

SEMILLA 04: Night Terrors

0. CONTACT DETAILS

0.1 Surname and first name

Alicia Silva Cátedra

0.2 Contact e-mail address

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0.3 Let us get to know you a little bit through your participation in websites, blogs, social networks, etc.

I am a person who greatly enjoys spending time in nature and with animals, as well as painting in my free time. I work at the Hospital del Rocío as a Resident Physician in Clinical Neurophysiology, where we use informatics to assist in diagnosing patients with neurological disorders.

If you would like to learn more about me and the field of Neurophysiology, feel free to contact me via email, and I will be happy to share firsthand the work we do on a daily basis.

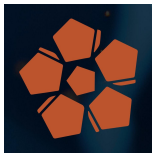
0.4 What is your background and in which institution do you work?

I hold a degree in Medicine and work for the Andalusian Health System. As I mentioned earlier, my specific area of focus is Neuroscience, with an emphasis on the diagnosis of neurological diseases.

0.5 Gender

Woman

0.6 Age range



1. ESSENTIAL DIMENSION

1.1 Seed name

Night Terrors

1.2 Seed summary

Night terrors are a type of parasomnia sleep disorder characterized by aggressive behaviors secondary to an intense sensation of fear, such as screaming, crying, hitting, running, or breaking objects, all while the person remains asleep. For this reason, even though the individual may appear to have their eyes open, they typically do not recall anything that happened (unlike nightmares).

Night terrors are more common in young children, as they often disappear with age, though they may evolve into sleepwalking in some cases. They are associated with elevated stress levels but do not pose any risk, which is why treatment is often unnecessary. In fact, waking someone during a night terror episode is not recommended, as it can leave them feeling disoriented when this phase of sleep is interrupted.

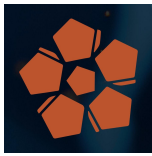
In summary, the body is awake while the brain remains asleep.

1.3 Metaphor

Imagine a young child, about 4 years old, who spends the day joyfully playing with his father, pretending to defeat monsters and enjoying the role of the hero.

However, when night falls and he goes to sleep, the game "continues" in his dreams, but in a much more dramatic way. He is still fighting monsters, but this time it is not heroism but fear that takes over. In the imagination of dreams, things are no longer under our mental control. Without voluntary limits, the monster transforms uncontrollably (becoming larger, making louder noises, etc.).

When his father wakes him upon hearing him scream, run around the room hitting objects, and cry in terror, the child remembers nothing of what happened. He falls back asleep and suffers no lasting trauma. The next morning, after happily having breakfast, he wants to play at fighting monsters again, although this time the father is reluctant to join in, having spent a sleepless night due to his child's screams.



1.4 Keywords

parasomnia, sleep disease, night terrors, neurology, neurophysiology, no REM phase, polysomnography, electroencephalogram, pediatrics, psychology, child, stress

1.5 Scientific field (general)

Medicina

1.6 Scientific subfield (specific)

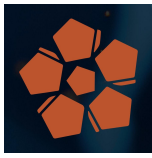
Neurofisiología Clínica

1.7 Resources (File)

1.8 Resources (Links)

- <https://www.youtube.com/watch?v=YFMqF26UTy4>
- https://www.google.es/search?sca_esv=adb58b67ff5950fb&sca_upv=1&sxsrf=ADLYWILVZ0RoUOA5yPeb8pQ6bCHac3qkYA:1727370139225&q=night+terrors+rem+or+nrem&tbm=vid&source=Inms&fbs=AEQNm0CbCVgAZ5mWEJDg6aoPVcBgWizR0-0aFOH11Sb5tINhdzTfxpAVBoexMFZnKJBpl_OnTFfcge8advfRBI_XE7C_RTEs_-6X8R5LVF1D--bqpVZGXWqd1Qn1U9x3Ln25r5qCUxR42iKYGXv9gyYYZUA1jq47YK4bvHGnTJmNSvgBED4uWuHQ&sa=X&ved=2ahUKEwju96yci-GIAxWwRaQEhX6cGEEQ0pQJegQIDxAB&biw=1536&bih=703&dpr=1.25#fpstate=ive&vld=cid:01b43599,vid:SntcJuadwSM,st:0
- https://www.google.es/search?q=night+terrors+short&sca_esv=adb58b67ff5950fb&sca_upv=1&biw=1536&bih=703&tbm=vid&sxsrf=ADLYWIKjVz1torxnzjPwVvq5rBIOI91gTQ%3A1727370285123&ei=LZT1ZvWPB_SUxc8P7KCb0AQ&ved=0ahUKEwi12vXhi-GIAxV0SvEDHWzQBkoQ4dUDCA4&uact=5&oq=night+terrors+short&gs_lp=Eg1nd3Mtd2l6LXZpZGVvIhNuaWdodCB0ZXJyb3JzIHNoY3J0MgYQABgWGB4yBhAAGBYHkjUIVDRA1i2HXAEeACQAQCYAZABoAG4CqoB_BDEuMTC4AQPIAQD4AQGYAg6gAtMKwgIIEAAYgAQYogTCAGgQABiiBBiJBclCBBAjGCfCAGUQABiABMICBxAAGIAEGBPCAggQABgTGBYYHsICBRAhGKA_BmAMAIAYBkgcENC4xMKAHrSU&scient=gws-wiz-video#fpstate=ive&vld=cid:ecab04ec,vid:GLVWTU3P-c,st:0
- <https://www.contemporarypediatrics.com/view/case-point-night-terrors>

2. ADDITIONAL DIMENSIONS



2.1 SYNAESTHETIC DIMENSION

This dimension seeks to associate certain sensory characteristics to the seed.

2.1.1 What colours does this seed suggest to you?

Black, grey, White.

2.1.2 What sounds or music does this seed inspire you?

Sounds of the street at night (a frightened cat, a kick to an empty can, approaching footsteps).

2.1.3 What aromas would you associate with this seed?

Unpleasant smells, such as garbage or sewage.

2.1.4 What flavours does this seed evoke in you?

Bitter, sour.

2.2 EMOTIONAL DIMENSION

This dimension seeks to explore the personal meaning of the seed.

2.2.1 What was your motivation to dedicate yourself to this field of research?

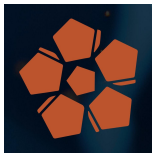
Sleep disorders are part of an interesting and underexplored field, often mistakenly associated with psychiatric issues.

What are your personal reasons to suggest this seed?

I believe it is a topic of social interest as it affects a vulnerable part of the population (children).

2.2.2 What metaphysical reflections does this seed provoke in you?

The human brain is an incredibly complex tool, and its mechanism of action is not fully understood. In particular, imagination and sleep are areas that remain especially mysterious to scientists. The ability to think about something that has not yet happened or to relive something that will never happen again deeply moves me and motivates me to continue seeking explanations for this



"superpower." I believe that humans need life goals to be happy objectives to achieve or dreams to pursue. The ability to imagine ourselves fulfilling that dream allows us to motivate ourselves and inspire our approach to achieving it, seeking paths that lead us toward it.

2.2.3 What ethical reflection or challenges would you associate with this seed?

Children are an especially sensitive and vulnerable population, as their imagination is still developing. They are the primary sufferers of this disorder, not so much because of the night terrors themselves, but due to what may be causing them. Children may express their emotions (stress or anxiety) indirectly through sleep disturbances. For this reason, raising awareness of this condition should lead us to seek the underlying cause in order to prevent the child from worsening their situation and progressing to more severe states of anxiety in the future.

2.2.4 What aesthetic dimensions does this seed suggest to you?

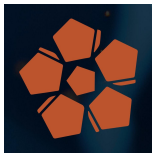
We could imagine a reflection in the water of a river, where the reality of our world is distorted by the ripples formed as the water hits the rocks. We can see ourselves, although our face loses its contour and becomes deformed. The similarity to reality makes it familiar, but the difference is evident and unsettling. A child, whose ability to distinguish between reality and imagination is still developing, might struggle to understand that it is nothing more than an optical illusion.

2.3 PROCEDURAL DIMENSION

This dimension seeks to explore the scientific processes that are usually followed when investigating this topic.

2.3.1 Description of the research process

The mother visits the primary care pediatrician, explaining that her child wakes up at night screaming and breaking things in the house, and that when she tries to wake him, the child does not remember anything and is disoriented. In severe cases or when there is doubt about whether it may be epileptic seizures, the pediatrician refers the child to Pediatric Neurology for a more specific assessment, who then refers him to Clinical Neurophysiology for evaluation at the sleep clinic. After reviewing the case, a nocturnal polysomnography is requested (a test where the patient must stay overnight at the hospital while their brain activity is monitored through an



electroencephalogram, along with other variables such as respiration, heart rate, body movements, etc.).

Since it is an NREM parasomnia, that is, occurring during the non-REM phase of sleep, which takes place in the early stages of sleep, the goal is to confirm through brain activity that these episodes align with these early sleep stages and not with later stages, such as REM sleep, where dreams typically occur. Additionally, we can rule out other pathologies, such as epileptic seizures, since brain activity in this case would show abnormal neuronal discharges. After confirmation through the medical history and the test, if the patient experiences very severe episodes (where they could suffer personal harm or cause harm to others) and these episodes are frequent, medication may be initiated.

2.3.2 Research process diagram

Primary Care Pediatrician -> NEUROPEDIATRICIAN> Clinical Neurophysiology
-> polysomnography

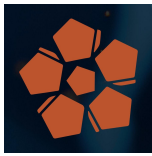
2.3.3 Link to the descriptive video of the process

2.3.4 What tools are typically used in this field of research? Whether instruments, technologies, hardware or software.

Polysomnography, Electroencephalography



3 PERSONAL SUGGESTIONS



ART ^ NEUROSCIENCES

4 INVOLVEMENT OF THE SCIENTIST IN THE CREATIVE TEAM

4.1- What role would you like to play in the co-creation process of the SciArt work?

Participate punctually in the conceptual discussion and co-creation of the work