

Does Impairment in the Metabolic Biochemistry of the Brain Necessitate Legal Revisions in the Actual Capabilities of Individuals Under Anti-Depressant Medication?

Suleyman Aydin *

Department of Medical Biochemistry (Firat Hormones Research Group), Faculty of Medicine, Firat University, Elazig, 23119, Turkey

*Corresponding author: Prof. Dr. Suleyman Aydin, Firat University, School of Medicine, Department of Medical Biochemistry (Firat Hormones Research Group), 23119-Elazig, Turkey, Tel: 90 5334934643; E-mail: saydin1@hotmail.com

Received Date: December 2, 2017; Accepted Date: December 2, 2017; Published Date: December 5, 2017

Copyright: © 2017 Suleyman Aydin. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Citation: Aydin S (2017) Does Impairment in the Metabolic Biochemistry of the Brain Necessitate Legal Revisions in the Actual Capabilities of Individuals Under Anti-Depressant Medication? J Metab. Vol. 1 No.1: 5.

Editorial

Weapon mass destructions (armed attacks in schools or concert halls) continue with increase worldwide [1] Avoiding these attacks by the governments effectively would reduce social concerns and improve peace and welfare. With no doubt, it is impossible to foresee the behaviors of approximately 7.6 billion people worldwide [2]. A murder is a complicated and difficult situation for both the family of the murderer and the victim.

No rational man would involve in a weapon mass attack. The brain works by transmitting chemical and electrical stimuli from one neuron to another, and forms an internal communication network [3]. Neurons include many molecules that play a role in this communication system such as serotonin, noradrenaline (norepinephrine; secreted as a response to stress and provides attention, motivation and satisfaction), dopamine, endorphin, oxytocin, vasopressin, acetylcholine (attention and stimulation), gamma aminobutyric acid (GABA) and histamine [4]. Serotonin (obsessions and compulsions), which can be produced by human body, is an indispensable neurotransmitter for the psychological balance of the body. [4]. Dopamine (playing a role in depression) is a neurotransmitter involved in the prize and pleasure center of the brain. Patients with schizophrenia are given antipsychotic drugs that block dopamine secretion [5]. As understood from the data above, impairment the transmissions between neurons (synapses) may result in destructive outcomes event they are instant (acute) or long-term (chronic) [3]. These molecules do not necessarily act perfectly all the time. When the chemical and electrical communication network in the brain is impaired, situations such as fear, concern, caution, irritation, flash-backs, feeling of being humiliated, emotional anesthesia, will of dominance, tendency to violence, displeasure, panic disorder, inability to empathize with others and impaired social relations (scopophobia) appear.

People may use anti-depressant drugs in such situations. Some of the anti-depressant drugs are easily accessed without prescription in some countries, with the suggestions of the relatives. However, depression is just like any other disease. It

should be a legal obligation to use anti-depressant drugs under the recommendation, control and follow-up of a specialist (psychiatrist). Patients using anti-depressants may quit the obsessions they had previously, and tend to deactivate the self-judgement of their behavior and attitudes against certain events (for example they can easily be a legal warrantee to somebody else) [6]. All drugs, including anti-depressants have side effects at least minimally [6].

Therefore, the question 'What the actual capabilities are of people using anti-depressants legally?' arises. Despite my brief literature research, no legal sanction defined by countries was detected in the details. To be able to have capacity to act in the front of universal laws, 1) person must be of full age, 2) have power of judgment and 3) must not be limited (such as arrested, mental disorders). In case the individuals meet this criterion, that means he/she has full capacities. If one is full age (adult), but has no power of judgment, he/she is completely incapable (for example mental disorder). If one is not adult and has no power of judgment, he/she is completely incapable (for example a child of 2 years). If one is adult and has power of judgment, but limited capacities (for example drug addict or schizophrenia), he/she has limited capability. If one has the power of judgment has no limitation, but is not adult, he/she has limited capability legally again [7]. Therefore, here It has been suggested when the items of the legislation are considered together that, when individuals with impaired brain function use anti-depressants to improve the biochemistry of the brain, they should be evaluated for actual capabilities [8]. Because an adult may have limitations (such as anti-depressant usage) and his/her power of judgment may be impaired or disappeared at all related to the medication. It has been proposed that when law-makers consider this situation, a fairer environment will be provided for the judgement of individuals.

The chemistry of the brain is responsible for the movement, speaking, thinking, distinguishing and coordinating abilities of the body via molecules that play role in inter-neural transmission such as dopamine, serotonin and GABA epinephrine [3-5, 8]. Here It has been therefore suggested that if countries define a map of cerebral biochemistry including

normal distribution of these molecules for each individual, and keep these data in a database to analyze them with certain intervals (6 months, 1 year, or other defined intervals), deviations of these molecules from normal status would give important data to treat the individuals before possible weapon mass attacks. Because a healthy brain would never attempt a weapon mass attack. Furthermore, it has been suggested that legal situations of people under medication of anti-depressants due to impaired cerebral biochemistry are emergent problems to be considered worldwide. It has been also suggested that antidepressants and law courses should be put into curriculum programs of medical and law faculties for judgement of people who use antidepressant drugs at worldwide.

References

1. Hanera M, Leeb H (2017) Placing School Victimization in a Global Context. *Victims & Offenders* 12: 845–867.
2. <http://www.worldometers.info/world-population/>
3. <http://www.cerebromente.org.br/n12/fundamentos/neurotransmissores/neurotransmitters2.html>
4. Bodnar RJ (2013) Endogenous opiates and behavior:2012. *Peptides* 50: 55-95.
5. Brisch R, Saniotis A, Wolf R, et al. (2014) The role of dopamine in schizophrenia from a neurobiological and evolutionary perspective: oldfashioned, but still in vogue. *Front Psychiatry* 19:47.
6. <https://www.ncbi.nlm.nih.gov/books/NBK64203/>
7. Mustafayev A (2013) Real Persons' Capacity To Act (A Comparative Study Of Turkish And Azerbaijani Laws), Master thesis, Selcuk University, Konya.
8. Dean Mobbs, Hakwan C Lau, Owen D Jones, Christopher D Frith (2007) Law, Responsibility, and the Brain. *Plos Biol* 5: e103.