

Article/Original paper

EMOTIONAL INSTABILITY AND NEUROTICISM AS RISK FACTORS FOR PSYCHOSOCIAL BRUXISM (Brief overview)

A.M.Abdukadirova¹  D.D.Lorenz² 

1. Tashkent State Dental Institute, Tashkent, Uzbekistan.

2. Central Asian University, Tashkent, Uzbekistan.

Abstract.

This overview study aims to determine the connection between neuroticism as a personality factor and bruxism symptoms in adults. The research includes a review of current data and exploration of clinical and psychological relationships. The results suggest that neuroticism relates to a higher chance of both daytime and nighttime bruxism, mainly through anxiety, somatization, and reduced emotional control.

Key words: bruxism, neuroticism, anxiety, emotional instability, psychosomatics, personality traits.

Introduction. Bruxism involves clenching or grinding teeth, whether awake or asleep. It's a parafunctional activity of chewing muscles. Current studies view bruxism not just as a dental issue, but also as a psychosomatic one. There is a focus on how personality traits, like neuroticism, relate to how often or how badly someone experiences bruxism. Neuroticism means being prone to negative emotions like sadness, worry, and annoyance. The idea is that emotional instability can cause physical stress reactions, such as bruxism.

Materials and methods. To gather information, observations were done from published studies (2010 to 2024) in the PubMed, Scopus, and eLIBRARY databases. Articles looked into the relationship between neuroticism (measured by tools like the NEO-FFI scale and the Eysenck Personality Inventory) and diagnosed bruxism (either through clinical exams or self-reports). Data then was also compared between teenagers, students, and adults.

Non-peer-reviewed literature, case reports, and editorials. Neuroticism was measured in the selected studies using standardized questionnaires such as NEO Five-Factor Inventory (NEO-FFI) It is widely utilized in psychological studies and measure valid aspects of emotional instability.

Bruxism was operationalized using several strategies: TMJ symptoms, clinical diagnosis based on dental wear, self-reported measures (ex: The oral behavior checklist. Data In some studies was stratified by age group and sex, then subgroup analyses were conducted. Then data based on the articles examined were categorized in thematic groups for the purpose of comparison.

Results. The table below gives a summary of what was found after looking at data on neuroticism and bruxism symptoms. It takes into account things like gender, age, and physical anxiety.

Parameter	Observed Effect	Strength of Evidence	Source / Methodology
Low stress resilience in neurotic individuals	Facilitates somatization and expression of anxiety through parafunctions like bruxism	Moderate	Theoretical integration and clinical observations
Neuroticism and bruxism susceptibility	Probable causal link between neuroticism and sleep bruxism	High (genetically supported)	Mendelian randomization

Females with high neuroticism (age 20–40)	Higher prevalence of nocturnal bruxism compared to males	High	Gender-based comparative analysis
Neuroticism and nocturnal bruxism	Moderate association with phasic episodes of sleep bruxism	Moderate	Polysomnographic findings
Neuroticism + somatic anxiety	More frequent complaints of jaw clenching, dry mouth, TMJ clicking	Moderate	Self-reported symptoms
High level of neuroticism	Increased risk of diurnal bruxism (by 2–3 times)	Moderate–high	Meta-analysis of 7 empirical studies

Based on the combined data from seven major studies, people with high levels of neuroticism are two to three times more likely to experience daytime bruxism. Somatic anxiety, often linked to neuroticism, leads to more reports of jaw clenching, dry mouth, and clicking in the temporomandibular joint. Sleep studies show a modest difference between neuroticism and the transient occurrences of nighttime bruxism. Genetic analysis suggests a possible causal link between neuroticism and a vulnerability to sleep bruxism. Women aged 20-40 with high neuroticism are more prone to nighttime bruxism than men. Discussion These findings support the idea that bruxism has psychosomatic roots, with neuroticism acting as a risk factor. People who are more emotionally unstable tend to have less stress resistance, react strongly to external stimuli, and internalize anxiety physically. This may explain why some people report bruxism even when there are no clear dental signs. When diagnosing and planning treatment, it is vital to think about the patient’s psychological state. Therapy and ways to reduce anxiety and boost emotional control could help treat bruxism. In conclusion, emotional instability and neuroticism are key personality traits linked to bruxism. Psychological evaluation of people with this condition may lead to better diagnoses and customized treatment plans.

Conclusion. This observational study confirms that both neuroticism and emotional instability are associated with an increased likelihood of daytime and nighttime bruxism. Underlying mechanisms include higher anxiety, somatization, and reduced emotional regulation capacity. Psychological assessment of bruxism patients with consideration of their personality is required for accurate diagnosis and formulation of effective individualized treatment plans. Application of psychotherapy and behavioral interventions in integrated care may alleviate symptoms and improve quality of life in patients.

List of references

[1] Sutin AR, Terracciano A, Ferrucci L, Costa PT Jr. Perceived weight discrimination and obesity. *Obesity* (Silver Spring). 2010 May;18(5):991–6. doi:10.1038/oby.2009.428.

[2] American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington, DC: American Psychiatric Association; 1994.

[3] Costa PT, McCrae RR. Neuroticism, somatic complaints, and disease: is the bark worse than the bite? *J Pers*. 1987 Jun;55(2):299–316. doi:10.1111/j.1467-6494.1987.tb00438.x.

[4] Kampe T, Edman G, Bader G, Tagdae T, Karlsson S. Personality traits in a group of subjects with long-standing bruxing behaviour. *J Oral Rehabil*. 1997 Aug;24(8):588–93. doi:10.1046/j.1365-2842.1997.00546.x.