PEER-REVIEW REPORT

Name of journal: World Journal of Psychiatry

Manuscript NO: 67091

Title: Differential Aberrant Connectivity of Precuneus and Anterior Insula May Underpin the Diagnosis of Schizophrenia and Mood Disorders

Reviewer's code: 02476743

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor, Director, Statistician

Reviewer's Country/Territory: China

Author's Country/Territory: Bulgaria

Manuscript submission date: 2021-04-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-19 02:05

Reviewer performed review: 2021-04-25 09:18

Review time: 6 Days and 7 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good
	[ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing
	[ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority)
	[ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Overall comments: Thank you for opportunity for reviewing this paper "Differential Aberrant Connectivity of Precuneus and Anterior Insula May Underpin the Diagnosis of Schizophrenia and Mood Disorders". Basically, the study designs and methods used are appropriate, and the interpretations of the results are reasonable. However, the methodological section was somewhat inadequate. There are several areas where the manuscript needs to be strengthened.   Specific comments: 1.The introduction reads rather descriptive. For example, it is not clear how the information presented in the introduction inform the aims of the study. 2.Could you please give more information about the targeted population? Exactly, who are the targeted population? 3.Please give the power of data collection. 4. A statement including the reference number of the ethics committee where appropriate should appear in the manuscript. In addition, the authors have not specified what these procedures are. I believe that these, which are also part of the methodology and normally require considerable bureaucracy, should be reflected. 5. Describe any efforts to address potential sources of bias, if applicable. 6. P-values typically only need to be reported to 1 significant figure.   7. How was the normality of data distribution assessed in your study? Were all the variables in the study normally distributed, given that in your Table and text, you have them all reported as mean (SD)? If all variables were all normally distributed, please state this in the methods section. If not, please report them as median (range). 8. How physicians or policy makers can deliberate with patients or people based on the key findings of this paper? Totally, I would like to congratulate the authors for the enthusiasm invested in this study. However, the manuscript does not reach the level of quality required for publication as original research without major revision in World Journal of Psychiatry.

PEER-REVIEW REPORT

Name of journal: World Journal of Psychiatry

Manuscript NO: 67091

Title: Differential Aberrant Connectivity of Precuneus and Anterior Insula May Underpin the Diagnosis of Schizophrenia and Mood Disorders

Reviewer's code: 00069192

Position: Peer Reviewer

Academic degree: MD

Professional title: Chief Physician

Reviewer's Country/Territory: China

Author's Country/Territory: Bulgaria

Manuscript submission date: 2021-04-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-16 11:06

Reviewer performed review: 2021-04-26 14:00

Review time: 10 Days and 2 Hours

Scientific quality	[ ] Grade A: Excellent　　[ ] Grade B: Very good　　[Y] Grade C: Good [ ] Grade D: Fair　　[ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing　　[Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing　　[ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority)　　[Y] Accept (General priority) [ ] Minor revision　　[ ] Major revision　　[ ] Rejection
Re-review	[Y] Yes　　[ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous　　[ ] Onymous Conflicts-of-Interest: [ ] Yes　　[Y] No

SPECIFIC COMMENTS TO AUTHORS

This study performed resting state functional Magnetic Resonance Imaging (rs-fMRI) in Schizophrenia (SCH) and Major Depressive Episode (MDE) patients and using the consequent Dynamic Causal Modeling (DCM) to determine the direction and strength of connections nodes in the Default Mode Network (DMN), Salience Network (SN), and Central Executive Network (CEN). Finally, this study identified an excitatory connection from the anterior cingulate cortex to the anterior insula, and an inhibitory connection from the anterior insula to the precuneus, and from the precuneus to the prefrontal cortex in MDE, which is beneficial to distinguish SCH from MDE in clinical diagnosis. Overall this manuscript was well written and organized, however, there are several areas that may be of concern. Here are our comments: 1. This study treated depression and bipolar disorder as a whole to explore the different brain connection patterns in SCH and MDE. It is interesting to explore the different connections of brain regions in SCH, depression, and bipolar disorder, e.g. SCH-depression, SCH-bipolar disorder.   2. In table 3, the numbers of MDD patients are 14, the numbers of BD patients are 18. However, there are 4 males and 6 females in MDD groups, and there are 5 males and 11 females in MDD groups.   3. The results of this article are based on the rs-fMRI results, however, no rs-fMRI results are described in this article. The rs-fMRI results should be put in this article or supplementary materials.   5. In the discussion section, the authors briefly described the difference in connection nodes in the Default Mode Network (DMN), Salience Network (SN), and Central Executive Network (CEN). However, lack of imaging results compared with other studies. Abnormal imaging signals in each separate brain area should be explained briefly in the discussion section. For the interesting results, the author can combine the previous research findings to further elaborate.   4. Abbreviations must be revised. For example, in the abstract section, the

abbreviated "SCH" is wrong in the third line. In the introduction section, the abbreviations do not have full names. fMRI means Functional magnetic resonance imaging, however, this article appeared "functional fMRI".   5. The writing of the article should be refined, especially in the introduction section. Table 1, table 4 and table 5 are missing the final underscore. The annotations in table 2 and table 3 are duplicated.

PEER-REVIEW REPORT

Name of journal: World Journal of Psychiatry

Manuscript NO: 67091

Title: Differential Aberrant Connectivity of Precuneus and Anterior Insula May Underpin the Diagnosis of Schizophrenia and Mood Disorders

Reviewer's code: 05906528

Position: Peer Reviewer

Academic degree: MD

Professional title: Assistant Professor, Staff Physician

Reviewer's Country/Territory: United States

Author's Country/Territory: Bulgaria

Manuscript submission date: 2021-04-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-14 14:31

Reviewer performed review: 2021-04-26 17:19

Review time: 12 Days and 2 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Please see the attached word document comprising of the comments.

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The authors have addressed all the concerns raised by the peer reviewers. The manuscript seems to have been polished for clarity which is great.