

# How has the COVID-19 pandemic affected treatment in individuals with OSA?

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## Introduction

The COVID-19 pandemic has rapidly spread across the globe, disrupting lives and undermining sleep, psychological and physical health. Social distancing, physical isolation and suspension of many clinical services may complicate the already prevalent underdiagnosis of OSA and potentially delay treatment for those who have been diagnosed.

The healthcare and clinical outcome data generated from this research is designed to assess the impact of COVID-19 on sleep disorders diagnosis, treatment and mental health.

## Participants

We administered the COVID-19 Impact on Sleep and Health interview to our existing longitudinal study cohort of 80 primary care patients who had been diagnosed with OSA eight years previously.

- **OSA Group:** 60 participants (n=60; 35 women, 25 men; mean age=54.3, SD=8.3) were diagnosed with OSA;
- **Control Group:** 20 participants (n=20; 15 women, 5 men; mean age= 56.8, SD=8.2) did not have OSA.

## Measures & Procedures

- **Polysomnography (PSG)** - at baseline (2012-2013)
- **Level 3 Sleep study** - 8 years later (2020-2021)
- **COVID-19 Impact on Sleep and Health Interview.**

The following measures were administered at 3 previous testing times throughout the last 8 years.

- **Sleep Questionnaire**
- **Sleep Symptom Survey**
- **SF-36**
- **Insomnia Severity Index**

Participants diagnosed with OSA at baseline were prescribed treatment and were re-contacted by phone after 8 years, during the pandemic, to complete the *COVID-19 Impact on Sleep and Health Interview* to evaluate:

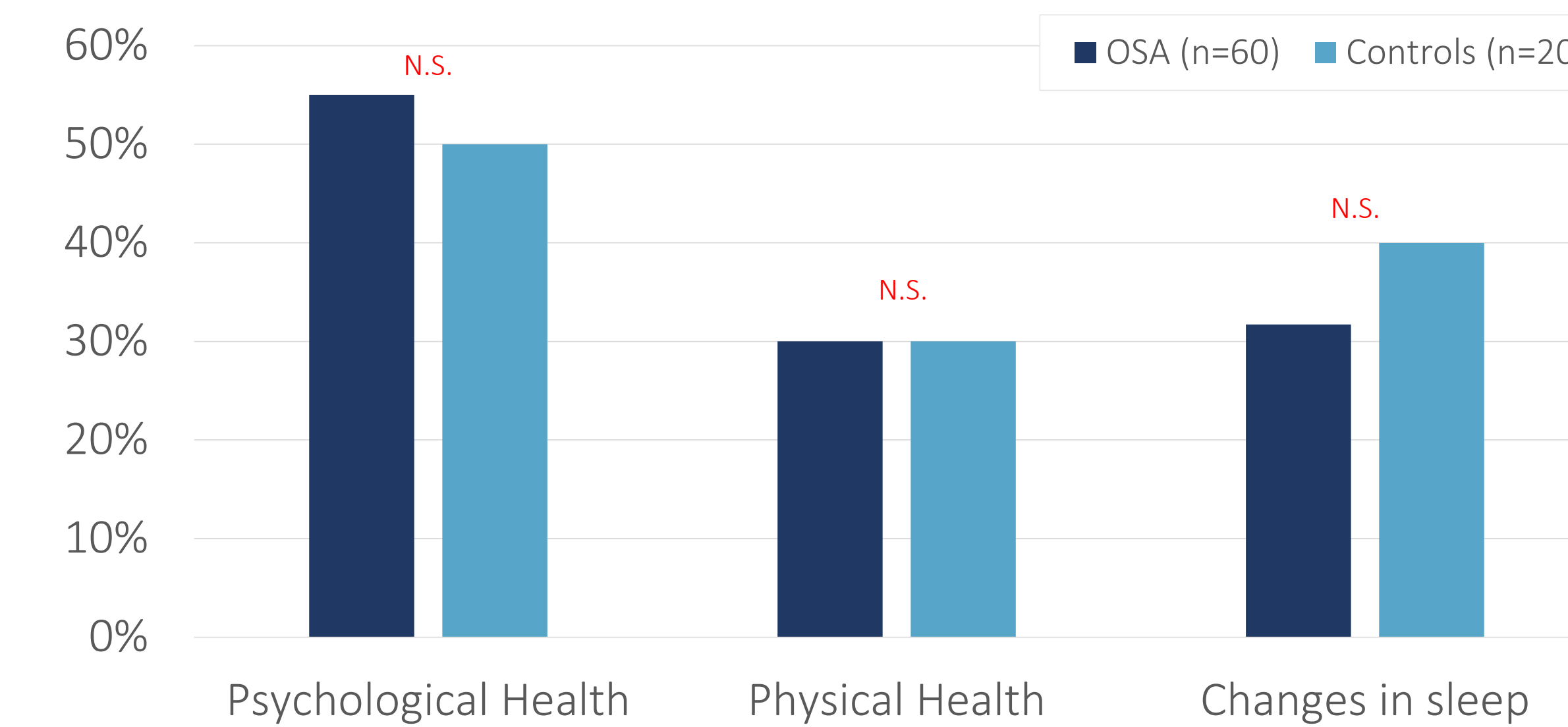
- psychological health
- physical health
- changes in sleep

The COVID-19 interview assesses the impact of the pandemic with questions related to sleep, sleep disorder treatment of participants with OSA, and overall health by telephone interview.

The interview also assesses adherence to treatment. Participants were considered adherent if they used their treatment every night. Responses reported in these analyses are dated between December 2020 and March 2021.

## Results

Self-reported comparisons showed that 55% of the OSA group and 50% of the Control group reported changes in psychological health (anxiety, stress, depression); 30% of the OSA group and 30% of the Control group reported changes in physical health (weight gain, hypertension, diabetes mellitus, etc.); and 31.7% of the OSA group and 40% of the Control group reported changes in sleep (increased sleep fragmentation, delayed sleep, etc.).



Self-reported adherence to CPAP or oral appliance treatment rates did not change. Adherence did not show differences on sleep and health outcomes. Most participants with OSA did not report a need for treatment revisions but were offered telehealth appointments when needed (n=3). None of the participants contracted COVID-19.

Our findings showed that individuals who were enrolled in a treatment program did not show significant differences on health outcomes, treatment trajectory or mental health. Individuals enrolled in the study who were not recommended treatment (e.g. mild OSA) showed more difficulty adjusting to the social changes due to the pandemic (i.e. anxiety, insomnia);  $\chi^2(1, N = 80) = 5.09, p < .05$ .

## Conclusions

- Since the COVID-19 pandemic, participants who were previously diagnosed with OSA did not experience a change in treatment trajectory;
- Accessibility to care through telehealth was expedient and convenient. Those who were not already undergoing treatment for OSA experienced more psychological maladjustment and insomnia-related symptoms.
- Accessibility to medical care for sleep disorders may be more difficult for those who not already enrolled in a treatment plan.

## Acknowledgements

We thank the *American Academy of Dental Sleep Medicine* and the *Canadian Institutes of Health Research* for funding this project.