PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Characteristics and Factors Associated with Psychotic-Like Experiences in Remission: A Cross-Sectional Study of 4,208 College Students in China
AUTHORS	Yang, Xin-hu; Wang, Rui; Li, Yue; Zhou, Hong-ling; Zhou, Liang; Sun, Meng

VERSION 1 - REVIEW

REVIEWER NAME	Ortuño-Sierra, Javier
REVIEWER AFFILIATION	Universidad de la Rioja
REVIEWER CONFLICT OF INTEREST	None.
DATE REVIEW RETURNED	07-Feb-2024

GENERAL COMMENTS	The work entitled “Characteristics and associated factors of psychotic-like experiences in remission: a retrospective study of college students” contains relevant scientific knowledge and covers a relevant topic. However, I have some comments to make that should be addressed before the manuscript could be considered for publication. Introduction: In my opinion, some other studies could be added. For instance (Debbane and Barrantes-Vidal; Fonseca-Pedrero, Debbane, Ortuño-Sierra, and Muñiz, 2018; Fonseca-Pedrero, Debbane, Rodríguez-Testal, et al., 2021) Authors may want to consider introducing the hypothesis of the study. Method: Participants: Did authors use a scale of infrequency of response to check for possible participants being dishonest or responding in a random way Data Analysis: Generally speaking, I think that the analyses performed are sound. Considering that participants are University students, a relevant variable to include in the analysis would have been academic performance (e.g., number of courses they failed or average grade). This could have added valuable information to educational implications of the study. It could be mentioned in limitations or prospective. Discussion: In my opinion, this section contributes valuable information and may only be improved by introducing the previous literature suggested.

	In addition, and considering that adolescence is a particular developmental stage with different particularities, it maybe relevant if authors try to discuss how these specific aspects of this stage could be affecting the results found. Also, the fact that all the participants are at University level, should be mentioned. I it would be relevant to see more lines about the educational, and/or clinical implications of the study. For example, what are the implications of the study in terms of early detection strategies and prophylactic interventions with specific target group and in general population?

REVIEWER NAME	Thompson, Elizabeth
REVIEWER AFFILIATION	Brown University Warren Alpert Medical School
REVIEWER CONFLICT OF INTEREST	None
DATE REVIEW RETURNED	19-Feb-2024

GENERAL COMMENTS	Overall, this is an interesting paper that explores a variety of factors associated with the course of PLEs (i.e. remission or persistence of experiences). The study findings are compelling and meaningfully extend the PLE literature. The current manuscript is limited, however, by the absence of necessary details, as well as a general need for proofreading to improve the flow and clarity of the paper. Below are some of my suggestions that may improve the readability and impact of this work. General feedback The manuscript would benefit from careful proofreading for grammatical errors, clarity, and appropriateness of English phrasing throughout. Abstract It would be helpful if the authors defined “remission PLEs” in the abstract. Similarly, what is meant by “current PLEs”- does this mean persistent (past and current PLEs) or newer PLEs (current, but not past)? What is meant by the “factor values” (Results subsection)? Relatedly, what do the authors mean by “The factor values of the remission group were almost in between non-PLEs and current PLEs”? It is difficult to understand the results- reorganization and clarification is needed. It would be helpful if the results indicated the direction of effects (e.g., fewer adverse life events, greater resilience, fewer depressive and anxiety symptoms, etc). The conclusion references adolescents, but I believe this population is young adults- please clarify. Introduction It would be helpful if the authors provided a bit more information about how PLEs differ from full-threshold positive symptoms (e.g., intensity, frequency, impairment, etc).

	The authors describe people who have never experienced PLEs as "more likely having won the genetic lottery"- the authors may want to rephrase this and substantiate the claim with appropriate references. Relatedly, the authors state that "individuals who have transient PLEs tend to be influenced by environmental benefits," but no citations are included, and it is unclear what is meant by "environmental benefits". Are there specific environmental factors that are associated with resilience? It would be helpful to outline prior research here, as is done for the "risk factors" sentence that follows. Overall, I think a more thorough review of prior literature is needed in the introduction, and this will help to fill out the discussion of the paper's many interesting findings. The following article might be helpful to review: DeLuca, J. S., Rakhshan Rouhakhtar, P., Klaunig, M. J., Akouri-Shan, L., Jay, S. Y., Todd, T. L., ... & Schiffman, J. (2022). Psychosis-like experiences and resilience: A systematic and critical review of the literature. Psychological services, 19(S1), 120. Methods What is WeChat? It would be helpful to describe this. How did the authors verify participant age and get consent from legal guardians for those under 18? More details are needed. What is meant by "genuine PLEs" (2.2.1. Psychotic-like experiences)? The authors provide a reference for their cutoffs for genuine PLEs, but more information is needed on how these cutoffs were derived so that the reader can understand what the cutoffs mean (e.g., how many items would someone need to endorse to have a score of 1.30?). It would be helpful for the authors to provide more information on "left-behind child status"- were these children left with family or somewhere else? What is the significance of this variable? The authors state that the Resilience Scale for Chinese Adolescents (RSCA) was scored from 1 (not at all) to 5 (fully compliant)- what does "fully compliant" mean in this context? Perhaps an example question would be helpful here. Did the authors use the subscales, or just the total score? If one of the focuses of the paper is on resilience, I might suggest looking at the individual subscales. Were the PHQ-9 and GAD-7 scores combined into one affective symptom scale? If not, are both measured scored the same way (i.e. 5 or higher indicating mild symptoms and characterized as "positive cases" in the study)? If the scores were combined, the authors may want to re-consider this and instead include separate depression and anxiety scales, since these tools measure distinct constructs. More information is needed about the sleep problems scale. Is this an existing scale? How many items are included? What is the score range? Is there validation research to cite? How was "previous mental health diagnosis" measured to determine whether participants should be excluded? The authors may want to consider using "adolescents and young adults" to characterize the sample, as adolescence is often thought

	to include 10-19 years old (e.g., the World Health Organization definition). What is meant by “school-level heterogeneity” in the statistical analyses section? I wonder if the authors might want to consider re-naming the “current PLEs” group as the “persistent PLEs” group- is that label more appropriate to characterize the fact that they had both past and current symptoms? Results Were postgraduate students excluded because they were over the age limit, or for another reason? If there is another reason, it should be included in the exclusion criteria section. What is meant by “75 cases excluded on account of the overage”? Discussion Overall the discussion is strong and provides a nice summary of results, synthesizing these findings with existing theories and literature. The authors also provide a clear overview of limitations. It may be helpful to add a bit more about future directions and the impact of this research. The authors state that the found factors associated with the “prevention of the onset of PLEs”- I do not think that “prevention” is an accurate characterization. I would suggest rephrasing this to say that several factors were associated with no lifetime PLEs (not prevention, per se). It would also be helpful to include the directionality of results in the opening paragraph of the discussion (e.g., fewer life events, greater resilience, etc).

VERSION 1 – AUTHOR RESPONSE

Reply to Reviewer 1：

1. Introduction: In my opinion, some other studies could be added. For instance (Debbane and Barrantes-Vidal;
Fonseca-Pedrero, Debbane, Ortuño-Sierra, and Muñiz, 2018; Fonseca-Pedrero, Debbane, Rodríguez-Testal, et al., 2021). Authors may want to consider introducing the hypothesis of the study.

Authors’ reply: Thank you for your valuable suggestions. We have revised the introduction to include the above references, as follows: (page 5)

“PLEs are less intense and frequent than full-threshold positive symptoms and typically do not cause significant functional impairment. 3”
And
“Fonseca Pedrero et al. have also found that PLEs is an important concept in understanding mental illness, particularly schizophrenia spectrum disorders, entailing its potential role in the pathogenesis of mental disorders 10 11”

——3.Debbané M, Barrantes-Vidal N. Schizotypy from a developmental perspective. Schizophr Bull 2015;41 Suppl 2(Suppl 2):S386-S95. doi: 10.1093/schbul/sbu175
——10.Fonseca-Pedrero E, Debbané M, Ortuño-Sierra J, et al. The structure of schizotypal personality traits: a cross-national study. Psychol Med 2018;48(3):451-62. doi:

10.1017/S0033291717001829
——11. Fonseca-Pedrero E, Debbané M, Rodríguez-Testal JF, et al. Schizotypy: The Way Ahead. Psicothema 2021;33(1):16-27. doi: 10.7334/psicothema2019.285

2.Method:
Participants:Did authors use a scale of infrequency of response to check for possible participants being dishonest or responding in a random way.

Authors' reply: We did not use a scale of infrequency of response in this survey. However, to ensure the quality and reliability of the data, we conducted a rigorous check of the responses. Those who completed less than 5 minutes were excluded, as this indicated a high likelihood of being dishonest or responding randomly. Additionally, we also promised that only researchers in this program can get access to their data, and their answers will have no impact on their campus life or academic scores, as follows: (page 7)
"They were promised that only researchers in this program can get access to their data, and their answers would have no impact on their campus life or academic scores."

3.Data Analysis: Generally speaking, I think that the analyses performed are sound.

Authors' reply: Thank you for the recognition for our work.

4.Considering that participants are University students, a relevant variable to include in the analysis would have been academic performance (e.g., number of courses they failed or average grade). This could have added valuable information to educational implications of the study. It could be mentioned in limitations or prospective.

Authors' reply: As recommended, this point has been addressed in the revised limitations, as follows: (page 21)

"Fourth, our study utilized simplified measures for lifestyle factors and sleep problems, and failed to collect some valuable information, such as academic performance. Future research should consider to collect more comprehensive and detailed data".

5.Discussion:
In my opinion, this section contributes valuable information and may only be improved by introducing the previous literature suggested.

Authors' reply: We accept this valuable comment, and we have discussed it in the revised manuscript, as follows: (page 15)

"Adolescence is considered as a crucial developmental stage for studying psychopathological phenomena 10 11. During this special stage of brain maturation3, complex factors are associated with the occurrence and development of PLEs."

——3.Debbané M, Barrantes-Vidal N. Schizotypy from a developmental perspective. Schizophr Bull 2015;41 Suppl 2(Suppl 2):S386-S95. doi: 10.1093/schbul/sbu175
——10.Fonseca-Pedrero E, Debbané M, Ortuño-Sierra J, et al. The structure of schizotypal personality traits: a cross-national study. Psychol Med 2018;48(3):451-62. doi: 10.1017/S0033291717001829
——11. Fonseca-Pedrero E, Debbané M, Rodríguez-Testal JF, et al. Schizotypy: The Way Ahead. Psicothema 2021;33(1):16-27. doi: 10.7334/psicothema2019.285

6.In addition, and considering that adolescence is a particular developmental stage with different particularities, it maybe relevant if authors try to discuss how these specific aspects of this stage could be affecting the results found.

Authors' reply: We accept this valuable comment, and we have discussed it in the revised manuscript, as follows: (Page 15)

"Adolescence is considered as a crucial developmental stage for studying psychopathological phenomena 10 11. During this special stage of brain maturation3, complex factors are associated with the occurrence and development of PLEs."

7.Also, the fact that all the participants are at University level, should be mentioned.

Authors' reply: Thank you for your advice. We have added the information to the first paragraph as well as to the limitation.

"this is the first study to investigate the factors associated with the remission of PLEs from multiple domains, including socio-demographic, lifestyle, psychosocial factors, lifetime affective symptoms, and sleep problems, in a sample of college students." (page 15)
AND
"Fifth, our study was conducted among college students, which may limit the generalization of the conclusion in other populations to some extent, due to their relatively high levels of education and good family environment. "(page 21)

8. It would be relevant to see more lines about the educational, and/or clinical implications of the study. For example, what are the implications of the study in terms of early detection strategies and prophylactic interventions with specific target group and in general population?

Authors' reply: Thank you for your advice. We have added relevant implications, as follows: (page 22)

"Our findings may offer guidance to educators on how to support individuals already with PLEs, as well as provide potential targets for the development of future intervention strategies."

Reply to Reviewer 2：

1. General feedback: The manuscript would benefit from careful proofreading for grammatical errors, clarity, and appropriateness of English phrasing throughout.

Authors' reply: Thank you for your valuable advice. We accept this valuable comment and the language has been edited carefully by a native English speaker.

2.Abstract
It would be helpful if the authors defined "remission PLEs" in the abstract.

Authors' reply: Thank you for your valuable advice. We have added a definition of "remission PLEs" in the abstract, as follows: (page 2)
"the characteristics and associated factors of remission PLEs, which refer to the absence of current PLEs following previous PLEs, remain unclear."

Similarly, what is meant by “current PLEs”- does this mean persistent (past and current PLEs) or newer PLEs (current, but not past)?
Authors’ reply: In this study, current PLEs included both persistent (past and current PLEs) and newer PLEs (current, but not past), as we assessed PLEs in two time frames-lifetime and in the past month (current). For those who screened positive in current PLEs, they were also screened positive in lifetime PLEs (see figure 1). We have also provided the survey questionnaire in the supplementary materials.

For example,

“CAPE-P15:
Instruction: According to your actual situation, choose the option that best suits your situation for each item.
Options: 1.None/2.Sometimes/3.often/4.Nearly always.
1 Have you ever felt as if people seem to drop hints about you or say things with a double meaning? (none/sometimes/often/nearly always)
If students choose “none”, the system will present problem 2; If otherwise, the system will go on to present 1.1
1.1 In the last month, have you ever felt as if people seem to drop hints about you or say things with a double meaning? (none/sometimes/often/nearly always)”

2 Have you ever felt as if some people are not what they seem to be? (none/sometimes/often/nearly always)
If students choose “none”, the system will present problem 3; If otherwise, the system will go on to present 2.1
2.1 In the last month, have you ever felt as if some people are not what they seem to be? (none/sometimes/often/nearly always)
...”

3.What is meant by the “factor values” (Results subsection)? Relatedly, what do the authors mean by “The factor values of the remission group were almost in between non-PLEs and current PLEs”?

Authors’ reply: Thank you for your advice. We have rephrased the abstract. (page 2)

4.It is difficult to understand the results- reorganization and clarification is needed. It would be helpful if the results indicated the direction of effects (e.g., fewer adverse life events, greater resilience, fewer depressive and anxiety symptoms, etc).

Authors’ reply: Thank you for your advice. We have rephrased the abstract. (page 2)

5. The conclusion references adolescents, but I believe this population is young adults- please clarify.

Authors’ reply: Thank you for your comments. In this study, we cited a previous article from Lancet Child Adolesc Health to define this group in the method (Page 11). In this article, "adolescents" typically refers to individuals aged between 10 and 24 years.
——Sawyer SM, Azzopardi PS, Wickremarathne D, et al. The age of adolescence. Lancet Child Adolesc Health 2018;2(3):223-28. doi: 10.1016/S2352-4642(18)30022-1

6.Introduction
It would be helpful if the authors provided a bit more information about how PLEs differ from full-threshold positive symptoms (e.g., intensity, frequency, impairment, etc).

Authors' reply: Thank you for your comments. We have added a more detailed definition of PLEs to the introduction, as follows:

"PLEs are less intense and frequent than full-threshold positive symptoms and typically do not cause significant functional impairment." (page 5)

7. The authors describe people who have never experienced PLEs as "more likely having won the genetic lottery"- the authors may want to rephrase this and substantiate the claim with appropriate references. Relatedly, the authors state that "individuals who have transient PLEs tend to be influenced by environmental benefits," but no citations are included, and it is unclear what is meant by "environmental benefits". Are there specific environmental factors that are associated with resilience? It would be helpful to outline prior research here, as is done for the "risk factors" sentence that follows.

Authors' reply: Thank you for your valuable advice. We have rephrased this part in the introduction, as follows: (page 6)

"Compared to those who have never experienced PLEs (more likely to benefit from genetic factors), individuals with remission PLEs tend to be influenced by environmental factors, such as resilience, cannabis, stress and urbanicity 6 19. For instance, a recent systematic review of 15 studies from 10 countries found that resilience may help to mitigate or reduce PLEs to some extent 19"

——6. Linscott RJ, van Os J. An updated and conservative systematic review and meta-analysis of epidemiological evidence on psychotic experiences in children and adults: on the pathway from proneness to persistence to dimensional expression across mental disorders. Psychol Med 2013;43(6):1133-49. doi: 10.1017/S0033291712001626
——19. DeLuca JS, Rakhshan Rouhakhtar P, Klaunig MJ, et al. Psychosis-like experiences and resilience: A systematic and critical review of the literature. Psychol Serv 2022;19(Suppl 1):120-38. doi: 10.1037/ser0000585

8. Overall, I think a more thorough review of prior literature is needed in the introduction, and this will help to fill out the discussion of the paper's many interesting findings. The following article might be helpful to review: DeLuca, J. S., Rakhshan Rouhakhtar, P., Klaunig, M. J., Akouri-Shan, L., Jay, S. Y., Todd, T. L., ... & Schiffman, J. (2022). Psychosis-like experiences and resilience: A systematic and critical review of the literature. Psychological services, 19(S1), 120.

Authors' reply: Thank you for your valuable advice. We have rephrased this part in the introduction, as follows: (page 6)

"Compared to those who have never experienced PLEs (more likely to benefit from genetic factors), individuals with remission PLEs tend to be influenced by environmental factors, such as resilience, cannabis, stress and urbanicity 6 19. For instance, a recent systematic review of 15 studies from 10 countries found that resilience may help to mitigate or reduce PLEs to some extent 19. A deeper exploration of remission PLEs may provide more information for secondary prevention. For the time being, most previous studies have focused on the persistence of PLEs, suggesting that the factors associated with the persistence of PLEs are multidimensional and complex, including heritability/genetics, ethnic minority status, urbanicity, substance use, psychopathology, and trauma 8 20 21. However, much is still unknown about the group that experienced the remission of PLEs 22."
——19. DeLuca, J. S., Rakhshan Rouhakhtar, P., Klaunig, M. J., Akouri-Shan, L., Jay, S. Y., Todd, T. L., ... & Schiffman, J. (2022). Psychosis-like experiences and resilience: A systematic and critical review of the literature. Psychological services, 19(S1), 120.

9.Methods

What is WeChat? It would be helpful to describe this.
Authors' reply: Thank you for your valuable suggestion. We have added more explanation in the method (page 7)
"the Quick Response (QR) code of the questionnaire was delivered through WeChat, which is a widely used social media and messaging app in China."

10.How did the authors verify participant age and get consent from legal guardians for those under 18? More details are needed.
Authors' reply: The school's system is used to verify the basic information, such as the age, sex and ethnicity. If a student was under 18, their parents would be contacted through teachers and asked to provide informed consent online.

11. What is meant by "genuine PLEs" (2.2.1. Psychotic-like experiences)? The authors provide a reference for their cutoffs for genuine PLEs, but more information is needed on how these cutoffs were derived so that the reader can understand what the cutoffs mean (e.g., how many items would someone need to endorse to have a score of 1.30?).

Authors' reply: Thank you for your comment.
Firstly, we have validated self-reported PLEs against interview-verified PLEs, and identified the optimal cut-off value on the self-report CAPE-P15 for detecting genuine PLEs using interview-verified PLEs as the golden criteria in a prior study of college students.
——Sun M, Wang D, Jing L, et al. Comparisons between self-reported and interview-verified psychotic-like experiences in adolescents. Early Interv Psychiatry. 2022;16(1):69-77. doi:10.1111/eip.13132

Secondly, for CAPE-P15, a weighted average will be calculated by dividing the total score by the number of items, and used for screening genuine PLEs. Thus, it can not be judged by the number of items they endorse. (For example, response/score to each item ranges from 1-None/2-Sometimes/3-Usually/4-Always, the CAPE-P15 was presented in supplementary files)

We have added more explanation in the methods as follows: (page 8)

"The total score was divided by the number of valid answers to provide the weighted score 17, which was used to screen the positive cases in this study. The psychometric properties of the Chinese version of the CAPE-P15 for measuring both current and lifetime PLEs were certified in our previous study 24. We have identified the optimal cut-off value of the self-report CAPE-P15 for detecting genuine PLEs using interview-verified PLEs as the golden criteria in our prior study of college students 25".

12. It would be helpful for the authors to provide more information on "left-behind child status"- were these children left with family or somewhere else? What is the significance of this variable?

Authors' reply: Following this suggestion. We have provided more information on "left-behind child status". (page 8 and 32)

"Left-behind children" is a specific social phenomenon in China due to the rapid urbanisation process and large-scale labour migration since China's reform and opening up. With the development of the economy, many adults in rural areas move to urban areas in search of better employment opportunities and living conditions. Meanwhile, their children are left behind in the countryside under the care of their grandparents or other relatives. These children are commonly referred to as 'left-behind children'.
Some studies have examined the relationship between PLEs and left-behind children, and suggested

a possible link between them. Taking into account the national context, we also included this variable in our analyses.

——Sun M, Zhang W, Guo R, et al. Psychotic-like experiences and correlation with childhood trauma and other socio-demographic factors: A cross-sectional survey in adolescence and early adulthood in China. Psychiatry Res. 2017;255:272-277. doi:10.1016/j.psychres.2017.03.059

Considering the word limit, we added a brief explanation of this phenomenon in the method as follows (page 8):
“left-behind child status (referring to those left behind in their hometown by one or both of their migrant worker parents) 17”
13. The authors state that the Resilience Scale for Chinese Adolescents (RSCA) was scored from 1 (not at all) to 5 (fully compliant)- what does “fully compliant” mean in this context? Perhaps an example question would be helpful here. Did the authors use the subscales, or just the total score? If one of the focuses of the paper is on resilience, I might suggest looking at the individual subscales.

Authors’ reply: We have added the survey questionnaire in supplementary files, which can help readers better understand all scales. For RSCA, “Fully compliant” means “strongly agree”. For example, if a question on the RSCA asks, "I am able to adapt to new situations," and a participant responds with a "5," it means that the participant feels they are "fully compliant", suggesting that they strongly agree that they can adapt to new situations.
In this study, we aimed to explore a wide range of relevant factors including demographic variables, lifestyle, psychosocial factors, lifetime affective symptoms and sleep problems. Thus, we only adopted the total score of resilience. We would like to focus on the current topic in this study and to further explore subscales of variables (e.g. resilience, childhood trauma, social support) in our subsequent research.

14. Were the PHQ-9 and GAD-7 scores combined into one affective symptom scale?

Authors’ reply: No, the PHQ-9 and GAD-7 were not combined into one affective symptom scale.

If not, are both measured scored the same way (i.e. 5 or higher indicating mild symptoms and characterized as “positive cases” in the study)? If the scores were combined, the authors may want to re-consider this and instead include separate depression and anxiety scales, since these tools measure distinct constructs.

Authors’ reply: Yes, a cutoff score of 5 or higher on either the PHQ-9 or GAD-7 is used separately to indicate the presence of mild symptoms and is often characterized as a "positive case" in the study. We have rephrased this part, as follows: (page 11)
“In our study, a cut-off score of 5 was adopted to screen the positive cases both for PHQ-9 and GAD-7.”

15. More information is needed about the sleep problems scale. Is this an existing scale? How many items are included? What is the score range? Is there validation research to cite?

Authors’ reply: This scale was presented in methods (page 11) and supplementary file (page 9 of supplementary file). It is comprised of three questions which are widely used for the assessment of insomnia. However, it is not an existing scale and we have also mentioned it as a limitation in the Discussion (page 21), as follows:

“ Sleep problems including difficulty falling asleep, waking up easily at night and early wakening were assessed through dichotomous items (Yes/No). (page 11)”

And
“Fourth, our study utilized simplified measures for lifestyle factors and sleep problems, and failed to collect some valuable information, such as academic performance. Future research should consider to collect more comprehensive and detailed data.” (page 21)

16. How was “previous mental health diagnosis” measured to determine whether participants should be excluded?

Authors’ reply: Participants were asked to complete a questionnaire where they are queried about their medical history, including any previous mental health diagnoses, as follows: (question 7 of supplementary file 1)

“Question 7:
Have you ever been diagnosed with any mental illness? 1. Yes 2 No
If answered yes, continue with the question: what is your diagnosis: 1. depression 2. anxiety disorder 3. obsessive-compulsive disorder 4. bipolar
Disorder 5. schizophrenia 6. other _____”

17. The authors may want to consider using “adolescents and young adults” to characterize the sample, as adolescence is often thought to include 10-19 years old (e.g., the World Health Organization definition).

Authors’ reply: Thank you for your advice. As we stated above, we cited a previous article from Lancet Child Adolesc Health to define this group in the method (Page 11). In this article, the "adolescents" typically refers to individuals aged between 10 and 24 years.
——Sawyer SM, Azzopardi PS, Wickremarathne D, et al. The age of adolescence. Lancet Child Adolesc Health 2018;2(3):223-28. doi: 10.1016/S2352-4642(18)30022-1

18. What is meant by “school-level heterogeneity” in the statistical analyses section?
Authors’ reply: The term "school-level heterogeneity" refers to the heterogeneity in school-level caused by clustering in schools. In the context of our study, we recruited participants from three colleges, and participants from the same school may have some shared correlates at "school-level" due to school policies, environments, resources, or the socio-economic backgrounds of the student populations.
As we focused on individual-level factors in this study, we have to exclude the influence on school-level. Therefore, we conducted an intercept model to initially evaluate the school-level heterogeneity. As the test of intercept variance was not statistically significant, it meant there were no significant differences at school-level, and logistic regressions can be used to explore individual-level factors.

19. I wonder if the authors might want to consider re-naming the “current PLEs” group as the “persistent PLEs” group- is that label more appropriate to characterize the fact that they had both past and current symptoms?

Authors’ reply: Thank you for your advice. As we stated in the response to the second question, current PLEs included both persistent (past and current PLEs) and newer PLEs (current, but not past) in this study. Therefore, we had to use the name “current PLEs”.

20.Results
Were postgraduate students excluded because they were over the age limit, or for another reason? If there is another reason, it should be included in the exclusion criteria section.

Authors’ reply: Postgraduate students were excluded because they were over the age limit.

21. What is meant by “75 cases excluded on account of the overage”?

Authors’ reply: Thank you for your comment. We have made it clear, as follows: (page 13)
“75 cases were excluded because they did not meet the age criteria.”

22.Discussion
Overall the discussion is strong and provides a nice summary of results, synthesizing these findings with existing theories and literature. The authors also provide a clear overview of limitations. It may be helpful to add a bit more about future directions and the impact of this research.

Authors’ reply: Thank you for your suggestion, this point has been addressed in the revised manuscript. (Page 22)

“Consequently, further investigation is warranted to explore these potential mechanisms.”
And
“Our findings may offer guidance to educators on how to support individuals already with PLEs, as well as provide potential targets for the development of future intervention strategies.”

23. The authors state that the found factors associated with the “prevention of the onset of PLEs”- I do not think that “prevention” is an accurate characterization. I would suggest rephrasing this to say that several factors were associated with no lifetime PLEs (not prevention, per se).

Authors’ reply: Thank you for your valuable comment and this sentences has been rephrased, as follows：

“Several shared factors associated with the remission of PLEs and the absence of lifetime PLEs were identified.” (page 16)
And
“4.2 Shared associated factors associated with the remission PLEs and non-PLEs” (page 16)
It would also be helpful to include the directionality of results in the opening paragraph of the discussion (e.g., fewer life events, greater resilience, etc).
Authors’ reply: Thanks for your valuable comment and this part has been rephrased, as follows: (page 16)
“Several shared factors associated with the remission of PLEs and the absence of lifetime PLEs were identified, such as experiencing fewer adverse life events, exhibiting greater resilience, and reporting more symptoms of depression/anxiety and early waking. Additionally, one specific protective factor has been found to promote the remission of PLEs (i.e. more social support). Finally, compared to non-PLEs, we also found several risk factors associated with the onset of remission PLEs (i.e. female, older age, more chronic physical illness, more alcohol intake, more childhood trauma and more symptoms of waking up easily at night).”

VERSION 2 – REVIEW

REVIEWER NAME	Ortuño-Sierra, Javier
REVIEWER AFFILIATION	Universidad de la Rioja
REVIEWER CONFLICT OF INTEREST	None
DATE REVIEW RETURNED	19-Apr-2024

GENERAL COMMENTS	Authors have addressed all my previous comments. I have no further suggestions. I think that the papers is ok now.

REVIEWER NAME	Thompson, Elizabeth
REVIEWER AFFILIATION	Brown University Warren Alpert Medical School
REVIEWER CONFLICT OF INTEREST	None.
DATE REVIEW RETURNED	10-May-2024

GENERAL COMMENTS	Overall, this is an interesting manuscript that explores a variety of factors associated with the course of PLEs (i.e. remission or persistence of experiences). The study findings are compelling and meaningfully extend the PLE literature. Below are some of my suggestions that may improve the readability and impact of this work. General feedback 1. There are still a handful of grammatical issues and instances of awkward phrasing throughout the manuscript that need to be corrected. Some examples are listed below: Abstract Participants section- “4,208 participants, aged 15-24 years, began their undergraduate education in colleges.” Intro paragraph 1- “a crucial predictor of a series of mental disorders”- perhaps “several” disorders? Intro paragraph 1- “entailing its potential role in the pathogenesis of mental disorders” Intro paragraph 1- “Accordingly, PLEs may be viewed as a lower state of psychosis, which marked the risk for psychopathology and shared by mental disorders during the progression of mental disorders.” 2. I find the phrase “remission PLEs” a bit awkward. Other options could be “PLEs in remission” as used in the title, or “remitted PLEs.” This is of course up to the authors, I am just suggesting some alternative options. 3. I suggest removing “among Three Colleges” from the title, as the current wording seems repetitive and unnecessary. Abstract The revisions to the abstract are well done- the results are organized and clear to the reader. 4. What is meant by “the precision prevention” in the first sentence of the conclusion? I suggest dropping this phrase and simply saying that the findings “provide preliminary targets for intervention…” 5. I am not sure the “associated factor” keyword is helpful.

	Introduction The authors have done a nice job integrating reviewers' comments to provide a more thorough review of the literature. There are still a few specific places that would benefit from further edits. 6. The second paragraph (beginning with "According to the psychosis proneness-persistence-impairment model proposed…") needs to be proofread and reworked to improve flow. While I understand the intention of the paragraph, it is difficult to follow as written- perhaps breaking up some of the longer sentences would help. Please also check English/grammar in this paragraph. 7. PLEs are described as "reversible" in Paragraph 3- I don't think this is the intended meaning. Perhaps transient? or short-lived? or not enduring? Methods The additional details added to the methods section are helpful. 8. The only measure description that is still lacking, in my opinion, is the sleep problems measure. I still think the total possible score should be mentioned- was it scored 0 = no and 1 = yes? The authors state that the items are widely used to assess insomnia- could a citation be included? The current description is lacking in comparison to the level of detail provided for other measures. 9. For the RSCA scale, would it be more accurate and clear to say that 5 = "strongly agree" rather than "fully compliant", as explained in the response to the reviewer. 10. Figure 1 did not seem to appear in the uploaded version of the revised manuscript. 11. It might be helpful to explicitly state that the current PLEs group includes those with new and persistent experiences, as explained in the response to the reviewer. Results The results section is clear and thorough, with appropriate analyses and tables. Discussion The discussion section is clear and comprehensive. The authors have done a nice job addressing reviewers' comments. 12. There are a few instances of particularly long sentences in the discussion. It might be helpful, for clarity and readability, to separate these into multiple sentences. 13. It is not clear why the concluding sentence of the manuscript references educators specifically. The authors may wish to make this sentence more broad, as the implications go beyond school settings and may be particularly relevant for mental health care providers.

VERSION 2 – AUTHOR RESPONSE

Reply to Reviewer 1：

1.Comments to the Author:
Authors have addressed all my previous comments.
I have no further suggestions.
I think that the papers is ok now.
Authors' reply: Thank you for the recognition for our work.

Reply to Reviewer 2：
Comments to the Author:
Overall, this is an interesting manuscript that explores a variety of factors associated with the course of PLEs (i.e. remission or persistence of experiences). The study findings are compelling and meaningfully extend the PLE literature. Below are some of my suggestions that may improve the readability and impact of this work.

General feedback
1. There are still a handful of grammatical issues and instances of awkward phrasing throughout the manuscript that need to be corrected. Some examples are listed below:

Abstract Participants section- "4,208 participants, aged 15-24 years, began their undergraduate education in colleges."

Intro paragraph 1- "a crucial predictor of a series of mental disorders"- perhaps "several" disorders?

Intro paragraph 1- "entailing its potential role in the pathogenesis of mental disorders"

Intro paragraph 1- "Accordingly, PLEs may be viewed as a lower state of psychosis, which marked the risk for psychopathology and shared by mental disorders during the progression of mental disorders."

Authors' reply: Thank you for this valuable advice. The language throughout the manuscript has been edited carefully by a native English speaker, such as:

Abstract Participants section-
"A total of 4,208 college freshmen aged from 15 to 24 participated in our survey."

Intro paragraph 1-
"Previous studies have revealed that PLEs are a crucial predictor of several mental disorders"

Intro paragraph 1-
"suggesting that PLEs may be related to the potential pathogenesis of these disorders".

Intro paragraph 1-

"Accordingly, PLEs, shared by several mental disorders during their development, could be considered as an early state of psychosis, indicative of high risk for subsequent psychopathology."

2. I find the phrase "remission PLEs" a bit awkward. Other options could be "PLEs in remission" as used in the title, or "remitted PLEs." This is of course up to the authors, I am just suggesting some

alternative options.

Authors' reply: Thank you for your suggestion. We have decided to adopt your suggestion and have revised all the term to "remitted PLEs."

3. I suggest removing "among Three Colleges" from the title, as the current wording seems repetitive and unnecessary.
Abstract
The revisions to the abstract are well done- the results are organized and clear to the reader.

Authors' reply: Thank you for your suggestion. We have amended the title according to your advice. (page 1)

4. What is meant by "the precision prevention" in the first sentence of the conclusion? I suggest dropping this phrase and simply saying that the findings "provide preliminary targets for intervention…"

Authors' reply: Following this suggestion, this point has been addressed in the revised manuscript, as follows: (page 2)

"These findings suggest that remission PLEs play a vital, unique role among three groups, and provide preliminary targets for the intervention for adolescents at risk of mental health problems."

5. I am not sure the "associated factor" keyword is helpful.

Authors' reply: Thank you for your valuable suggestions. We have deleted this keyword. (page 3)

6. Introduction
The authors have done a nice job integrating reviewers' comments to provide a more thorough review of the literature. There are still a few specific places that would benefit from further edits.
The second paragraph (beginning with "According to the psychosis proneness-persistence-impairment model proposed…") needs to be proofread and reworked to improve flow. While I understand the intention of the paragraph, it is difficult to follow as written- perhaps breaking up some of the longer sentences would help. Please also check English/grammar in this paragraph.

Authors' reply: Thank you for this valuable advice and the language has been edited carefully by a native English speaker, as follows: (page 4)

"According to the psychosis proneness-persistence-impairment model proposed by van Os et al. (2009), the onset and development of PLEs result from the interaction of genetic factors with environmental exposures15. However, a recent study has indicated that environmental factors may play a greater role in the aetiology of PLEs than genetic factors 16. Therefore, it is crucial to identify modifiable environmental factors in this high-risk population, in order to enhance protective factors and to weaken risk factors of PLEs, which may help to avoid the onset of PLEs or to prevent the individuals with PLEs from a worse outcome."
7. PLEs are described as "reversible" in Paragraph 3- I don't think this is the intended meaning. Perhaps transient? or short-lived? or not enduring?

Authors' reply: We accept this valuable comment, and we have amended it as "transient" in the revised manuscript, as follows: (page 4)

"Although PLEs are relatively common among adolescents, most of them are transient."

8. Methods
The additional details added to the methods section are helpful.
The only measure description that is still lacking, in my opinion, is the sleep problems measure. I still think the total possible score should be mentioned- was it scored 0 = no and 1 = yes? The authors state that the items are widely used to assess insomnia- could a citation be included? The current description is lacking in comparison to the level of detail provided for other measures.

Authors' reply: Thank you for your valuable advice. We accept this valuable comment and this part has been rephrased carefully, as follows: (page 8)

Derived from the Pittsburgh Sleep Quality Index 40, three questions were utilized to assess sleep problems, including difficulty falling asleep, waking up easily at night and early wakening in the past month 41 42. Following the methodology of previous studies 43 44, responses to each query were captured using a binary scale, with a score of 0 indicating "no" and 1 indicating "yes".
——40. Buysse DJ, Reynolds CF, Monk TH, et al. The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. Psychiatry Res 1989;28(2):193-213.
——41. Wang D, Chen H, Chen D, et al. Shift work disorder and related influential factors among shift workers in China. Sleep Med 2021;81:451-—56.
——42. Chen D, Jiang M, Shi X, et al. Predictors of the initiation of shift work disorder among Chinese intern nurses: a prospective study. Sleep Med 2020;68:199-206. doi: 10.1016/j.sleep.2019.11.1263
——43. Chou F-F, Lee C-H, Chen J-B, et al. Sleep disturbances before and after parathyroidectomy for secondary hyperparathyroidism. Surgery 2005;137(4):426-30.
——44. Holley JL, Nespor S, Rault R. A comparison of reported sleep disorders in patients on chronic hemodialysis and continuous peritoneal dialysis. Am J Kidney Dis 1992;19(2):156-61.

9. For the RSCA scale, would it be more accurate and clear to say that 5 = "strongly agree" rather than "fully compliant", as explained in the response to the reviewer.

Authors' reply: Thank you for your suggestion. We have amended this according to your advice. (page 7)

10. Figure 1 did not seem to appear in the uploaded version of the revised manuscript.

Authors' reply: Thank you for bringing this to our attention. We had uploaded Figure 1 in the previous submission, but it did not display. We have taken immediate action and have re-uploaded Figure 1 in this revision, ensuring that it is now visible.

11. It might be helpful to explicitly state that the current PLEs group includes those with new and persistent experiences, as explained in the response to the reviewer.

Authors' reply: Thank you for your suggestion. We have made it clear, as follows: (page 9)

"In this study, current PLEs included both persistent (past and current PLEs) and new-onset PLEs (current, but not past)."

12.Results
The results section is clear and thorough, with appropriate analyses and tables.
Discussion
The discussion section is clear and comprehensive. The authors have done a nice job addressing reviewers' comments.

Authors' reply: Thank you for the recognition for our work.
13. There are a few instances of particularly long sentences in the discussion. It might be helpful, for clarity and readability, to separate these into multiple sentences.

Authors' reply: Thank you for your suggestion. We have amended the long sentences according to your advice.

Such as:
1. Original sentence (page 12): Stable associations between PLEs and recent adverse life events, individual resilience, depressive and anxiety symptoms as well as early wakening were observed in the logistic regression of the whole sample, regardless of the onset or remission of PLEs.

Revised sentence: The two logistic regressions revealed a stable association between PLEs and recent adverse life events, individual resilience, depressive and anxiety symptoms, as well as early waking. And this association existed regardless of current PLEs or remitted PLEs.

2. Original sentence (page 12-13): It's worth noting that after modelling a wide range of factors, adverse life events in the last year showed strong associations with the onset and remission of PLEs, which is consistent with a previous study, suggesting that a profound impact of recent adverse events deserves more attention, further underscoring the need to focus on reducing the recent adverse events in intervention strategies.

Revised sentence: It is noteworthy that, in the final models of a wide range of factors, adverse life events in the last year is strongly associated with both the onset and remission of PLEs. This finding is consistent with that of a previous study, suggesting that a profound impact of recent adverse events deserves. Hence, it is urgently needed to reduce impacts from the recent adverse events in the subsequent intervention strategies.

3. Original sentence (page 15): However, no relevant study has examined the relationship between easy waking and remission of PLEs, and our study showed that adolescents with easily waking up were more likely to be remission group in comparison to non-PLEs group, highlighting the importance of insomnia symptom subtypes.

Revised sentence: However, no relevant study has examined the relationship between easy waking and the remission of PLEs. Our study showed that adolescents with easy waking were more likely to be in the remitted group than in the non-PLEs group, highlighting the importance of insomnia symptom subtypes.

14. It is not clear why the concluding sentence of the manuscript references educators specifically. The authors may wish to make this sentence more broad, as the implications go beyond school settings and may be particularly relevant for mental health care providers.

Authors' reply: We accept this suggestion, this point has been addressed in the revised manuscript, as follows: (page 16)

"Our findings may offer guidance to mental health care providers on how to support individuals already with PLEs, as well as provide potential targets for the development of future intervention strategies."