

# Baş ağrısında bilişsel hatalar

## Cognitive errors in headache

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### Özet

Baş ağrısı ile psikiyatrik komorbidite arasında iki yönlü bir etkileşim vardır ve psikiyatrik komorbidite baş ağrısı yönetimini zorlaştırmaktadır. Herhangi bir tedavi modalitesine uyumu etkileyen faktörlerden biri bilişsel hatalardır. Baş ağrısı çeken hastalardaki bilişsel hatalar ve bunların psikiyatrik belirtilerle ilişkisi henüz yeterince araştırılmamıştır. Bu çalışmada, kronik migren (KM) ve kronik gerilim tipi baş ağrısı (KGTB) gruplarını bu ilişki açısından karşılaştırmayı amaçladık. Psikiyatrik belirtiler KGTB’de KM’ye göre anlamlı olarak yüksek bulundu ( $p<0.05$ ). Korelasyon analizine göre KM grubunda bilişsel hatalarla psikiyatrik belirtiler arasında anlamlı bir ilişki bulunmazken, KGTB grubunda anlamlı pozitif korelasyon bulundu. Bu çalışma, KGTB’nin KM’ye göre bilişsel hatalarla daha fazla ilişkisi olduğunu göstermektedir.

**Anahtar kelimeler:** Baş ağrısı, kronik gerilim tipi baş ağrısı, kronik migren, bilişsel hata, psikiyatrik eş tanı

### Summary

There is a two way interaction between headache and psychiatric comorbidity and psychiatric comorbidity complicates headache management. One of the factors that affect adherence to any treatment modality is cognitive errors. Cognitive errors in patients suffering from headache and their relationship with psychiatric symptoms have not yet been studied sufficiently. In this study, we aimed to compare the chronic migraine (CM) and chronic tension-type headache (CTH) groups in terms of this relationship. Psychiatric symptoms were found to be significantly higher in CTH than CM ( $p<0.05$ ). According to the correlation analysis, there was no significant correlation between cognitive errors and psychiatric symptoms in the CM group, while a significant positive correlation was found in the CTH group. This study suggests that CTH has more relation with cognitive errors than CM.

**Keywords:** Headache, chronic tension-type headache, chronic migraine, cognitive error, psychiatric comorbidity

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**Dear Editor,**

Headaches are one of the most common health problems people experience. Chronic migraine (CM) is a type of headache that can last 4 hours to 3 days, is unilateral, pulsatile, is felt in moderate and high intensity, increases with daily physical activity, accompanied by nausea, vomiting, photophobia, and disrupts the functionality of the person. Chronic tension-type headache (CTH) is the most common headache and it often lasts between thirty minutes and one week and is repetitive. There is no vomiting, although it is rarely accompanied by nausea.<sup>(1)</sup>

Both CM and CTH are affected by psychological stress factors and are more common in females. Psychiatric comorbidity is higher in CTH than CM. Psychiatric comorbidity can be the cause, result, or both cause and result of headache. Psychiatric comorbidity is one of the factors that make headache treatment difficult.<sup>(2,3)</sup>

Another possible complicating factor in headache management is cognitive error. Cognitive errors in patients suffering from headache and their relationship with psychiatric symptoms have not yet been studied sufficiently. In this study, we aimed to compare the CTH and CM groups in terms of this relationship.

Patients who admitted to the district state hospital neurology outpatient clinic between November 1, 2020 and January 10, 2021 and diagnosed with CM and CTH according to the International Classification of Headache Disorders-II were included in this study. Twenty-two patients with organic illnesses or already on psychiatric treatment were excluded from the study. Symptom Check List-Revised-90 (SCL-90-R)<sup>(4)</sup> and Cognitive Distortions Scale (CDS)<sup>(5)</sup> were filled out in patients who accepted to participate in the study. Approval was obtained from the Adiyaman University Non-Interventional Clinical

Research Ethics Committee for this study (2020/11-3). In statistical analysis, descriptive data and continuous variables were given as mean±standard deviation, and categorical variables as frequency and percentage. Chi-square test was used in comparison of independent variables in categorical data and independent sample t test was used for numerical data. Pearson correlation analysis was used to find out the relationship between the variables. Statistical significance level was accepted as  $p<0.05$ .

The groups consisting of 33 CTH and 37 CM patients were similar in terms of mean age ( $p=0.457$ ), education level ( $p=0.289$ ), marital status ( $p=0.363$ ), and working status ( $p=0.756$ ). While a significant difference was found between the groups in terms of the subscale of CDS evaluating interpersonal relationships (CDS-IP) ( $p<0.001$ ), no significant difference was found in terms of the personal achievement subscale of CDS (CDS-PA) ( $p=0.128$ ). While the somatization ( $p=0.045$ ), anxiety ( $p=0.041$ ), obsession ( $p=0.012$ ), depression ( $p<0.001$ ), interpersonal sensitivity ( $p<0.001$ ), anger ( $p=0.009$ ), additional ( $p=0.006$ ), and global severity index ( $p=0.010$ ) subscales of SCL-90-R differed between the groups, the psychotic ( $p=0.425$ ), paranoid ( $p=0.864$ ), and phobic ( $p=0.159$ ) subscales of SCL-90-R were similar between the groups. All of the significant differences were against the CTH group.

According to the correlation analysis, there was no significant correlation between CDS subscales and SCL-90-R in the CM group, while a significant positive correlation was found in the CTH group. Among the whole patient group ( $n=70$ ), those with a history of psychiatric treatment for any reason ( $n=26$ ) had a significantly lower CDS-IP score compared to the rest ( $p<0.001$ ). Twenty-one of these 26 people were from the CM group.

In addition to confirming the information in the literature that CTH has more relation with psychiatric symptoms compared to CM, this study reveals that CTH has more relation with cognitive errors than CM. Cognitive errors prevent people from making functional decisions. (6) Considering that there are more cognitive errors in CTH than in CM and this is an obstacle to seeking psychiatric help, it can be understood why people with a history of psychiatric treatment have a lower level of cognitive errors. In other words, patients with CTH who are referred to a psychiatric clinic prefer to deny possible psychiatric comorbidity more frequently, and therefore the chances of successful headache treatment decrease.

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**Author Contribution:** MHO: Concept, design, data collection and processing, literature review, analysis and interpretation, writing the study; GG: Design, data collection and processing, literature review.

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