Review of: "Network Neuroscience and Translational Medicine: A Case for Abandoning Case Controlled Studies of Posttraumatic Stress Disorder"

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Potential competing interests: No potential competing interests to declare.

The study presented highlights the importance of adopting a network perspective when studying mental illness, acknowledging the complexity of the human brain and the need to go beyond specific brain regions. I appreciate the focus on linking symptom sets to patterns of brain activation, which provides valuable insights into understanding mental disorders. However, there are several areas where further clarification and elaboration would enhance the quality of the research.

Network Approach and Symptom Sets:

It is commendable that you emphasize the need for a network approach in understanding mental illness rather than relying solely on specific brain regions. By highlighting the connection between patterns of brain activation and symptom sets, you acknowledge the complexity and heterogeneity of mental disorders. This perspective is crucial for advancing our understanding of mental illness.

Graph Theory and Functional MRI:

You rightly point out that a detailed explanation of graph theory in the context of functional MRI is necessary to support the interpretation of your study. I agree that elaborating on the fundamental concepts of graph theory and how it relates to functional MRI will strengthen your argument. This explanation will provide a solid theoretical foundation for your network-based approach.

Importance of Resting-State Function:

The inclusion of resting-state function in illustrating the functional brain network interactions underlying brain activation patterns is crucial. By acknowledging the significance of resting-state function, you recognize the dynamic nature of brain networks. I encourage you to provide further details on how resting-state function contributes to your research and how it complements the understanding of mental illness within a network framework.

Integration of Functional and Structural Imaging:

You raise a valid point regarding the need to clarify how functional and structural imaging can be connected as connectivity metrics for each individual. Explaining the relationship between these two types of imaging modalities and how they contribute to assessing individual connectivity patterns will enhance the robustness of your methodology. Elucidating this connection will strengthen the validity of your findings and facilitate a comprehensive understanding of

mental illness.

Temporal Dynamics and Comprehensive Interpretation:

Your recognition of the importance of temporal dynamic information in comprehending complex human processes and cognition is commendable. To further strengthen your study, it is essential to provide an explanation of how you capture spatial and temporal network dynamics across different time frames. Addressing the variations in temporal correlation metrics under various scenarios will contribute to a more comprehensive interpretation of your results.

Consideration of Protective Factors:

It is valuable that you emphasize the importance of considering protective factors, such as psychological resilience, within the neurodevelopmental network process. By acknowledging the role of protective factors, you provide a more comprehensive view of the interplay between risk and resilience in mental illness. Expanding on this aspect will enhance the applicability of your research findings and provide insights into potential intervention strategies.

In conclusion, your study contributes to the understanding of mental illness through the adoption of a network perspective. By addressing the areas mentioned above, including providing a detailed explanation of graph theory in functional MRI, emphasizing the importance of resting-state function, clarifying the integration of functional and structural imaging, capturing spatial and temporal network dynamics, and considering protective factors, your research will significantly enhance the quality and impact of the study.