

Introduction

Bruxism is a masticatory muscle activity that is characterized by repetitive or sustained tooth contact, and/or by bracing or thrusting of the mandible. The condition can affect children, adolescents, and adults. The etiology is multifactorial and can occur during the day (awake bruxism) or at night (sleep bruxism). There are several associated risk factors associated with bruxism in children. Bruxism is not considered a disorder, but it may be a sign of a disorder in some.

Purpose

The purpose of this study was to evaluate the prevalence of bruxism and associated factors in children from zero-to twelve-year-olds at Saint Louis University Center For Advanced Dental Education Pediatric Dental Residency.

Methods

A representative cross-sectional study was conducted with a sample of 50 children at Saint Louis University during their periodic examination. Data acquisition involved a survey for the parents, and a clinical examination. All data was analyzed using a 2-sample test for equality of proportions with continuity correction. 16 questions were provided to the parents regarding possible bruxism, and a clinical examination was conducted for probable bruxism.

Results

No significant difference in the proportion of yes responses to questions between participants with bruxism, and participants without bruxism.

We found 5 of 28 patients with unremarkable medical history (18%) had bruxism while 5 of 13 patients with significant history had bruxism (38%). No statistical difference was found between the proportions ($X^2 = 1.0792$, $df = 1$, $n_1 = 28$, $n_2 = 13$, $p = 0.2989$).

When testing medication, we found 3 of 10 patients taking medication (30%) showed signs of bruxism, while 7 of 31 patients not taking medication (23%) showed no signs of bruxism. No statistical difference was found between the proportions ($X^2 = 0.0026665$, $df = 1$, $n_1 = 31$, $n_2 = 10$, $p = 0.9588$).



Conclusion

1. In the present study, the prevalence of bruxism was 24-52%.
2. The risk factors tested for in this study are not associated with bruxism in children at Saint Louis University.
3. Risk factors involved with bruxism have been identified in past literature, which supports the idea that pediatric dentists should screen their patients regularly for signs of bruxism. If bruxism and an underlying medical condition is suspected, the pediatric dentist should make the appropriate referral.
4. There is still much needed research on identifying risk factors associated with bruxism in children, and how to diagnosis and treat the condition.
5. There is still much needed consensus on the definition of bruxism, and the terminology used to describe it as being a behavior, disorder, condition, parafunctional habit, oral habit, protective factor, and/or a risk factor.

References

References are available upon request.