Reply to "Methodological notes, should be considered in research on Mizaj"

Thank you for forwarding the above letter for our consideration. We are very grateful to our academic colleagues (Akram Moradi Farahani *et al*.) who commented on our study entitled "Comparing Mizaj (temperament) in type 1 diabetes mellitus and healthy controls: A case–control study."[1] Answerback to the letter, we confirm the followings:

a. We confirm that the study was a case–control trial and usually these types of observational studies do not imply causality. At most, such studies indicate the association or relationship between independent variables and the dependent variable (a given outcome of interest) as we did[2]
b. Since that one of the main objectives of our study was to assess the diagnostic value of the score of Mojahedi Mizaj Questionnaire (MMQ), accordingly we explained the receiver operating characteristic (ROC) curve and logistic regression analysis as the main statistical methods used for data analysis in the statistical analysis of method section and the secondary statistical tests such as ANOVA have been footnoted under the Tables, although we could mention them in statistical analysis subsection (Foot note of Table 1, P3)
   Normality of continuous data was evaluated using the Kolmogorov–Smirnov test and Q–Q plot (P: 2, L: 9, 10).
c. ANOVA was used to compare the mean scores of MMQ among groups; as stated, this method regarding our main study objective had a secondary role; therefore, we presented its results and did not proceed to *post hoc* analysis for pairwise comparisons, because we differentiated groups based on MMQ score through applying ROC analysis. However, in fact, by applying *post hoc* (assuming equality of variances by Levene's test), we observed differences of each group with other two groups ($P < 0.001$ in all methods of *post hoc* analysis, including Bonferroni)
d. The presented mean (standard deviation [SD]) age in the body of results is for onset age for patients, however, the presented data for age in Table 1 are mean (SD) of current age for each group of participants when they recruited in the study
e. The current study was the first research on evaluating Mizaj in diabetic children, and accordingly, it is a pilot study and did not need sample size calculation and power analysis
f. According to our philology searches, "temperate" is the best word to explain normal Mizaj. In the final version of the proof, it was ignored and we try to request its correction
g. The odds reported in Table 2 should be read as 3.61 (1.51–6.3). Unfortunately, this was overlooked during the proofreading process
h. In this study, we calculated the best cutoff points of MMQ score for differentiating the studied groups with the highest accuracy. After that, we divided the Mizaj scores into two groups (a binary variable) and evaluated its association with risk of illness (diabetes) by logistic regression analysis and reported the odds ratio (OR) and its 95% confidence interval
i. The ORs derived from the logistic regression analyses could be interpreted as the measure of association between risk factor (or independent variable, in our study: Mizaj) and dependent variable (in the current study: illness status); therefore, there is no problem with such interpretation as we did in our study
j. Transcendent Mizaj factors are equable and constant in different people. We used MMQ that its validity and reliability has been confirmed for juvenile people, to assess if it could discriminate diabetic patients Mizaj from healthy ones. Based on the result of our study, its discriminative validity was confirmed.

Finally, we express again our thanks to our colleagues for their comments.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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