PEER-REVIEW REPORT

Name of journal: World Journal of Psychiatry

Manuscript NO: 64827

Title: Psychological predictors of bipolarity in panic disorder

Reviewer's code: 00632509

Position: Peer Reviewer

Academic degree: PhD

Professional title: Senior Scientist

Reviewer's Country/Territory: Croatia

Author's Country/Territory: South Korea

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Reviewer chosen by: AI Technique

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Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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

In this study, the authors tried to predict bipolarity in panic disorder patients through simple self-report questionnaires. The included 254 patients with panic disorder. They defined bipolarity as a score of ≥7 on the Korean version of the Mood Disorder Questionnaire (K-MDQ). They used self-report questionnaires to analyze association with bipolarity. Psychological tests included the Mood Disorder Questionnaire (MDQ), Panic Disorder Severity Scale (PDSS), Beck Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), Temperament and Character Inventory (TCI), and Minnesota Multiphasic Personality Inventory (MMPI). They found that bipolar panic disorder patients were more likely to be unmarried and younger and had significantly higher scores on the MMPI (Hs, Pd, Mf, Pt, Sc, and Ma), TCI (NS, HA, ST), BDI, and STAI (state and trait) than patients without bipolarity. In logistic regression analysis, MMPI (D), MMPI (Pa), and age were negatively associated; however, MMPI (Ma) and STAI (trait) were positively associated with the bipolarity. In addition, bipolarity was positively associated with current manic symptoms and trait anxiety and negatively associated with current depressive symptoms. They concluded that 50% of patients with panic disorder are likely to have hypomanic or manic symptoms, and that specific psychological factors may be used to better detect such patients.   This is a nice study with a good design.   Major comments: 1) Small number of patients 2) All scales were self-reported questionnaires 3) No correction of the P value although the authors used different scales and different comparisons (i.e. multiple testing) 4) Use of abbreviations without explanations of their meaning 5) Some statements are redundant and the text should be shortened   Specific comments: 1. Abstract: Please provide the full names for these abbreviations in the Abstract: (Hs, Pd, Mf, Pt, Sc, and Ma), (NS, HA, ST),   (D), (Pa),   (Ma)..   2. Introduction: there are a lot of repetitions, please shorten them: i.e. "It is well known that there is a strong link between panic disorder and bipolar disorder.

Previous studies have shown that patients with bipolar disorder have a high risk of comorbid panic disorder.[1]" and "Panic disorders frequently occur with affective disorders, particularly bipolar disorder." It was already stated in the Introduction!! 3. Introduction: please change this statement: "Birmaher et al. found that youths with panic disorder or bipolar disorder are likely to co-occur with other psychological disorders." Youths do not co-occur! The statement should be written: "Birmaher et al. found that panic disorder or bipolar disorder are likely to co-occur with other psychological disorders in youths."   4. Introduction: please provide appropriate citations for these statements: "Many previous studies have discussed the prognosis of bipolar disorder in the presence of panic disorder, and few studies have investigated bipolarity in patients with panic disorder."   5. Methods: Please provide all explanations (in full text) for the abbreviations used in the the MMPI . What is D??   6. Result should be Results??   7. Add "and"; and replace "than" with "compared to" in this statement: "BP+ group consisted of younger age group (30.78±0.59 versus 37.11±3.21) at the time of the psychological evaluation, and were either unmarried or divorced (single 56.2% versus 44.4%, P = 0.008) compared to BP-group (Table 1).   8. Please change this statement" In addition, some TCI dimensions of the BP+ group had significantly different scores than those of the BP group." Into " In addition, BP+ group had significantly different scores in some TCI dimensions than BP- group."   9. Please add "Compared to BP-group" before these statements: "The BP+ group had higher novelty seeking (NS), harm avoidance (HA), and self-transcendence (ST) scores, and lower self-directedness (SD) and cooperativeness (C) scores. Moreover, the BP+ group also showed higher levels of depressive symptoms as measured by the BDI (31.5 versus 21, P<0.001), and anxiety symptoms measured by STAI (state) and STAI (trait) (state: 63 versus 57, P<0.001 / trait: 61.5 versus 51.5, P<0.001)" This description should be written like this and please delete italics from the p values: "Compared to BP-group, BP+ group had higher novelty

seeking (NS), harm avoidance (HA), self-transcendence (ST) scores, lower self-directedness (SD) and cooperativeness (C) scores, higher levels of depressive symptoms as measured by the BDI (31.5 versus 21, P<0.001), anxiety symptoms measured by STAI (state) and STAI (trait) (state: 63 versus 57, P<0.001 / trait: 61.5 versus 51.5, P<0.001)." 10. Please delete a dot before the pa value: "K-MDQ scores were negatively associated with years of education and TCI self-directedness dimension scores (P<0.05). 11. In the Results, please provide explanations for these abbreviations: "In correlation analyses (Table 3), K-MDQ scores were associated with increasing MMPI HS, D, Pd, Mf, Pa, Pt, Sc, Ma, Si clinical scales…"? Also, under Tables 2, 3 and 4, provide explanations for the abbreviations. 12. The same comment applies here: "In correlation analyses (Table 3), K-MDQ scores were associated with increasing MMPI HS, D, Pd, Mf, Pa, Pt, Sc, Ma, Si clinical scales…" What are these abbreviations: HS, D, Pd, Mf, Pa, Pt, Sc, Ma, Si?? 13. Discussion: The authors stated that: "The aim of this study was to find the difference in demographic characteristics and various clinical symptoms between the panic disorder group with and without a high risk of being diagnosed with bipolar disorder, to find the variable that can predict the potential risk of bipolar disorder in patients with panic disorder." First, the aim of the study goes into Introduction. Second, they included subjects with panic disorder with and without bipolar disorder (according to the criteria they described in Methods ("Patients with scores above the threshold score of 7 were considered as patients with bipolarity (BP+ group) and the remaining were considered as patients without bipolarity (BP– group).", and not "the panic disorder group with and without a high risk of being diagnosed with bipolar disorder". 14. Discussion: What did the authors wanted to state here: "Among the 254 subjects who were diagnosed with panic disorder, approximately 50% the patients scored 7 or more on the K-MDQ, suggesting a history of manic/hypomanic symptoms in the past. As a result, the younger the diagnosis, the higher the risk of bipolarity"?? The statement "As

a result..” is wrong; the authors found with a correlation that younger age was significantly associated with an increased K-MDQ score (BP+ group).” Therefore, these statements should be written (without “as a result” part), like this: “Younger age was associated with the higher the risk of bipolarity, while the manic subscale of the MMPI, and the STAI (trait) score, which indicates the innate anxiety level, were positively related to the bipolarity in panic patients. ” 15. When the authors state “In previous studies..”, more than one citations should be given. If they cite only one study, the statement should be corrected, but the authors should comment: “In line with our data, in a previous study, early age at onset of panic disorder was associated with an increased morbidity risk for bipolar comorbidity.[27]” 16. The same comment applies here: “Moreover, previous studies have already shown that the risk of anxiety disorder increases as the onset age of bipolar disorder decreases.[30]” It should be: “Moreover, a previous study has already shown that the risk of anxiety disorder increases as the onset age of bipolar disorder decreases.[30]” 17. Please correct this statement: “It was found that patients with panic disorder with bipolarity had a positive correlation and the panic disorder patients without bipolarity had a negative correlation with the manic subclinical score.” Patients do not have a positive or negative correlation!! The authors have found that : “Manic subclinical scores were positive correlated with bipolarity in patients with panic disorder with bipolarity, and were negative correlated with bipolarity in patients without bipolarity.” 18. Please provide citation: “Many studies have identified bipolarity in patients with anxiety or depression.” 19. This is redundant: “ Several tests and analysis tools have been developed to help diagnose psychiatric patients.” 20. Please delete “natural” from: “In addition, patients with panic disorder and bipolarity felt less depressed compared to patients without bipolarity, which is a natural result considering the nature of bipolar disorder manic symptoms. “ it should be corrected into: “In addition, patients with panic disorder and bipolarity felt less

depressed compared to patients without bipolarity, which results from the nature of bipolar disorder manic symptoms. " 21. Singular (not studies, study when you cite only one reference): "However, previous studies focusing on the relationship between temperament and panic disorder, high scores of harm avoidance (HA), and reward dependence (RD) are related to panic symptoms.[36] please correct into: "However, previous study focusing on the relationship between temperament and panic disorder, high scores of harm avoidance (HA), and reward dependence (RD) are related to panic symptoms.[36]" 22. Again, patients are not positively correlated; their scores are correlated: "Patients with panic disorder and high levels of anxiety are positively correlated with bipolarity, particularly when having anxious characteristics." Correct into: "High levels of anxiety were positively correlated with bipolarity, particularly when having anxious characteristics in patients with panic disorder."

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Reviewer's code: 04123310

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor

Reviewer's Country/Territory: China

Author's Country/Territory: South Korea

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Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good
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Conclusion	[ ] Accept (High priority) [ ] Accept (General priority)
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Peer-reviewer statements	Peer-Review: [ ] Anonymous [Y] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This paper presented the psychological characteristics of patients with panic related to bipolarity. The authors found that the group of panic disorder with bipolarity (BP+) were more likely to be unmarried and younger, and had higher scores on some psychological assessment scales, such as the MMPI, TCI, BDI, and STAI compared to the group of panic disorder without bipolarity (BP). Logistic regression analysis showed that BP+ group was positively associated with current manic symptoms and trait anxiety, MMPI (Ma) and STAI (trait), and negatively associated with current depressive symptoms. The paper is well written, and the findings are interesting, However, there are still some issues and questions to be answered by the authors. 1. The first main problem of this article is lack of inclusion criteria and exclusion criteria of the participants, and it is unclear whether other factors influence the findings of the patient with panic disorder in the present study. The author should provide these information including illness onset, episodes and treatment. 2. The second concerns is about the usage of Mann-Whitney test and Spearman's rank correlation analysis in continuous variables including psychological scale scores. The author should explain the rationality of using these statistical methods. 3.The authors presented that the Age, MMPI, TCI, STAI might be the psychological predictors of bipolarity in panic disorder. However, it is interesting and worthy to investigate how the interaction of these psychological characteristics influence the panic disorder. So further analysis including intermediary analysis are encouraged.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

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SPECIFIC COMMENTS TO AUTHORS

Statistics. Please remove „between" / two times was written/ from:

„Kolmogorov-Smirnov test determined whether the data were normally distributed. The Mann-Whitney and chi-square test was conducted to compare demographic and clinical variables between between the group with an MDQ score of less than 7 and the group with an MDQ score of 7 or more (BP+ group)."   Discussion: ad „in" in this sentence: „In addition, in a previous study focusing on the relationship between temperament and panic disorder, high scores of harm avoidance, and reward dependence were related to panic symptoms.(38)"   Limitation: Please reformulate this statement, it is not clear what the authors wanted to state??:" However, the study design is may related to the selection bias and hinder the generalizability of the results". Presumably the authors should delete "is" and add "be": However, the study design may be related to the selection bias and hinder the generalizability of the results"