Author's response to reviews

Title: Migraine headaches among university students using ID migraine test as a screening tool

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Author's response to reviews: see over
Dear Editor,

According to the reviewers’ suggestions, we revised the manuscript and below are the descriptions of our revisions:

**Reviewer 1: Necdet Karlı**

**Major Compulsory Revisions**

1- In the conclusion part it is stated that ID-M was a valid screening tool among adolescents. However the mean age of the study population was 19. How many participants were under 18?

“There are 108 students under the age of 18 (17 years). However, as World Health Organization (WHO) defines adolescence as 10 to 19 years of age, 71.3% (n=2633) of our study group were in the adolescent age, whereas 28.7% (n=1061) were in the adult group, with a ratio of 2.5:1.”

2- Related to the first criticism if the number of the subjects under 18 is high so the prevalence rates should be compared to the other studies in two main groups; adolescents and adults.

“A table comparing the two groups is added to the manuscript (Table 2). Since we formed the adolescent group according to WHO definition (10-19 yrs), our adolescent group consists of students between 17-19 years of age. Our study group reflects neither adults, nor adolescents in total. As it represents a certain age group, we believe that discussing with other studies concerning adolescent and adult groups will not reflect the real outcomes. We preferred to define the group as university students, which we think it would be more appropriate.”

3- A flow chart would be much more clear to follow the steps of the study.

“A flow chart has been added to the manuscript (Figure 1).”

4- In the discussion part study limitations were not discussed.

“There are no major limitations in the study. The time of the study can be counted as a limitation, which we mentioned in the discussion part.”

5- The number of participants according to the age groups would be useful for readers.

“The number of participants according to the age groups has been added (Figure 2).”

6- The authors stated that there was not a significant difference in prevalence among age groups. Is this because the majority of the participants were in the 20-30 age group? This should be clarified.

“On the contrary, the majority of our study population is between 17-19 years of age. The ratio of adolescent/adult population is 2.5:1 (2633 and 1061, respectively).”

**Minor Essential Revisions**

1- The prevalence rates can be given according to the age and gender in a separate table.

“The prevalence rates have been given according to the age and gender in a separate table (Table 3).”
Reviewer 2: Filippo Brighins

Major:

1. The work is not entirely new as ID migraine has been previously validated and used as a screening tool in a Turkish adolescent population; these points should be discussed.

“Our work did not aim to validate the ID-Migraine screening tool. In this study, we aimed to determine the prevalence of migraine headaches among university students using the validated screening tool ID Migraine™ test. The validation and previous studies in our country have been discussed in the manuscript. But there are few studies on this topic and we intended to make a contribution with our work.”

2. Even if validated in a in Turkish speaking student population, ID migraine showed accuracy scores considerable lower in this people with respect to adults (62% sensitivity; 71% specificity); so, I think that a clinical validation, at least with semi-structured questionnaire according with IHS criteria, should have been performed by authors in a sample of the population studied by an examiner blind to the results of the ID.

“As this study is conducted in 2008-2009 academic year, we missed the opportunity to perform a clinical validation. But in the light of the reviewer’s suggestion, we will keep that in mind for future studies.”

3. It is said in methods that subjects: “...filled out the questionnaire including the ID Migraine”. However, except than ID migraine, the remaining part of the mentioned questionnaire is not showed nor described.

“The methods section is revised. The questionnaire mentioned consists of age, gender, preliminary questions and 3-item ID Migraine test.”

4. The authors state that migraine could negatively interfere with attention and concentration affecting learning performance and curriculum; this could appear reasonable, but is far than proved. To this aim a comparison between migrainous and not migrainous students with respect to educational performance is needed.

“In the study of Bigal et al (8), it is stated that migraine has a more negative effect on school performance than non-migrainous students, even more for the same pain intensity with the students with episodic tension-type headaches (ETTH). It is also proved that migrainous students missed more school than students with ETTH. It is clear that we did not give enough information on the school performance reduction, and it is now added in the manuscript.”

Minor

1. The abstract is poor; methods, in particular, should be described in more detail.

“The abstract is reconstructed.”

2. Page 6: “Also, the methods used to determine the prevalence of migraine type headaches can play a role in the variety of the prevalence.” This sentence appears difficult to
understand, I suppose author would mean that methods of data collection can affect variability in prevalence rates. If so, the sentence could be rewritten as follows: “Also, the methods used to determine the prevalence of migraine type headaches can significantly affect the prevalence rates explaining the differences observed in the epidemiological studies.”

“The sentence is changed according to the reviewer’s suggestion.”

3. **English is poor and the paper should be revised for language by a native English speaker**

“The manuscript is revised for language.”