**How Evidence Based is “Evidence Based” Medicine?**

**Rado Gorjup**

ITR – Institute for Transdisciplinary Research and Development

E-mail: radogorjup@hotmail.com

**ABSTRACT**

# No chemical imbalances have been proven to exist in relation to any mental health condition, no independent objective biological marker exist to date in support of any psychiatric diagnosis and last but not least no biological causes exist for the any of so called “psychiatric disorders”. Given the above facts, psychiatric diagnostic manuals such as the DSM and ICD are school examples of what evidence-based science is not and represent nothing but a failed attempt to provide the legal road from Health Care to Hell Care by over medicalization and suffering of human and non-human animals. Furthermore, psychiatric drugs can have long-lasting effects on the brain and central nervous system, withdrawal from them can cause a range of severe physical and psychological effects, psychiatric drugs are extensively prescribed to children and adolescents even though they produce altered mental states, are very harmful and do not ‘cure‘ diseases. There is a clear scientific evidence that many of psychiatric drugs do no better or little better then placebo pills and all the major classes of psychiatric drugs demonstrate little additional long-term effect, and some patients show significantly worsened long-term outcomes. Psychiatric drugs can have effects that mimic the original symptoms of distressed person, which are difficult to distinguish, this lead to additional misdiagnosing and dangerous iatrogenic issues, for which additional drugs prescribed produce over medicalization (intoxication) and livelong use of harmful multiple psychiatric drugs. It seems that medicine/pharmaceutical industry in general and psychiatry/psychopharmacology in particular are caught in a trap, and they cannot find the way out. In order to resolve that puzzled situation and unnecessary suffering we propose some practical solutions that could have treatment implications on both mental health professionals and patients.

**Keywords:**

Scientific Freedom, Medical Metaphors, DSM Diagnostic In-Validity, Pseudoscience, Placebo/Nocebo, Iatrogenic disease, Neuroethics.

# INTRODUCTION

I was privileged to participate at the Symposium about the Scientific Freedom this year in Copenhagen and the inauguration of the Institute for Scientific Freedom. During the Symposium, some prominent experts presented robust data and firm arguments regarding concerns about some contemporary “evidence based” medical practices. Especially topics such as - Why do we need an Institute for Scientific Freedom? Is it possible that medical journals are an extension of the marketing arm of pharmaceutical companies? Who is the brain in the system: The sound of silence? A case study of how public health vaccinology deals with fundamental contradictions of current policy; The many forms of scientific censorship in psychiatry; Academic oppression and other impediments to informing about nutrition; Open science, open data: do we need an alternative to the Cochrane Collaboration? – have come into focus of my attention to name but a few.

This inspired me for writing the present paper in which I focus particularly on inconsistencies and paradoxical contradictions of the current biomedical model of mental disease. The paper consists of four sections. In the first section, I discuss two most popular misleading and routinely used medical metaphors (myths) among biologically trained physicians in every day practice: the myth of chemical imbalance, and the myth of, genes playing a central role in mental disorders. In the second section, I briefly introduce the critique of DSM Manual from their own leading authors/editors and other leading authorities in the field. In addition, I provide further evidence of why such diagnostics is a pseudoscience and represents a school example of what evidence-based medicine is not. In the third section, I explain how such medical metaphors, diagnoses and misleading terminology leads to iatrogenic problems, stigma, unnecessary suffering, unethical treatments, and produce harmful effects (nocebo) by authoritarian induced false beliefs during a physician/patient relationship regarding the possibilities to get well again. In the fourth section, I further support previous evidence by scientific research of the more than 50 years of expertise written by university professor of psychiatry Thomas Szasz (1920-2012), who was the first psychiatrist among others giving rational support for doubting about existence of mental illness. His line of reasoning perfectly fits into the contemporary mental health care crisis (non-scientific treatments, misleading and in-valid diagnostic system, over medicalization, iatrogenic problems, and poor long term outcomes). By applying his pioneering work in particular “The Myth of a Mental Illness”, I show how his concepts are today even more alive than were 50 years ago. Last, but not least, I conclude that the only and less painful solution lies in radical change of current medical paradigm and practice.

# 1 TWO MOST POPULAR MEDICAL METAPHORS (MYTHS)

# Myth # 1 Genes play a central role in mental disorders

In contemporary medicine, there are many medical metaphors (myths) presented as scientific facts and used in every day medical practice: the first one claims that genes play a central role in the onset of mental disorders. Oddly enough, except for dementia and some rare chromosomal disorders no known biological causes for any of mental health condition exist. Accordingly, there are no useful biologically based tests (brain scan, blood test) being able to provide objective measure in support of any psychiatric diagnosis [1, 2, 7, 8]. Furthermore, modern genetics now unequivocally accepts that our biology functions always within the context of our environment and research clearly show how epigenetic markers alter and develop according to adaptation processes of an individual to the environmental conditions [1, 2, 3, 4, 5, 6].

Myth # 2 Myth of »chemical imbalance«

The second popular pseudoscientific term is a myth of »chemical imbalance« which stands on the position that psychological moods and states are caused by chemical imbalances. Despite the more than a half of century of countless research on chemical imbalance theory, the evidence clearly shows that there is still not a single direct evidence proving the theory correct [10, 12, 13, 14, 15, 16, 17, 18,19]. The general inescapable conclusion of neurotransmitter-depletion studies show that low levels of serotonin, norepinephrine or dopamine are not the causes for any of mental health conditions [10, 19]. However, the sad reality is that psychiatric drugs are often prescribed to patients based on the myth, that they cure a “chemical imbalance.”

**2 DSM/ICD IN-VALIDITY**

Psychiatric diagnostic manuals DSM and ICD lacks validity, are not works of objective science, but rather pseudoscientific descriptions of symptoms for behaviors of culture since they have largely been developed through clinical consensus and voting[10]. Their validity and clinical utility is therefore highly questionable, yet their influence has contributed to an expansive medicalization of human experience [20]. In an open letter to the DSM-5 Task Force and the American Psychiatric Association (APA), many researchers in the field of mental health including former task force editors of DSM project have summarized an extensive critique of the lack of DSM validity and possible consequences of such diagnostic system [20]. Given the above evidence, psychiatric diagnostic manuals such as the DSM and ICD are school examples of what evidence-based science is not and represent nothing but an unethical attempt to provide the legal road from Health Care to Hell Care by over medicalization and unnecessary suffering [11].

# 3 UNRECOGNIZED FACTS OF PSYCHIATRIC PRACTICE

# 

In this section, I just briefly mention some unrecognized facts about psychiatric practice, which have a wide range of dangerous and harmful consequences. The use of psychiatric drugs tremendously affect brain chemistry thus producing altered mental states instead of curing diseases (reversing a condition). In order to fulfill the full medical status, psychiatry embraced the ‘disease centered model’ together with pharmaceutical industry despite the lack of evidence supporting it [10, 19, 21]. The fact that all psychiatric drugs have psychoactive effects also on healthy volunteers additionally undermines the disease-centered model [19, 21, 22]. An alternative model, namely a drug-centered model seems more appropriate to address the mental health solution, especially if we take into account that the mechanism of action of many of psychotropic drugs is poorly understood [23, 24, 25, 26]. Furthermore, no associations between pharmacological actions of any of psychiatric drug and the mental health condition exist [23, 24, 25].A growing body of evidence now show that adverse effects on the brain and central nervous system caused by psychiatric drugs (neurotoxins) intoxication, especially if taken long term, can lead to cognitive, emotional and physical problems.

Psychiatric drugs in general have specific biochemical effects that over time cause other neurotransmitter systems to react to these effects causing changes in mental functioning. In his paper [27] Peter Breggin explains one such effect as chronic brain impairment (CBI). He describes this syndrome as being associated with generalized brain dysfunction. The symptoms of CBI include impaired short-term memory and disability for a new learning, apathy, concentration problems, loos of motivation and empathy, emotional lability and increased irritability [27]. He explains also another syndrome caused by intoxication anosognosia, also known as “medication spellbinding” which leads affected person not being able to recognize how psychotropic drugs is changing their mental state or behavior [28]. In his book titled Psychiatric Drug Withdrawal,, the author explains in detail the harmful effects caused by long use of psychoactive drugs and also how dangerous withdrawal effects can be when coming off psychiatric medications especially abruptly [29]. Psychiatric drugs can have effects that include mental disturbance, violence, and withdrawal syndromes [31, 32]. These can lead to misdiagnose as new psychiatric issues, for which additional drugs may be prescribed. He points out also how such withdrawal effects are often misdiagnosed and interpreted as a relapse as and withdrawal effects mimics the original symptoms, which is difficult to distinguish [29]. Withdrawal from psychotropic drugs/ neurotoxins can be disabling and can evoke severe physical and psychological effects which often last for months and sometimes years [29, 30]. Despite the robust evidence that increased use of medication of children and adolescents may lead to worse long-term outcomes, however the expansion of psychotropic drug prescription among psychiatrists in this population is still growing. Some prominent child psychiatrists raised concerns and argued that extremely unhealthy interdependence between pharmaceutical companies and physicians has completely distorted child psychiatric practice by over diagnosing/medication and turned the practice away from psychological and psychosocial approaches [33]. Most of the drug trials are performed under pharmaceutical industry or at least in cooperation with those who have extensive ties with them. Medical journals are an extension of the marketing arm of pharmaceutical

companies and many times this industry hide negative results in order to announce positive outcomes which is not just far away from evidence based medicine but also dangerous for those who prescribe/use this psychotropic drugs [34, 35, 36, 37, 38].

**4. THE MYTH OF THE MENTAL ILLNESS**

Thomas Szasz has elegantly explained distinction between behavior and disease. He strictly separated behavior from a disease entity. Disease for him is a concept that emanates its meaning that belongs to the body. Other things, like behavior and societies can only be ‘sick’ in a metaphorical interpretation, as Szasz was prone to point out[39].His line of reasoning perfectly fits into the contemporary mental health care crisis over-diagnosing and medicalization, iatrogenic problems, poor long-term outcomes). In his famous paper “The Myth of a Mental Illness” one can immediately see how his concepts are even today more alive than were 50 years ago: ”I have tried to show that the notion of mental illness is outlived whatever usefulness it might have had and that it now functions merely as a myth. The notion of mental illness thus serves mainly to obscure every day fact that life for most people is a continuous struggle not for biological survival but for a place in the sun, peace of mind or some other human value. For man aware of himself and of the world about him, once the needs for preserving the body (and perhaps the race) are more or less satisfied, the problem arise as to what he should do with himself…Our adversaries are not demons, witches, fate, or mental illness. We have no enemy whom we can fight, exorcise or dispel by cure. What we do have are problems in living [40].”

# DISCUSSION AND CONCLUSIONS

The evidence presented in this paper shed some light on critical areas in contemporary mental health medical practice and call for rethinking about the medical model of mental disease. Crisis raised by in-validity of psychiatric diagnostics, lack of biological markers with non-existing biological causes for the any of so called “psychiatric disorders, conflict of interest and manipulation of clinical trial data has led to obvious patients harm and unnecessary suffering. The evidence presented calls for radical change of current psychiatric practice as it is far away from being evidence based. In order to rebuild public trust, trials need to operate without any industry influence, overseen by independent academic institutions. Until than psychiatric nosology of mental conditions will remain nothing but a pseudoscientific descriptions of problems of living expressed in a language of a human behavior [39].

# REFERENCES

1. Kaffman A., Meaney M. J..(2007). Neurodevelopmental Sequelae of Postnatal Maternal Care in Rodents: clinical and research implications of molecular insights, 48(3-4):224-44.
2. Zimmer, C. (2010). The Brain: The Switches That Can Turn Mental Illness On and Off, Discover Magazine - published online June 16, 2010
3. McGowan, P.O. et al (2009). Epigenetic Regulation of the Glucocorticoid Receptor in Human Brain
4. Jacob Peedicayil, J. (2007). The Role of Epigenetics on Mental Disorders, *Indian J Med Res* 126:105-111.
5. Tsankova, T., Renthal, W., Kumar A., Nestler, E.J. (2007). Epigenetic Regulation in Psychiatric Disorders, *Nature Reviews Neuroscience* 8, 355-367.
6. Olopade, O.I. et al, (2008). Advances in Breast Cancer: Pathways to Personalized Medicine, *Clinical Cancer Research* 14; 7988-7999.
7. Caspi, A. et al, (2003). Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT, *Gene Science*, 301 (5631): 386-389
8. Carlat, D. (2010). Unhinged: The Trouble with Psychiatry – a doctor’s revelations about a profession in crisis; New York: First Free Press).
9. World Health Organization (WHO). Mental Health and Substance Abuse, Facts and Figures Conquering Depression, see:http://www.searo.who.int/en/Section1174/Section1199/Section1567/Section1826\_8101.htm
10. Davies, J, (2013). Cracked: why psychiatry is doing more harm than good (London: Icon Books).
11. Gorjup, R. (2019). From Ancient Priest to Contemporary Witch Physician: A Road from Health Care to Hell Care? ISPS 21st International Conference, Rotterdam, August 2019, Abstract Book; pp.64. <https://www.ispsconference.nl/wp-content/uploads/2019/08/AbstractBook-def-red.pdf>
12. Schildkraut, J. (1965). The catecholamine hypothesis of affective disorders: a review of supporting evidence, *American Journal of Psychiatry*, 122: 609-22.
13. Bowers, M., (1969). Cerebrospinal fluid 5-hydroxyindoleacetic acid and homovanillic acid in psychiatric patients, *International Journal of Neuropharmacology,* 8 255-262
14. Papeschi, R. (1971), Homovanillic and 5-hydroxyindoleacetic acid cerebrospinal fluid of depressed patients, *Archives of General Psychiatry*, 25: 354-58.
15. Bowers, M. (1974). Lumbar CSF 5-hydroxyindoleacetic acid and homovanillic acid in affective syndromes, *Journal of Nervous and Mental Disease*, 158: 325-30.
16. Mendels, J. (1974). Brain biogenic amine depletion and mood, *Archives of General Psychiatry*, 30: 447-51.
17. Maas, J. (1984). Pre-treatment neurotransmitter metabolite levels and response to tricyclic antidepressant drugs, *American Journal of Psychiatry*, 141: 1159-71.
18. Belmaker, R. H., Galila, Agam, et al., (2008). Major Depressive Disorder, *New England Journal of Medicine*, 358: 55-68.
19. Sobo, S., (2001). A Reevaluation of the Relationship between Psychiatric Diagnosis and Chemical Imbalances; Martensson, L., ‘Should neuroleptics be banned?’ *Proceedings of the World Federation of Mental Health* *Conference in Copenhagen in 1984*.
20. <http://www.ipetitions.com/petition/dsm5/>
21. McGlashan T., (2006). Rationale and parameters for medication-free research in psychosis, *Schizophrenia Bulletin*: 32. 300-302.
22. Moncrieff, J. & Cohen, D., 2005, Rethinking models of psychotropic drug action, *Psychotherapy and Psychosomatics*, 74, 145–153
23. Moncrieff J., Cohen D., Porter S., 2013, The Psychoactive Effects of Psychiatric Medication: The Elephant in the Room, *Journal of Psychoactive Drugs*, 45:5, 409-415.
24. Lacasse J.R., Leo J., (2005. Serotonin and Depression: A Disconnect between the Advertisements and the Scientific Literature. *PLoS Med* 2(12): e392. doi:10.1371/journal.pmed.0020392
25. Moncrieff, J. (2009). A critique of the dopamine hypothesis of schizophrenia and psychosis, *Harvard Review of Psychiatry*, 17(3):214-25.
26. Del Campo N., Fryer T.D., Hong Y.T., Smith R., Brichard L., Acosta-Cabronero J., et al, (2013). A positron emission tomography study of nigro-striatal dopaminergic mechanisms underlying attention: implications for ADHD and its treatment; *Brain* , Volume 136 Issue 11, 3252-3270; DOI: 10.1093/brain/awt263
27. Breggin P. R. (2011). Psychiatric drug-induced Chronic Brain Impairment (CBI): Implications for long-term treatment with psychiatric medication, International Journal of Risk & Safety in Medicine, 23: 193-200.
28. Breggin P R, (2006). Intoxication Anosognosia: The Spellbinding Effect of Psychiatric Drugs, Ethical Human Psychology and Psychiatry, 8, 201-215
29. Bregin, P. R. (20139. Psychiatric Drug Withdrawal: A Guide for Prescribers, Therapista, Patients and Their Families. New York: Springer Publishing Company.
30. http://www.madinamerica.com/2013/08/ssri-discontinuation-is-even-more-problematic-thanacknowledged/ Retrieved 13 Feb 2014.
31. Stahl SM, Lonnen AJ. (2011). The Mechanism of Drug-induced Akathsia. CNS Spectr. 2011 Jan 15.
32. Poyurovsky M. (2010). Acute antipsychotic-induced akathisia revisited, BJP, 196:89-91.
33. Timimi S, 2008, Child psychiatry and its relationship with the pharmaceutical industry: theoretical and practical issues, APT January 2008 14:3-9
34. Turner E.H, Matthews A.M., et al., (2008). Selective Publication of Antidepressant Trials and its Influence on Apparent Efficacy, *New England Journal of Medicine*, 358; 3 252-260.
35. McHenry L. (2010). Of Sophists and Spin-Doctors: Industry-Sponsored Ghostwriting and the Crisis of Academic Medicine, *Mens Sana Monography*, Jan-Dec; 8(1): 129-145.
36. Healy D. (2012). Pharmageddon .University of California Press (pp. 125).
37. Spielmans, G. I. & Parry, P. I. (2010). From Evidence-based Medicine to Marketing-based Medicine: evidence from internal industry documents, *Bioethical Inquiry*, 7:13–29.
38. Smith R., (2005). Medical Journals Are an Extension of the Marketing Arm of Pharmaceutical Companies. *PLoS Med*, 2(5): e138
39. Szasz, T. S. (1970). Ideology and insanity: Essays on the psychiatric dehumanization of man. New York: Anchor Books.
40. Szasz, T. S. (1960). The Myth of Mental Illness. *American Psychologist,* 15: 113-118.