

To How Much Noise Are We Exposing Hospitalized Elderly Patients During Sleep?

A Quanto Ruído Expomos os Idosos Hospitalizados Durante o Sono?

Keywords: Aged; Hospitalization; Noise; Sleep Deprivation
Palavras-chave: Hospitalização; Idoso; Privação do Sono; Ruído

Dear Editor,

Insomnia is a frequent problem in hospitalized patients, particularly in the elderly. This is due to several factors and some of which are potentially changeable, such as nighttime noise.¹ The World Health Organization recommends that nighttime noise levels in a ward should not exceed 30

dB LAeq (average levels) and 40 dB LAm_{ax} (maximum levels) at night.² However, several studies show that hospitalized patients are exposed to higher noise levels than recommended,^{3,4} which leads to worse sleep quality and, consequently, an increasing number of health complications - greater use of hypnotic / sedative medication, prolonged hospital length of stay, less ability for rehabilitation or recovery from acute illness.² Some studies suggest that staff noise is the major source of noise, and that many staff and machine noise events could be mitigated or eliminated.⁴

We performed an exploratory study in order to evaluate the effect of nighttime noise using a smartphone app (Apple iOS, Decibel X)⁵ in the ward hallway. After six hours of recording (from 1am to 7am) we found Leq 51.8 dB

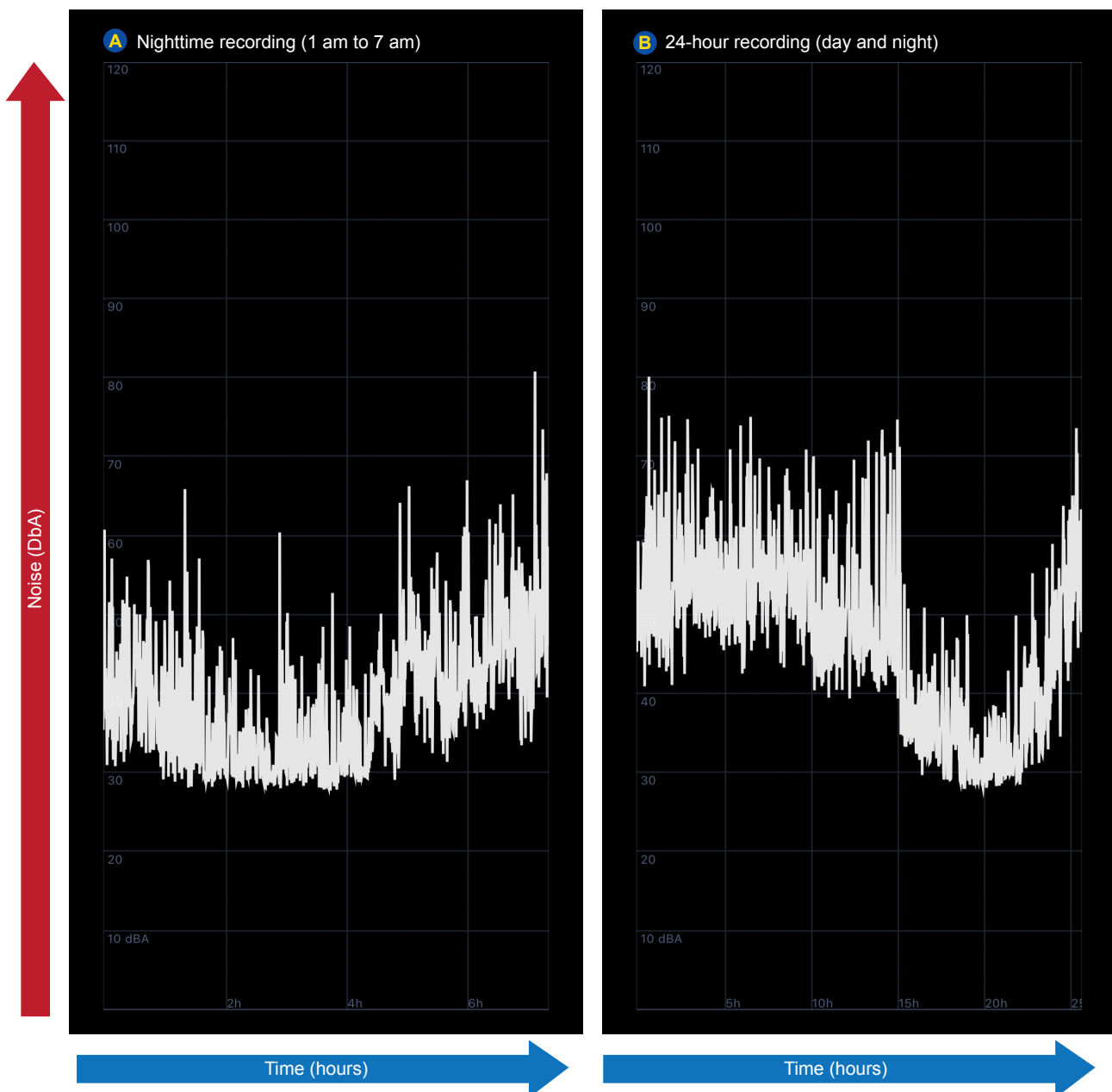


Figure 1 – (A): Average nighttime noise (from 1 am to 7 am); (B): Average 24-hour noise (from 9 am to 9 am of the next day).

(LAmin 27 dB and LAmáx 85.4 dB) – Fig. 1A. The 24-hour recording (from 9 am to 9 am of the next day) found a Leq 60.6 dB (LA min 27.2 dB and LAmáx 102.0 dB) – Fig. 1B. Ethics approval was not required for this study, since no personal information was collected.

The recording of 24-hour noise shows a substantial reduction from daytime to nighttime noise; however, this also highlights that there is substantial daytime noise in the ward, which is potentially uncomfortable and inadequate to an elderly patient with acute medical illness. As for daytime noise, the World Health Organization recommends that the LAeq level should not exceed 35 dB in most rooms in which patients are being treated.

Although these results are exploratory and preliminary, they do suggest that daytime and nighttime noise and its consequences in patient health should be further studied, and awareness should be raised to this potential problem.

We consider that educational sessions could reduce daytime and nighttime noise and improve sleep quality among hospitalized patients. Therefore, we intend to evaluate the effectiveness of a protocol for non-pharmacological treatment of insomnia, which includes nighttime noise reduction.

The present project expects to have immediate effects in terms of improving health care provided to hospitalized patients, mostly elderly, where the improvement in sleep quality has multiple benefits. This could be the first step of a

larger project focused on an ‘elder-friendly hospital’, where it is essential to raise awareness to this and other geriatric problems among healthcare professionals.

AUTHORS CONTRIBUTION

MA: Draft of the paper.

CT, JFS, NG, TF: Critical review and approval of the final version of the paper.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients’ data publication.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

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Stigma among Physicians Towards Patients with Mental Health Disorders

Estigma em Relação aos Doentes Mentais pelos Médicos

Keywords: Attitude of Health Personnel; Mental Disorders; Physicians; Social Stigma

Palavras-chave: Atitude do Pessoal de Saúde; Estigma Social; Médicos; Saúde Mental

Dear Editor,

Recently, an interesting study regarding stigma towards mental

health in medical students¹ raised an important question that should be the subject of extended discussion within the medical community – Psychiatric stigma in healthcare providers and, particularly, medical professionals. A study led by the Canadian Psychiatric Association showed that 79% of medical providers reported a first-hand experience of discrimination against psychiatric patients and 53% reported that they observed other medical colleagues discriminating these patients.² These numbers demonstrate the magnitude of this problem. Stigmatization, defined as a “process wherein a condition or an aspect of a person is linked to some pervasive dimension of the target person’s identity” or “a mark of disgrace or discredit that sets a person aside from other”³ leads to prejudice and discrimination and inevitable negative attitudes or behaviors towards mental health patients. These negative tendencies worsen