has hinged on whether or not it is to be characterized as experimental or therapeutic. Some critics have complained that it is experimental in nature, having exposed patients to unknown and unacceptable risks. Critics contend that it is not therapeutic in nature and that it is pure ambition that drives the field. However, supporters are quick to reply that therapy relies on having an experimental dimension, as each patient is different. They accuse the critics of being ideologically motivated.

It is often said that everything a doctor does is experimental. Because each patient is different, and treatment options are so plentiful, each encounter between doctor and patient is a matching of patient with diagnosis or therapy. The doctor is being experimental in a very broad sense. Unlike psychosurgery, the doctor is applying a host of commonly employed medical procedures. A doctor who tries one therapy, and moves to another is not experimenting in the sense of employing a treatment whose outcome is unknown. Psychosurgery on the other hand, employs procedures whose general efficacy is unknown. Although some 70,000 psychosurgical procedures have been performed, we have little information in way of standard procedures and results. Part of this lacking stems from the dizzying array of techniques performed. A great deal of these 70,00 operations were nothing but random brain-scrambling . Also, these 70,000 procedures were carried out for different reasons and a wide variety of patients. Perhaps if a controlled experiment were performed, we would have a higher comprehension of the effectiveness of psychosurgery (Gray 354). This, however, is unlikely to happen. Ultimately, psychosurgery is experimental by nature. Little is known in the topic of brain functioning. Researches can do little more than name regions of the brain and associate these regions with various bodily functions. Let alone explain the mind-body relationship. Accepted medical practice may be broadly experimental, however it is difficult to compare the nature or experimentation which penicillin prescriptions hold to frontal lobotomies. Also, in defense of psychosurgery, we must remember that all of medical science was once experimental. For, without experimentation little would be known of the medical world. Still, however, the experimental nature of psychosurgery is a formidable opponent for defenders of the practice.

Sanctity of the Brain

One of the other deeper reasons behind opposition to psychosurgery is a conviction that the brain has a unique status among our bodily organs. The brain is widely believed to be the site of our self-hood and personality. Whereas the removal of a hand or foot is seen as an operation on our body, the removal of a portion of the brain is seen can be considered as an assault on our individuality. This argument comprises several distinct claims: about the relation of brain to personality; about the invasiveness of surgical penetrations of brain tissue; and of the inviolability of personality (Kleinig 70).

There is little reason to doubt that of all bodily organs, the brain is most closely involved with those functions that seem to mark us out as persons. Brain damage is closely associated with personality change. It is through the brain that we can perceive, communicate, judge, and react. An intrusion on brain tissues, it seems, would logically be an intrusion on those capacities that find life in the brain, and thus, an intrusion on the self. The self is a mysterious concept. A varying platform of ideas define the sense of “I”. Buddhism, as well as many psychologists, believe that the self is nothing more than a trick of perception. They claim the self is comprised of our perceptions and judgment and that we have fooled ourselves into believing one centralized being gathers and compiles information for us. Nihilism s rallying cry: “I think, therefore I am”, sums up these post-modern conceptions of the self. An intrusion on those thoughts would be an intrusion on one s being.

However intrusive psychosurgery may be on the self, it is important to remember that not all brain procedures inflict the self. Few will argue that the removal of a tumor leaves the post-operative patient with a different personality than before the operation. What basic distinction separates this instance from another? If the brain is the source of our self, and all intrusions are an invasion of the self, it seems these brain surgeries should be condemned by critics of psychosurgery. However, very few hold this opinion. Obviously, it is the motivation behind the operations that matters. While psychosurgery intends to change personality, a brain-tumor removal seeks only to restore good health. While brain surgery may affect personality, it is a side-affect. In actuality, any medical procedure may effect personality. Valenstein notes that many schizophrenics have experienced some remission after appendectomies (215). Also, psycho-drugs present an intrusion on the brain and personality. However, the irreversible nature of psychosurgery and distinct results in regard to personality separate it from drug-therapies and brain surgery. While brain intends to fix a damaged part of the brain, psychosurgery intends to fix a damaged personality through destruction of healthy brain tissues. Take for example, the fact that medicines with a side-effect of slight euphoria are acceptable. Narcotics, however, whose main intention is euphoria, are not acceptable. It is through these seemingly arbitrary and ambiguous social limitations that the brain surgery/psychosurgery battle finds ground.

Rationale?

One of the most perplexing features about psychosurgery has been its lack of a clear rational. Its progress has been largely determined by pragmatic considerations (Nesse 365). In a sphere of human endeavor fragmented by competing theories, nothing succeeds like the appearance of success. In the early years of psychosurgery, many psychiatrists seemed to be content with little more than that: as long as it worked, they felt no pressure to gain or provide a detailed about of its workings (Selensick 249). They recognized that different areas of the brain related with different functions, but how closely was not known. Only outcome mattered. With the benefit of hindsight, we can see the shortcomings of this approach. Although some argue that doing something is better than nothing, there were more than enough cases of failure to discourage these appeals in such an approach. In the case of an irreversible and potentially highly intrusive procedure such as psychosurgery, the need for an articulated theoretical framework is of critical importance. Still, however, we understand barely a fraction of brain functioning. Neuroanatomy and biochemistry of the brain are still in their infancy. When it comes to matching human functioning with neural activity, our knowledge is even more primitive. We are not in the position to argue with any certainty that psychosurgery is directed to the alleviation of some brain disorder. Although at present, the evidence we have regarding neural functioning is suggestive, it is far from conclusive (Kalat 567).

Supporters of psychosurgery would argue that although neural knowledge is primitive, psychosurgery does obtain results. Even though operations in the past were completed rather hastily, modern insight has provided the field with adequate knowledge to bring failure rates to an acceptable norm. Also, many of the medical treatments available today are founded on inconclusive evidence and are used merely because they produce results. According to critics, however, an irreversible procedure that already poses ethical problems should be founded on concrete theory and conclusive evidence (Kleing 95).

A Tool For Social Control?

It is as a tool for social control that psychosurgery has received the most opposition. It is alleged that it is or is likely to be used against certain people or groups to control what is seen as their social disruptivness. Pop culture may reflect dramatic perceptions of this view, but it can also be found in many political handbooks and movements.

Much of this fear stems from the anti-psychiatry movement, which believes psychiatry is a means of social control. Psychiatric classification, used to differentiate the sick from the healthy , is claimed to mirror socially dominant attitudes and values, providing a justification for the exercise of control over those who deviate significantly from them. While this view contains a mixture of truth and fantasy, it brings interesting problematic issues of psychosurgery to light. It is rather fantastic to think of psychosurgery leading the way to a new social order of the elite and the lobotomized. Radical political groups and fringe movements however, are founded on such gigantic beliefs. Nonetheless, such things must be considered because of the societal implications they hold. However, instead of imagining apocalyptic prophesies, let us consider more down-to-earth realms of this thought process.

Francis Farmer, a pop icon, who was also a member of the communist party and a suspected lesbian was lobotomized in the height of her career. Her messages, according to psychiatrists, had taken on an antisocial light. Psychosurgery is often recommended for people with antisocial tendencies. She displayed no psychotic features or severe mood disorder. The anti-psychiatry maintains that she was lobotomized because of her radical politics. Although only a few such cases exist, it seems that even one is too many. Such cases give these fantastic ideas validity on a small-scale. Psychosurgery, in the wrong hands, could destroy lives.

Effectiveness?

Most importantly is whether or not psychosurgery is effective. In absence of a concrete theoretical justification, the strongest and indeed only argument for psychosurgery is that it works. However, the question attracts opposite replies. While some of its supporters have believed it to be so successful that it should be applied to a variety of psychological disorders (Donaldson 815), its opponents have frequently argued that as therapy it has been worse than useless.

The supporters of psychosurgery claim that it works. Sometimes they cite individual cases, sometimes they point to follow-up studies. But the procedure s opponents are unmoved by these claims. The sources of disagreement are varied. Ultimately it stems from a lack of valid research on the topic. Valenstein notes that “ninety percent of the research published lacks enough factual information to constitute research”, and that, “it is surprising that these (publications) were ever published” (342).

Overall, psychosurgery has proven itself ineffective (Kalat 546). Although it may provide the ability to alleviate mental disorders, when the tremendous side-effects are taken into account, one wonders what the operation set out to alleviate. These side-effects can include: loss of free will, reasoning skills, spatial skills, motivation, creativity, speech, motor control, bodily functions, and/or: mental retardation, coma, stroke, and death (Kalat 400). These side effects stem primarily from the frontal lobotomy operations as opposed to other forms of psychosurgery. However, anytime brain tissues are destroyed, manipulated, or removed, patient risk is at very high levels. Proponents of psychosurgery contend that these side-effects are within acceptable norms. A lack of conclusive data on the subject makes it nearly impossible to discern fact from fiction.

Conclusion

The ethical implications proposed by psychosurgery can never be fully understood. Man is incapable of defining the self , for we have nothing to compare it with. It is impossible to step outside of the human experience in order to conduct concrete research. Only theories can be made on the subject. At this present state, inconclusive evidence makes theories weak. Also, one must take into consideration the basic pre-suppositions we hold when contemplating psychosurgery. The brain is sacred to humanity. We localize our thoughts, feelings and perceptions to it. Serious ethical, medical, and societal implications arise from psychosurgery. Humanity has entered a new and exotic age, we can all hope that the proper ethical considerations are had before we enter this age too fast.