

Prevalence of sleep disorders in individuals who had COVID-19 in the Greater Vitória Region – Espírito Santo

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Abstract. One of the consequences of COVID-19, which still negatively influences quality of life, is sleep disorders, which involves a set of conditions that affect restful sleep. The objective of this study is to identify the prevalence of sleep disorders in individuals diagnosed with COVID-19 in the Metropolitan Region of Vitória-ES. 142 individuals who had COVID-19 in 2023 were interviewed by telephone. The sample was characterized in terms of sociodemographic, economic, behavioral profile and health condition. Sleep disorders were assessed using the Pittsburgh scale. The results showed that 51.1% of the population suffers from sleep disorders, 28.9% being severe and 46.5 being moderate. Health policies are essential to identify early signs and symptoms of sleep disorders and treat them effectively, minimizing the impacts of this condition on the health of the population.

Keywords: Sleep disorders. COVID-19. Prevalence. Long Covid.

1. Introduction

COVID-19 is considered a severe acute respiratory infection, whose clinical manifestations during the acute period of the disease have generated several challenges due to the global public health crisis. Currently, the prevalence of symptoms, characterized as Long COVID, is under discussion in the public health field, after the critical period of the pandemic, addressing general aspects of these symptoms, such as pathophysiology and coping policies.

Sleep is a fundamental biological need for physical and mental restoration and, consequently, quality of life, and can be affected

by social, environmental and cultural factors. Sleep problems have been identified not only as clinical consequences of COVID-19, but also due to social isolation, changes in sleep-wake schedule, lifestyle habits and routine, in addition to psychosocial factors.

Cognitive and sleep disorders are the most common persistent symptoms in the population after COVID-19 contamination, however, the prognosis and underlying mechanisms have not yet been elucidated.

The investigation of sleep disorders in individuals diagnosed with COVID-19 is of great relevance for the knowledge of health

professionals, since it will enable more effective action and the provision of quality treatment to patients.

Epidemiological studies are extremely important to provide indicators and contribute to the development and reorientation of public policies, improving health care for the population and, consequently, reducing the impacts of this aftershock of the pandemic. Thus, the present study aims to determine the prevalence of sleep disorders and the characteristics of the profile of individuals diagnosed with COVID-19 in the State of Espírito Santo.

2. Research Methods

This is a cross-sectional observational study conducted in the Greater Vitória Metropolitan Region, Espírito Santo, Brazil. The inclusion criteria were people aged 18 years or older who had COVID-19 confirmed by PCR-RT testing in the last three to six months prior to data collection, in the period of 2023, who were registered in the compulsory notification system of diseases of the State health surveillance, with a valid telephone contact number, who had not evolved to death, who answered the telephone call, and who agreed to participate in the research, and signed the Free and Informed Consent Form - TCLE. Individuals who did not provide information on the outcome (sleep) or who withdrew/interrupted the interview, and who were unable to understand the interview for any reason were excluded from the research. The data collection period took place between August and December 2023. Three attempts were made to contact the participants by telephone, and if this was unsuccessful, an electronic message was sent explaining the research, inviting them to participate, and requesting the best time to contact them. Data collection was conducted orally by telephone and completed by the researcher using an electronic form consisting of questions related to sleep profile and quality. The average interview time was 20 minutes. The sample was characterized according to sociodemographic, economic, behavioral, and health status profiles. The Pittsburgh Sleep Quality Index (PSQI) was used to assess sleep quality. Individuals were classified as having sleep disorders when the total score was >5 points.

3. Results

In total, 974 participants were eligible for the

study, of which 775 did not answer the call or refused to participate, 20 had already died, 11 did not respond due to some health problem, 25 did not sign the informed consent form and 1 patient was excluded for not completing the outcome data, totaling a final sample of 142 participants.

Regarding the sociodemographic profile, the average age was 45 years, and the majority (83.1%) were between 18 and 59 years old. More than half declared themselves black or mixed race (54.2%), female (59.2%), with a higher education degree or higher (56.3%), with children (65.5%) and a partner (55.6%).

Regarding the economic profile, 74.6% worked, had a fixed income with a monthly average between R\$1,320.00 and R\$2,640.00. The minority were smokers (17.6%), while alcoholism was reported by 43% of the sample. A large proportion of participants reported practicing physical activities (63.4%).

Almost all of the sample (99.3%) had completed their vaccination schedule, and 36.6% had illnesses prior to their last episode of COVID-19, with systemic arterial hypertension being the most prevalent (19.7%), followed by respiratory diseases (6.3%) and Diabetes Mellitus (4.9%). As for the symptoms related to the last episode of COVID-19 infection, the most frequent were upper respiratory tract symptoms (57.3%), fatigue or tiredness (41.5%), osteomyoarticular pain (37.8%), headache (30.1%) and fever (27.9%).

Sleep disorders were present in 51.1% of the study population, with 28.9% having severe sleep disorders and 46.5% moderate sleep disorders.

Of the 74 individuals with sleep disorders, the majority were women, brown/black, economically active, had a high level of education, children and a partner. The behavioral profile revealed that 17.6% were smokers, 37.8% were alcoholics and 62.2% practiced physical activity regularly.

The most common disease prior to COVID-19 was hypertension (24.3%) of the individuals. In addition to flu-like symptoms, people with sleep disorders had a high prevalence of fatigue, tiredness and osteomyoarticular pain, among the acute symptoms of COVID-19.

A large part of the sample with sleep disorders (81.1%) had persistent symptoms of COVID-19 or had a new symptom appear within 3 months of infection, lasting more than two months, called Long COVID. The most persistent

symptoms were: memory impairment, fatigue, tiredness and respiratory problems.

4. Conclusion

A high prevalence of sleep disorders was found in individuals reported with COVID-19 in the Metropolitan Region of Vitória, Espírito Santo, with a significant proportion being moderate and severe. This can have consequences for all aspects of these individuals' lives, affecting their quality of life, due to the lack of healthy and restful sleep.

It should be noted that sleep disorders not only impact physical recovery, but also mental health and quality of life in the long term. The entire biological process of sleep is extremely important, due to its action on the internal system, the sleep-wake process, which influences general well-being. The lack of quality sleep can affect the immune system, causing even more consequences in the individual's health.

This information is essential to guide public health strategies and specific guidelines. Thus, the importance of assessing the quality of sleep in the population becomes evident, making it necessary to map the persistence of symptoms in people who have had COVID-19, reducing the effects of these symptoms on daily activities, occupational activities and the health of the population. This research highlights the importance of integrating care with sleep quality into treatment strategies for patients recovering from COVID-19, ensuring integrated and effective care.

5. References

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