

# COVID-19 Infection Does not Worsen Symptoms of Temporomandibular Disorders

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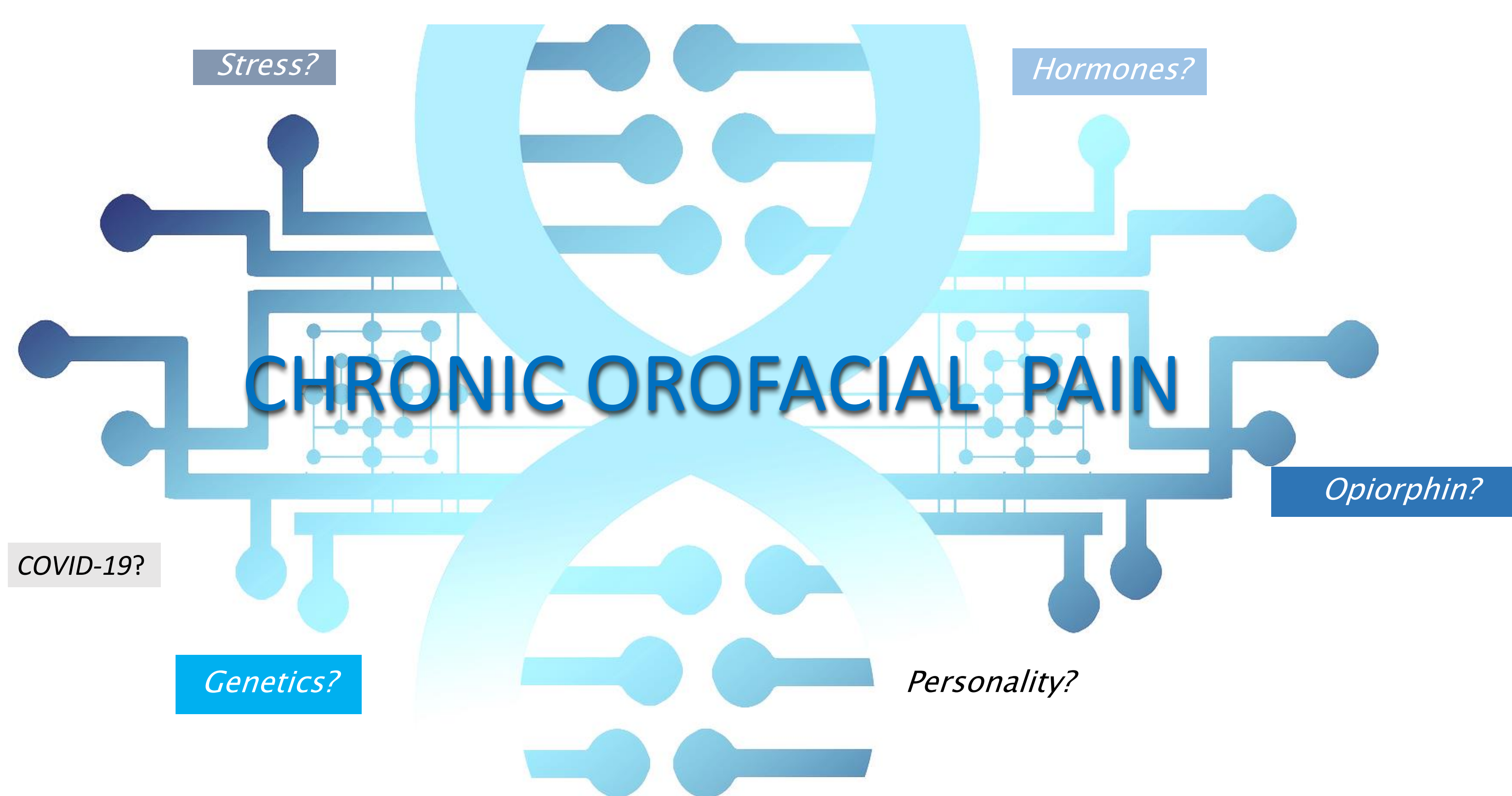
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Research Project:  
**Genetic polymorphisms and their association with temporomandibular disorders**  
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# Covid-19 Infection Does Not Worsen Symptoms Of Temporomandibular Disorders

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## PARTICIPANTS PROFILE

Response rate = 63.98%

Age mean (SD)	33.82 (11.68)
Sex	
Male, n (%)	6.72%
Female, n (%)	93.28%
Education	
Elementary/High school	25.2%
Attending University	21%
Higher education	53.8%
COVID-19 status	
Was infected, n (%)	57.98%
Non infected, n (%)	42.02%
Vaccinated, n (%)	73.94%
Non vaccinated, n (%)	26.06%

## OBJECTIVES

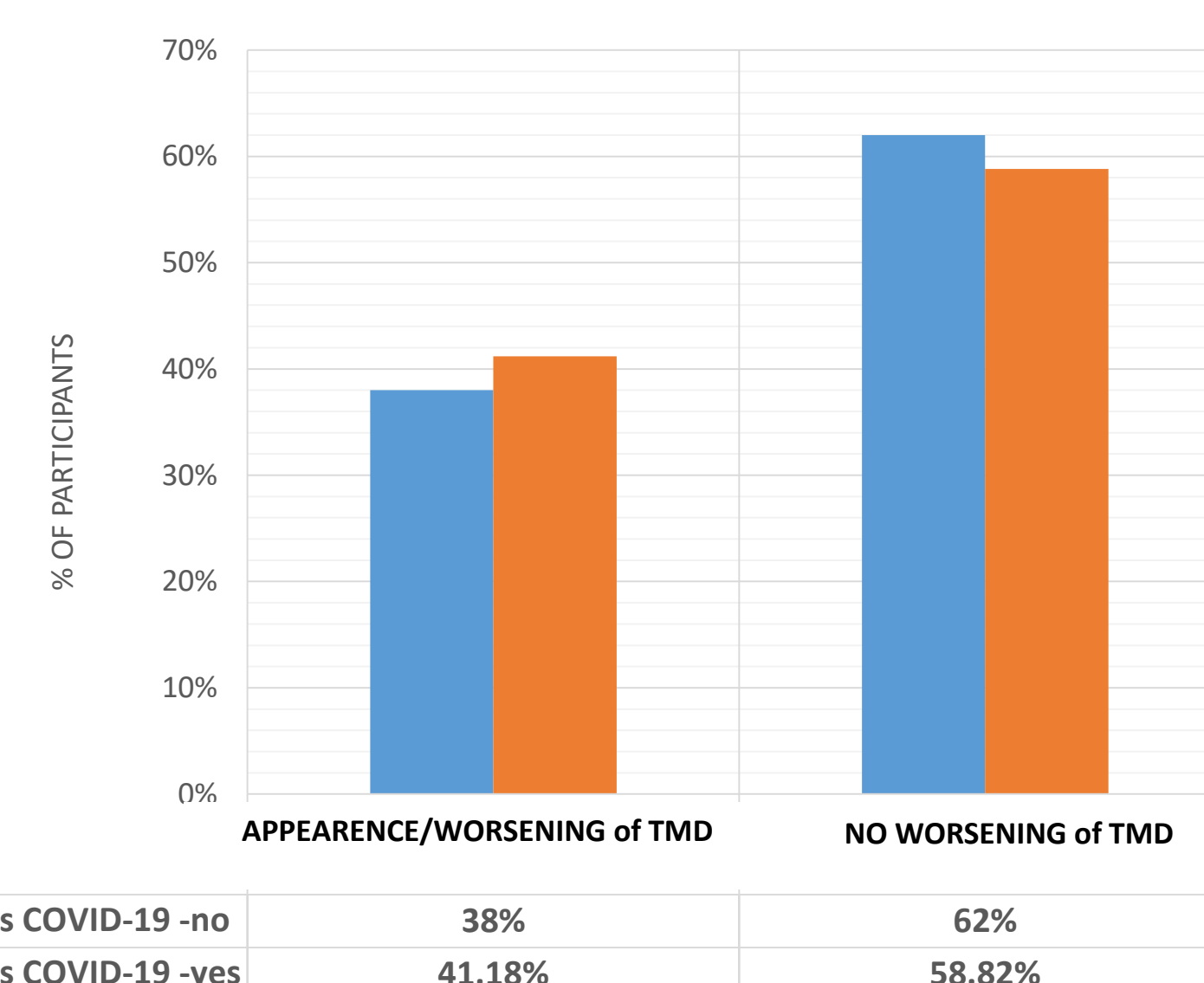
We aimed to investigate whether symptoms of temporomandibular disorders (TMD) and oral behaviors may have increased in TMD patients during the two years of the COVID-19 pandemic. This relationship may be a consequence of the infection itself, or due to psychological stress that a pandemic period might cause in general.

## MATERIALS AND METHODS

An online survey was sent to our cohort of 186 previously diagnosed TMD patients (DC/TMD). The questions in the survey addressed the possible TMD symptoms and oral behavior changes during the past 2 years of the COVID-19 pandemic, and patients' tendency to feel depressive or anxious during the pandemic. We compared the obtained data between those that previously had COVID-19 diagnosis and those that weren't infected. The Chi-square test and Spearman's correlation were used for data analysis.

*No correlation was present between symptoms of anxiety/depression and previous COVID-19 diagnosis ( $p>0.05$ )*

**No significant difference in % of participants with reported new TMD symptoms between those that previously had COVID-19 diagnosis and those that weren't infected ( $p>0.05$ )**

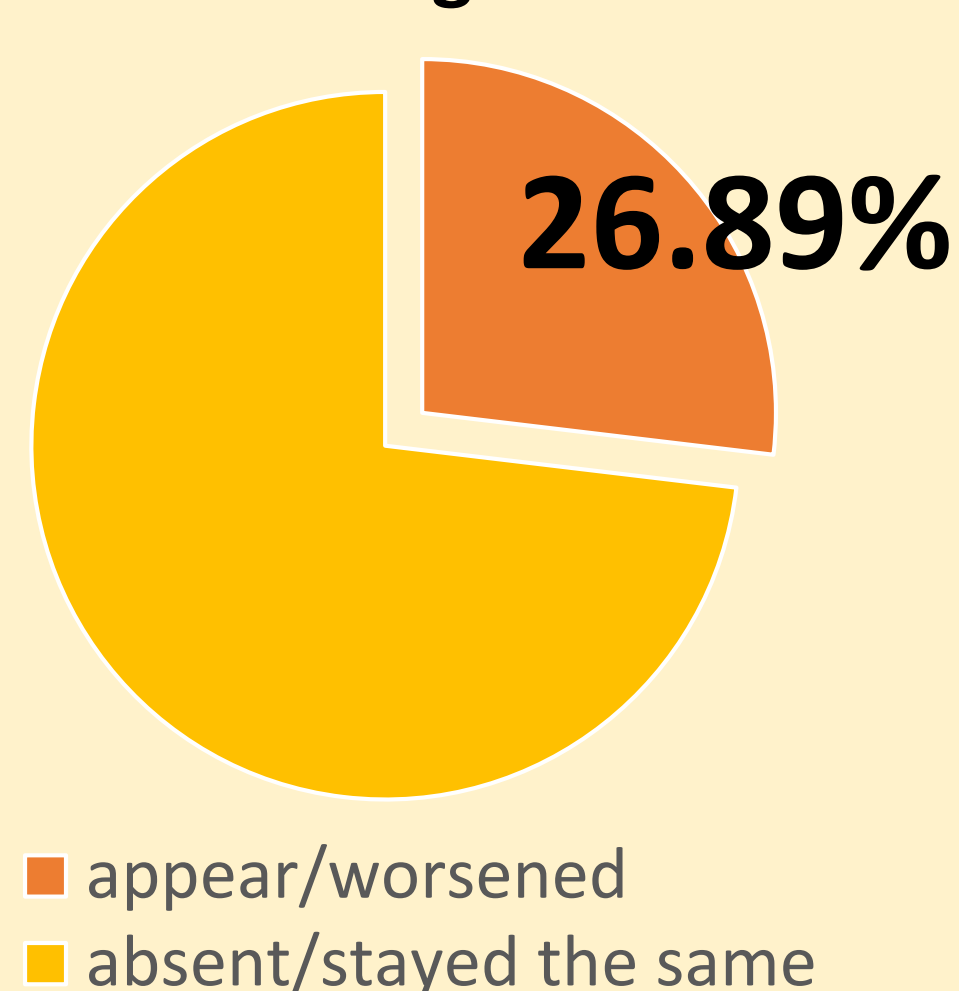


## RESULTS

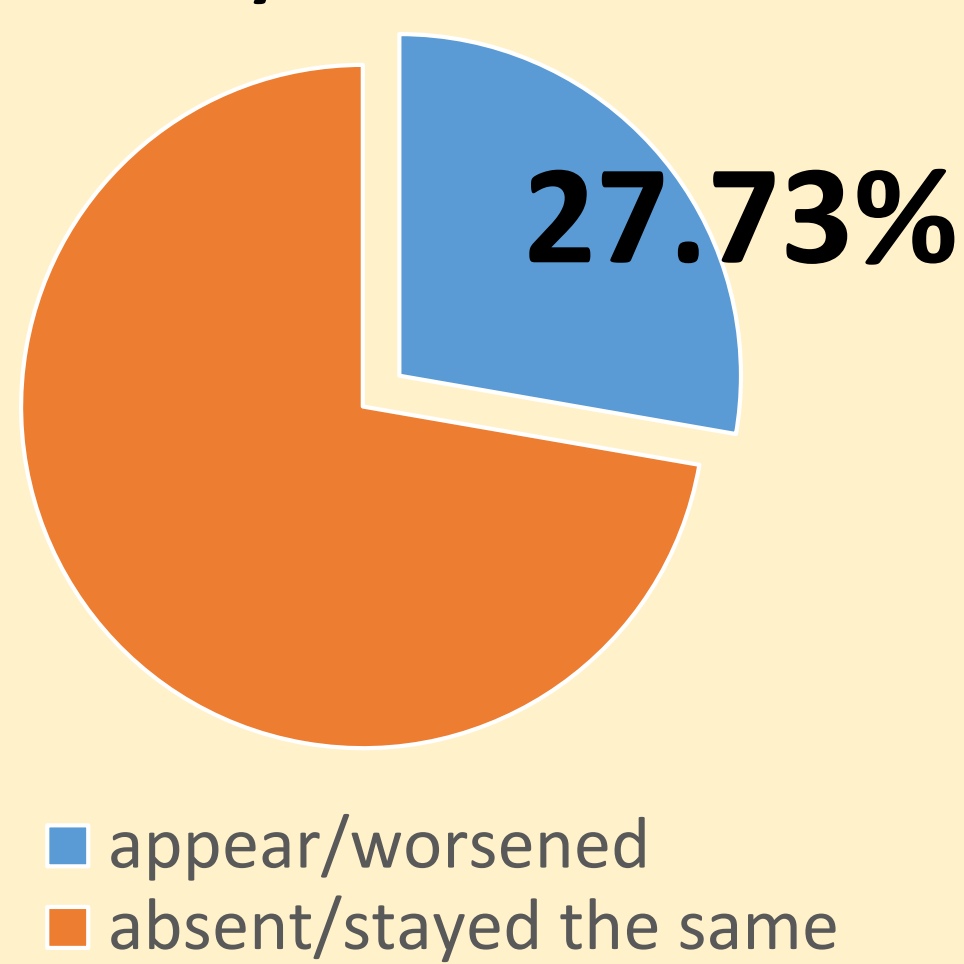
*40.33% participants developed new TMD-related symptoms or TMD symptoms worsened*

**Increase in behavioral habits during pandemic**

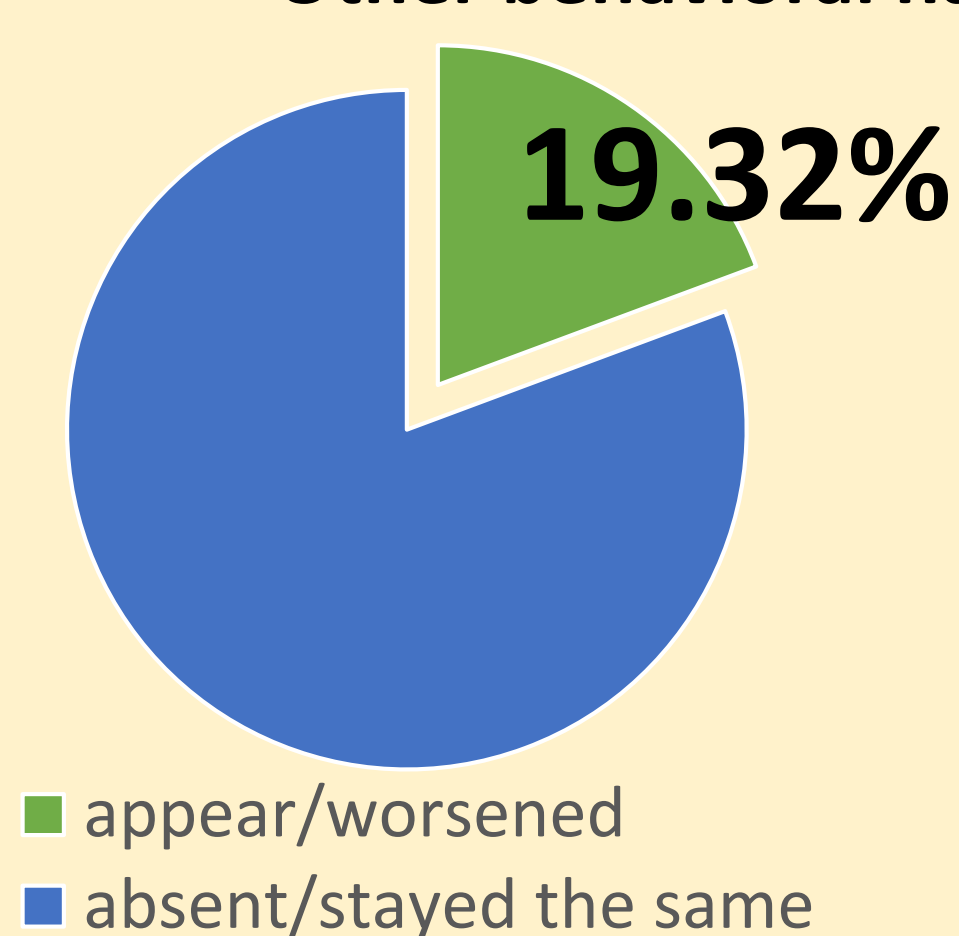
**Nighttime behavioral habits**



**Daytime behavioral habits**

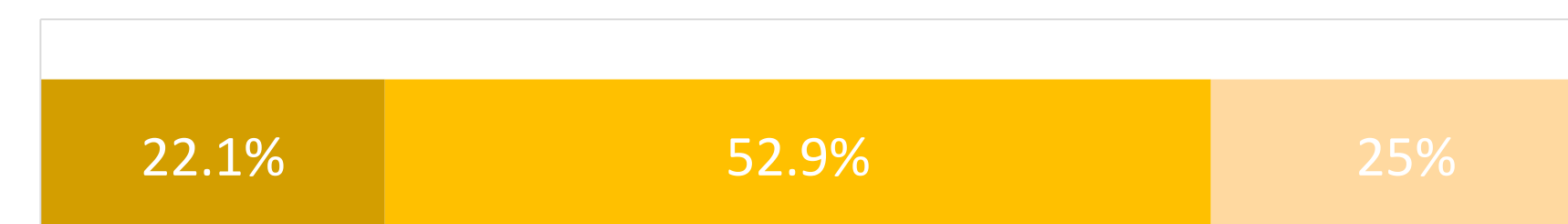


**Other behavioral habits (nail, lip, cheek biting)**

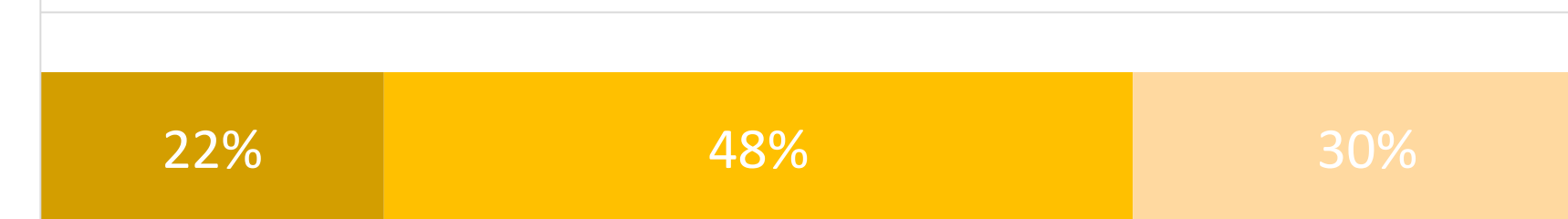


There weren't significant differences in % of participants with reported new/worsened oral behaviors between those that previously had COVID-19 diagnosis and those that weren't infected ( $p>0.05$ )

PREVIOUS COVID-19 - NO



PREVIOUS COVID-19 - YES

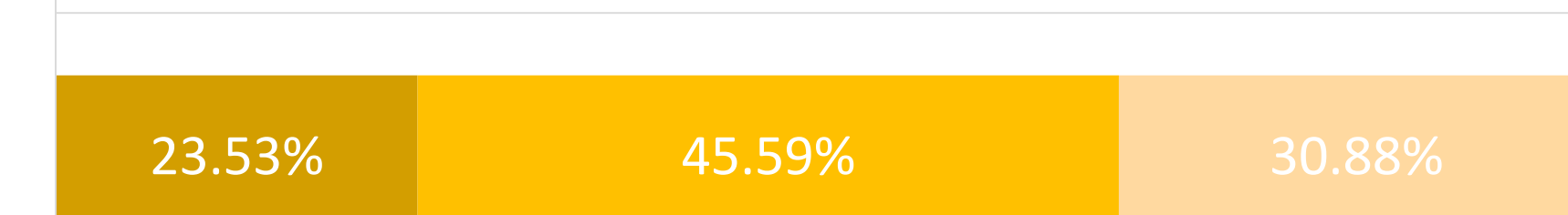


■ never had nighttime habits ■ nighttime habits same ■ nighttime habits worsened

PREVIOUS COVID-19 NO



PREVIOUS COVID-19 YES



■ never had daytime habits ■ daytime habits same ■ daytime habits worsened

## CONCLUSION

In a certain amount of participants, TMD symptoms or/and OB worsened during the period of the COVID-19 pandemic. However, the previous COVID-19 diagnosis wasn't associated with the development of new or worsening of existing TMD symptoms or OB. The cause of the worsening of TMD symptoms and OB during the pandemic is likely a consequence of stress caused by the pandemic in general.

## REFERENCES

Vrbanić E, Alajbeg IZ, Alajbeg I. COVID-19 pandemic and Zagreb earthquakes as stressors in patients with temporomandibular disorders. Oral Dis. 2020 ; Emodi-Perlman A, Eli I, Smardz J, Uziel N, Wieckiewicz G, Gilon E, Grychowska N, Wieckiewicz M. Temporomandibular Disorders and Bruxism Outbreak as a Possible Factor of Orofacial Pain Worsening during the COVID-19 Pandemic-Concomitant Research in Two Countries. J Clin Med. 2020