## Response to the comments of Reviewer #1

**Comment 1**: Is HEI a validated screening tool? Please provide some references to support its clinical use.
**Response**: Thank you for the comment. HEI is a widely utilized screening tool at our institution. The survey object of HEI can be any target group with emotional distress, including hospitalized patients or medical staffs. The advantage of HEI lies in its simple and fast emotional screening, which is supported and validated by the following literature.
Reference 1: Ping Zheng, Siwei Du, Yongqiao Mao, *et al*. Study on the mental health status of anesthesiologists and its influencing factors. Am J Transl Res. 2021;13(3):1862-1869.
Reference 2: Jian Wang, Wan-Jun Guo, Lan Zhang, *et al*. The development and validation of Huaxi emotional-distress index (HEI): A Chinese questionnaire for screening depression and anxiety in non-psychiatric clinical settings. Compr Psychiatry. 2017;76:87-97.

**Comment 2**: How was the sample size determined? There was no evidence of sample size calculations.
**Response**: Thank you for the comment. Combined with previous literature and clinical practice observations, the prevalence of anxiety and depression in the target population is about 6-12%. We used PASS software (version 15.0.5) for analysis and set the estimation rate to 7% with an allowable error of 2%. ,$\alpha$=0.05, and the result suggested that the sample size was 676. Since the total sample size of this study is 966, we believe that the sample size currently included is sufficient.

**Comment 3:** In terms of the study inclusion and exclusion criteria, were patients with acute trauma resulting in a central nervous system disorder; other severe stress events that occurred during treatment; symptoms of mental illness or a history of mental illness also eligible for study inclusion? More details are necessary.
**Response:** Thank you for this insightful comment. First, we excluded patients with acute trauma resulting in a central nervous system disorder, because patients with central nervous system disorders in our hospital were admitted to neurosurgery department and not the orthopedic trauma department. In addition, patients with symptoms of mental illness or a history of mental illness were also excluded, because psychiatrists would be invited to intervene in treatment and use more professional scales for emotional evaluation. Finally, as you pointed out, other severe stress events, such as family members loss, malignant tumor suffering, may occur during treatment,

thereby affecting the patient's mood. Since we did not actively ask for this information in clinical practice, so the missing information may result in bias. We plan to take it consideration into future research.

**Comment 4:** Were patients with more severe traumatic injuries and also those who required emergency life- or limb-saving surgeries predictive of higher emotional distress scores?

**Response:** Thank you for this important comment. The Injury Severity Score (ISS) was often used to assess the severity of multiple trauma patients. The present study revealed that the severity of injury among geriatric orthopedic patients was significantly positively associated with HEI score > 8. The finding was in line with the study of Giannoudis et al in the UK. The ISS score was one of the related independent risk factors. In addition, Weinberg et al found that psychiatric illness was common among individuals who sustained orthopaedic polytrauma, and patients with depression had more complications. Hawamdeh et al found that factors associated with a high prevalence of anxiety and depression among amputees. Therefore, in summary, patients with more severe traumatic injuries and also those who required emergency life- or limb-saving surgeries maybe gain higher emotional distress scores.

Reference 1: Giannoudis PV, Harwood PJ, Kontakis G, Allami M, Macdonald D, Kay SP, Kind P. Long-term quality of life in trauma patients following the full spectrum of tibial injury (fasciotomy, closed fracture, grade IIIB/IIIC open fracture and amputation). Injury. 2009; 40:213-219.

Reference 2: Hawamdeh ZM, Othman YS, Ibrahim AL. Assessment of anxiety and depression after lower limb amputation in Jordanian patients. Neuropsychiatr Dis Treat. 2008; 4:627-633.

**Comment 5:** Besides anxiety and depression, acute stress disorders should be considered as well (citation: ncbi.nlm.nih.gov/pmc/articles/PMC7678499). Consistent with this presumption is evidence that ASD is associated with the following characteristics: History of a preexisting psychiatric disorder, history of traumatic exposures prior to recent exposure, female gender, trauma severity, neuroticism and avoidant coping.

**Response:** Thank you for the comment. We added the discussion content on this issue with supplementing literature provided. Although the sixth item "Felt scared that the sudden panic or fear would attack again?" in HEI involves the recurrence of traumatic experience, the three major symptom groups of ASD: Intrusion symptoms (i.e., flashback), avoidance symptoms (i.e., avoidance of external reminders of the traumatic event), and arousal symptoms (i.e., Highly alert to surroundings) were not evaluated in depth. In

the present study, the HEI scale mainly focuses on the screening of anxiety and depression (i.e., negative emotions and suicidal tendencies). Therefore, we need to add analysis and research on the field in the future.

Reference 1: Qiuke Xiao, Jinwei Ran, Weizhong Lu, Ruijie Wan, Lujue Dong, and Zhenyu Dai. Analysis of the Point Prevalence and Influencing Factors of Acute Stress Disorder in Elderly Patients with Osteoporotic Fractures. Neuropsychiatr Dis Treat. 2020; 16: 2795 – 2804.

Reference 2: Regier DA, Kuhl EA, Kupfer DJ. The DSM-5: Classification and criteria changes. World Psychiatry. 2013;12:92-8.

**Comment 6:** Depression runs an entire clinical spectrum from mild to severe. In clinical practice, we know that there are genetic and neurobiological studies lending support to the notion that these conditions are not discrete categories but rather, have common biological underpinnings and may form at least part of a continuum or affective disorder spectrum (citation: pubmed.ncbi.nlm.nih.gov/32557983). This should be at least briefly mentioned as it has important implications for research and treatment.

**Response:** Thanks for your suggestion. We added the content on this issue at the discussion section, and the supporting literature was supplemented.

**Comment 7:** Please change "screen for intervention in high-risk groups" to "screen for anxiety and depression in higher risk groups."

**Response:** Thank you for this suggestion. We have revised the sentence.

**Comment 8:** As a good practice, the underlying data should be made publicly available. If this was not possible, please provide a reason why.

**Response:** Thank you for this suggestion. The data-sets generated and analyzed during the current study are not publicly available because the data contains privy to the patient's privacy but are available from the corresponding author on reasonable request.

## Response to the comments of science editor

**Comment:** 1 Scientific quality: The manuscript describes an observational study of the prevalence of depression and anxiety and associated factors among geriatric orthopedic trauma inpatients. The topic is within the scope of the WJCC. (1) Classification: Grade C; (2) Summary of the Peer-Review Report: This study is good. In terms of the study inclusion and exclusion criteria, were patients with acute trauma resulting in a central nervous system disorder; other severe stress events that occurred during treatment; symptoms of mental illness or a history of mental illness also eligible for study inclusion? More details are necessary. The questions raised by the reviewers should be answered; (3) Format: There are 3 tables and 1 figure; (4) References: A total of 30 references are cited, including 10 references published in the last 3 years; (5) Self-cited references: There is no self-cited references; and (6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially references published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately. 2 Language evaluation: Classification: Grade B. A language editing certificate issued by MedE was provided. 3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, the Institutional Review Board Approval Form. Written informed consent was waived. No academic misconduct was found in the Bing search. 4 Supplementary comments: This is an unsolicited manuscript. No financial support was obtained for the study. The topic has not previously been published in the WJCC. 5 Issues raised: (1) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; and (2) The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text. 6 Re-Review: Required. 7 Recommendation: Conditional acceptance.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade C (Good)

Response: We appreciate your interest in our manuscript. We have revised the manuscript according to the peer reviews and your requirements. The original figure documents have now been provided and prepared following your technical guidelines.

## Response to the comments of company Editor-in-Chief

**Comment:** I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Please provide decomposable Figures (in which all components are movable and editable), organize them into a single PowerPoint file. Please authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.

**Response:** We appreciate your interest in our manuscript. We have revised the manuscript according to the peer reviews and your requirements. The original figure document and three-line tables have now been provided and prepared following your technical guidelines.