

Review of: "“Correlation does not imply Causation”, while Psychotropic Drugs do cause Neurochemical Imbalances and Dysfunction of Neurotransmission"

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Potential competing interests: No potential competing interests to declare.

Introduction

1. There is a lack of a clear statement of the research question or objective of the manuscript. While there is a brief mention about the use of psychotropic drugs and their mechanisms, it does not explicitly outline what the study aims to investigate or contribute to the field of psychiatry.
2. Authors have made too broad generalizations about the causes of mental health disorders, attributing them solely to imbalances and impairment of neurotransmitter signaling in the brain, and ignoring the multifactorial nature of mental illness and the complex interplay of genetic, environmental, and psychological factors.
3. Introduction lacks in-depth discussion about specific effects of psychotropic drugs on neurochemical imbalances and neurotransmission dysfunction, leading the readers wanting more detailed information on how psychotropic drugs interact with neurotransmitter systems.
4. A major limitation of the manuscript is the absence of a methodology overview. The introduction does not provide an overview of the methodology employed in the research study. Readers are left unaware of how data were collected, analysed, and interpreted, which is essential for understanding the rigor and validity of the study's findings.
5. The transitions are abrupt from discussing psychotropic drugs to neurotransmitter signaling abnormalities in mental health disorders, without clearly establishing the link between these topics. This lack of coherence can confuse readers and make it difficult to follow the logical flow of the argument.
6. Authors have provided some references to support the claims made in the introduction, but there is a lack of specificity in citing relevant research studies or literature reviews. This weakens the credibility of the introduction and raises questions about the evidence base for its assertions.
7. Authors feel that there is a bias towards neurochemical explanations for mental health disorders, neglecting other important factors such as psychosocial stressors, trauma, and sociocultural influences. This narrow perspective limits the scope of the discussion and may oversimplify the understanding of mental illness.
8. Authors have introduced complex concepts such as neurotransmitter signaling pathways and stress paradigms in

animal models without providing sufficient explanation or clarification for readers who may not be familiar with these terms. This could alienate readers and hinder their comprehension of the content.

Discussion

1. Authors have highlighted the flaws in the theory of neurochemical imbalance as the underlying cause of mental health disorders, but it does not thoroughly explore alternative explanations or contributing factors beyond neurotransmitter abnormalities. This narrow focus may oversimplify the complex ethology of mental illness and overlook other important factors such as genetics, environmental influences, and psychosocial stressors.
2. The authors have predominantly presented a critical perspective on the role of neurotransmission in mental health disorders and the use of psychotropic drugs, without adequately integrating contrasting viewpoints or acknowledging the diversity of opinions within the field of psychiatry. This one-sided approach may undermine the credibility of the argument and overlook valuable insights from alternative perspectives.
3. There is an extrapolation of findings from animal studies and clinical observations to make sweeping statements about the ineffectiveness and dangers of psychotropic drugs without sufficient empirical evidence or nuanced consideration of individual differences in treatment response. This tendency to overgeneralize findings may oversimplify complex issues and fail to account for variability in patient outcomes.
4. While the discussion critiques the premise of mental health disorders being inherently caused by neurotransmitter abnormalities, it does not engage in a comprehensive analysis of counterarguments or address potential limitations of its own arguments. This lack of critical self-reflection may weaken the overall persuasiveness of the discussion and hinder constructive dialogue.
5. The authors have primarily focused on the drawbacks and risks associated with psychotropic drug treatment, but it does not adequately explore alternative or complementary treatment approaches that may offer benefits to certain individuals with mental health disorders. This neglect of nuanced treatment options may present an incomplete picture of the therapeutic landscape in psychiatry.
6. There is a sparse integration of empirical evidence. While the discussion references several studies and scholarly sources to support its arguments, it lacks thorough integration of empirical evidence to substantiate key claims and assertions. This reliance on anecdotal evidence and selective citation may weaken the overall credibility and persuasiveness of the discussion.

Conclusion

1. The conclusion of the manuscript is heavily relying on the principle of "Correlation does not imply causation" without adequately exploring other factors or theories that could contribute to the ethology of mental health illnesses. This narrow focus oversimplifies the complex nature of psychiatric disorders and neglects the potential interplay of multiple causal factors.

2. It appears that while acknowledging the presence of neurochemical abnormalities in mental health disorders, the conclusion dismisses their significance as causative factors without sufficiently considering the breadth of empirical evidence supporting their role in disease pathology. This reductionist approach undermines the validity of neurobiological research in psychiatry.
3. Authors could not present alternative explanations for the observed associations between neurochemical imbalances and mental health disorders, such as genetic predispositions, environmental stressors, and psychosocial factors. This oversimplification overlooks the complexity of psychiatric phenomena and hinders the development of comprehensive explanatory models.
4. Authors have presented a binary perspective by framing the debate as either neurochemical imbalances being causative factors or not, without acknowledging the potential for more nuanced interactions between neurobiology and psychosocial factors in the etiology of mental illness. This oversimplification detracts from the richness of contemporary psychiatric research.
5. It appears that despite acknowledging the behavioural and neurochemical effects of psychotropic drugs, the conclusion fails to integrate clinical evidence regarding the efficacy and safety of these medications in treating mental health disorders. This oversight undermines the importance of evidence-based practice in psychiatric care and disregards the experiences of patients and clinicians.
6. Authors did not provide recommendations for future research directions or clinical practice based on the arguments presented. This omission limits the potential impact of the article on advancing knowledge in the field of psychiatry and fails to offer guidance for addressing the complex challenges posed by mental health disorders.
7. Overall, the reviewer felt that the conclusion provides a simplistic summary of the main arguments presented in the article without critically reflecting on the limitations or implications of the research findings. This lack of critical analysis diminishes the overall rigor and credibility of the conclusions drawn from the study.