



# TEMPOROMANDIBULAR DISORDER IN PATIENTS WITH AUTISM SPECTRUM DISORDER



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## Introduction

### Temporomandibular Disorders (TMD):

- **Involve:** Masticatory muscles, temporomandibular joints, and associated structures [1].
- **Symptoms:** Pain, joint sounds (clicking, popping), and abnormal jaw movement [1, 2].
- **Prevalence:** Affects approximately 5-12% of the general population [2].

### Autism Spectrum Disorder (ASD):

- **Definition:** Neurodevelopmental disorder characterized by social communication deficits, repetitive behaviors, and atypical sensory responses [2].
- **Statistics:** Impacts around 1.7% of U.S. children, with severity levels delineated by the DSM-5 [2].
- **Oral Health:** Exhibits a higher incidence of oral parafunctions and bruxism compared to the general population [2].

### Interrelation of TMD and ASD:

- **Behavioral Impact & Risk:** Higher prevalence of bruxism in ASD leads to increased stress on temporomandibular joints, elevating TMD risk [2].

### Psychiatric Comorbidities Impacting TMD in ASD:

- **Influence of Mental Health:** Anxiety and depression heighten TMD risk [3].
- **Genetic Evidence:** Major depressive disorder and panic disorder increase TMD risk by up to 96% and 11%, respectively [3].

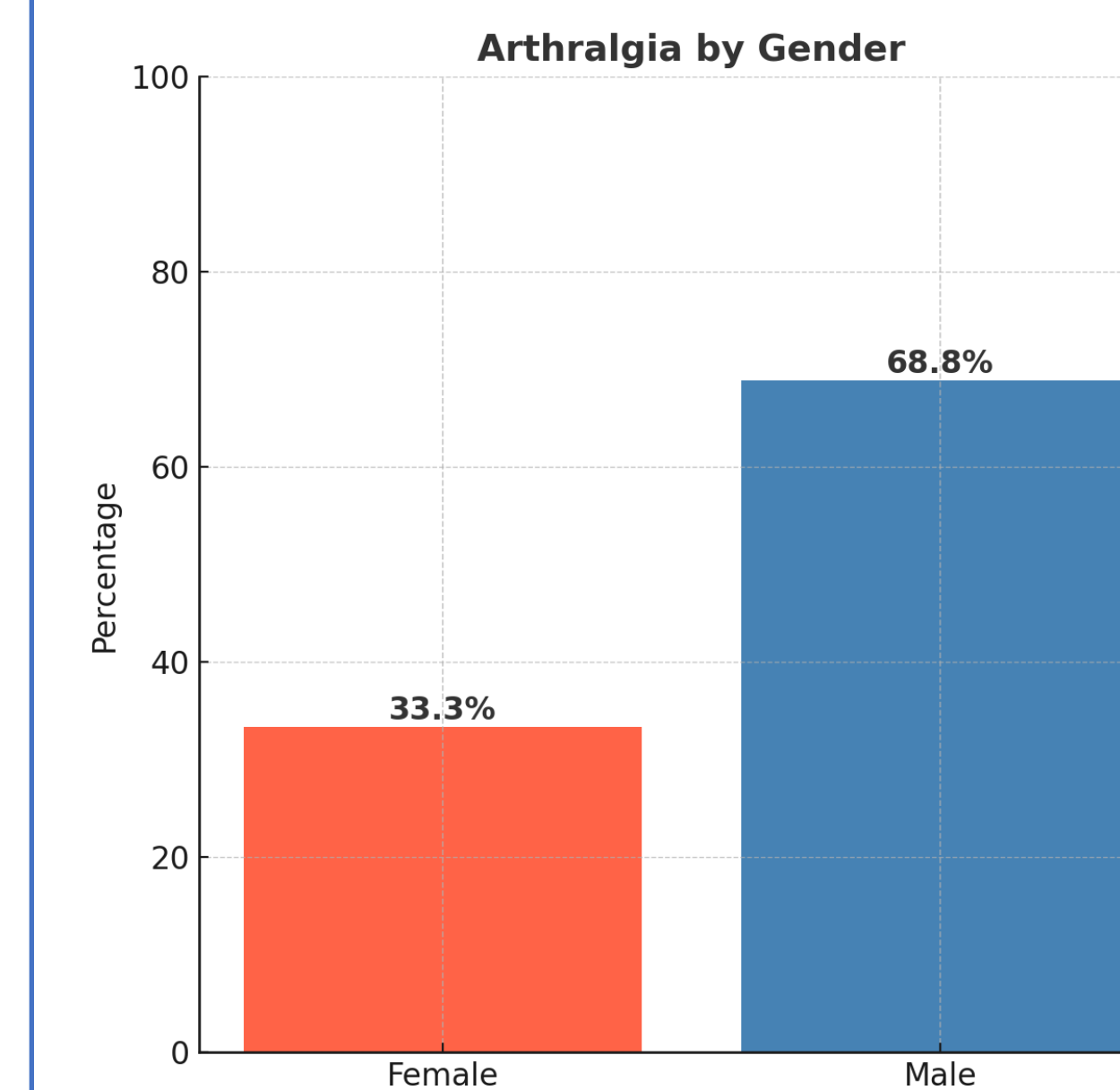
### Research Objectives:

- **Aim:** Determine the prevalence of TMD and related behavioral habits in 22 patients with ASD.
- **Goal:** Advocate for multidisciplinary approaches for better diagnostics and treatment.

## Methodology

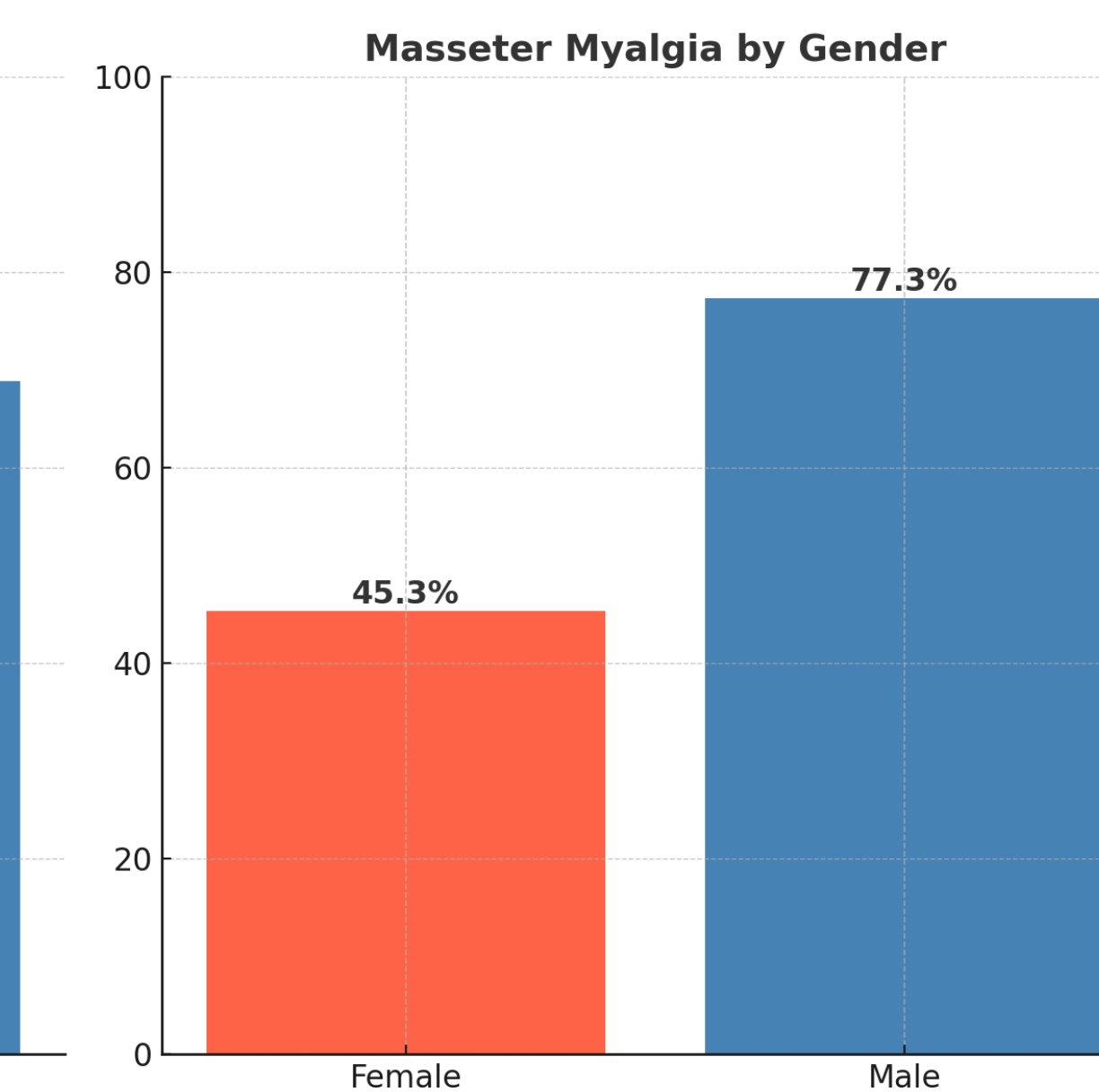
- **Procedures:** Utilized the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) for anamnesis and clinical examinations.
- **Settings:** Assessments conducted at Alternativa and Apae Luan Muller Schools.
- **Data Analysis:** Compiled demographic and clinical data into tables and graphs, highlighting age, gender, symptoms of arthralgia, myalgia, and scales of parafunction, jaw limitation, depression, and anxiety.

## Results



### Arthralgia:

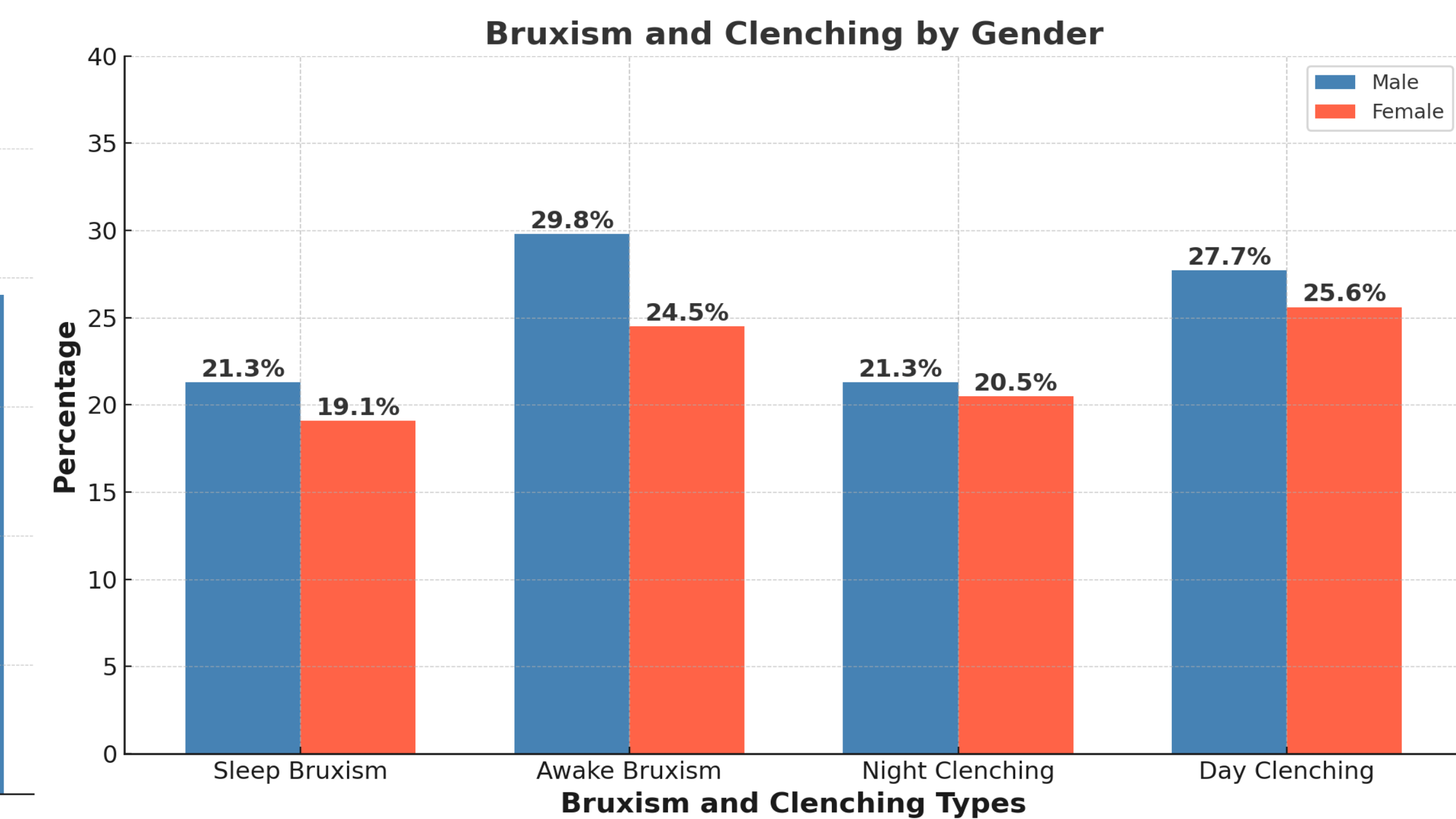
68.8% Males  
33.3% Females



### Masseter Myalgia:

77.3% Males  
45.3% Females

\*Insomnia/Difficulty Sleeping: 40.9%



### Bruxism & Clenching:

**Sleep Bruxism:** 21.3% Males, 19.1% Females  
**Awake Bruxism:** 29.8% Males, 24.5% Females  
**Night Clenching:** 21.3% Males, 20.5% Females  
**Day Clenching:** 27.7% Males, 25.6% Females

## Conclusions

**The association between TMD and ASD highlights the need for tailored interventions and individualized therapy.**

**ASD has a higher prevalence of parafunctional habits and TMD compared to the general population.**

**The multifaceted nature of ASD, including health conditions, genetic factors, and daily habits, necessitates a multidisciplinary approach to effectively address the complexities of care.**

## References

1. Xiang Y, Song J, Liang Y, Sun J, Zheng Z. Causal relationship between psychiatric traits and temporomandibular disorders: a bidirectional two-sample Mendelian randomization study. *Clin Oral Investig.* 2023;27(7513):7521. doi:10.1007/s00784-023-05339-x.
2. Winocur-Arias O, Amitai BC, Winocur E, Shmuly T, Grinstein Koren O, Reiter S. The prevalence of bruxism and oral parafunction activities among Israeli juveniles with autism spectrum disorder: A preliminary study during the COVID-19 pandemic. *CRANIO.* 2023. doi:10.1080/08869634.2023.2277618.
3. Wu X, Li Z, Cui Y, Yan Z, Lu T, Cui S. Neurodevelopmental disorders as a risk factor for temporomandibular disorder: evidence from Mendelian randomization studies. *Front Genet.* 2024;15:1365596. doi:10.3389/fgene.2024.1365596.

