

Intervention of Sleep Quality in The Onset of Concomitant Symptoms in Hospitalized Patients

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1. Summary

This work allows us to observe the quality of sleep and respect for circadian cycles as very important factors in the development of multiple diseases and in various specialties, which affects in the therapeutic methods, both in external and hospitalized patients and the variety of symptoms that can be observed, through a practical survey method, with the main objective of contributing to the awareness of the importance of sleep hygiene measures and their improvement in the quality of life of patients.

2. Introduction

When trying to define sleep it is inevitable to differentiate physiological characteristics in good sleep quality depending on the species, where it is a little easier to list the behavioral characteristics that are associated with the appearance of sleep and try to define it appropriately, where it can be associated with immobility and muscle relaxation, it is a reversible event (which differentiates it from other pathological states such as stupor and coma), decreased consciousness and reactivity to external stimuli and finally during sleep individuals acquire a stereotypical posture [1].

The absence of sleep induces different behavioral and physiological alterations in addition to generating a cumulative debt of sleep that must eventually be recovered. One tool that has been of vital importance for the study of sleep physiology is the electroencephalogram (EEG), which is the graphical and digital representation of oscillations shown by the electrical activity of the brain, when recorded by electrodes placed in different regions of the head.

During alert states while keeping your eyes closed in the EEG, you see oscillations of electrical activity that are usually between 8-13 cycles per second, mainly in occipital regions (alpha rhythm) within sleep occur characteristic changes of brain activity that are the basis for dividing sleep into several phases, where it is usually divided into two phases: no rapid eye movements, and with rapid eye movements, and with rapid eye movements [2].

Non-MOR sleep: Phase N1 corresponds to drowsiness or light sleep initiation, slight muscle shakes (acute vertex waves) are usually observed, phase N2 appear specific patterns of brain activity, called sleep spindle and complex k, heart and respiratory rate begins to decrease gradually, phase N3 or slow wave sleep is the deepest phase observed in the EEG very slow frequency activity (<2 Hz)

3. MOR Sleep

It is now called the R phase and is characterized by the presence of rapid eye movements, physically all muscle tone decreases. A young adult spends approximately 70-100 min in non-MOR sleep which can last between 5-30 min and this cycle is repeated every hour and a half throughout the night, therefore throughout the night can normally occur between 4 and 6 MOR sleep cycles [3].

4. Sleep Hygiene

Sleep hygiene measures are a series of recommendations about desirable behaviors and habits, as well as changes in environmental conditions and other related factors, aimed at improving the sleep quality of people who already suffer from a sleep disorder such

as insomnia, or that can be used as measures to prevent sleep disturbance [4]. Although there is no global consensus on what these sleep hygiene measures should be and some of these sleep hygiene measures are transplanted with some forms of non-pharmacological behavioral treatment in general, we can consider (avoid prolonged naps >1 hr. lies down to sleep at the same time daily, wake up at the same time all day, sleep in comfortable bed, sleep in a room with low lighting and little ambient noise) [5].

5. Epidemiology

It is estimated that, in our country, about 45% of the adult population has poor sleep quality. This is reflected in the difficulty that people have in getting up, as well as in constant drowsiness and tiredness during the early hours of the morning.

6. Method

This study uses as a basis the referent method, measuring descriptive ensues, and testing the Pittsburgh sleep quality scale where 20 hospitalized patients are evaluated at the Guadalajara Jalisco regional specialty military hospital assessing the level of sleep quality and which concomitant symptoms are added by poor sleep hygiene, February-May test period [6].

7. Justification

This research will focus on studying hygiene habits based on sleep quality in hospitalized patients, since due to work stress or hospital instances it has been seen that patients have directly modified their sleep habits by worsening the quality of life and delaying recovery in the hospital by increasing concomitant symptoms, we then propose to investigate the evolution of pathological patterns and their added symptoms [7], the reasons that led us to investigate the quality of sleep in hospitalized patients lies thanks to the increase in discomfort or sleepiness data referred by patients after staying more than 2 days hospitalized, think ores that through the detailed analysis we will be able to make health personnel awareness to improve sleep hygiene to help the early recovery of concomitant symptoms in patients who are hospitalized [8].

8. Objectives

- Clinically observe the behavior of hospitalized patients and their quality in sleep hygiene
- Intervene and prevent concomitant pathologies that are associated with poor hygienic sleep habits
- Improving the quality of life of hospitalized patients
- Awareness of the application of hygiene or good sleep habits to improve the quality of life
- Decrease the percentage of symptoms added by decreasing sleep schedules
- Locate key events or outstanding sleep quality issues

9. Statistical Population

Sampling was carried out where people of both sexes were chosen which were subjected to a descriptive evaluation through direct surveys, where a sample of 20 people with characteristics with a simple random choice type was collected, making a list of hospital participants to form the sample to be studied by means of questionnaires [9].

10. Results

A random sample is taken to conduct direct descriptive surveys at the regional military hospital in Guadalajara Jalisco where 14 females and 6 male people are taken with a percentage of 70% female and 30%male. As for the age of there is an ambiguous percentage where it is observed that 30% corresponds to people between the ages of 21 and 30 following in proportion to 15% patients aged 31 to 73 years (Figure 1). In marital status 74% of respondents are married, 11% are single, and 15% are divorced, widowed and in free union (Figure 1 and Figure 2).

The descriptive surveys did not consider situations of rightsholders in the institution where most of the reported or interviewees were right-to-haves in the asset having the majority percentage with 60% followed by military in the asset where it is denoted that most of the concomitant symptoms corresponded to anxiety and headache. (Figure 3).

Among the key questions that are characterized on the Pittsburgh scale manifests bedtime where literally 50% of the patients interviewed would like to go to bed around 10:00 pm and 11:00 pm, while the rest was distributed with 25% who regularly go to bed from 08:00 pm to 09:00 pm and the 25% after 12:00 pm (Figure 4) [10].

Continuing the variability of sleep habits and promptly asking the question about the total time it takes to fall asleep indispensable, (Figure 17) where detailed variability between each point and constant resulted in 45% of the studied population falling asleep within the first 10 minutes, while 25% is distributed in patients sleeping within the first 30 minutes and an important fact is that 15% of the patient sample lasts more than 60 minutes to fall asleep (Figure 5).

It is worth noting the relevance the time it takes people to sleep and the schedule they have to get up, since it should be noted that within the quality of sleep It is known that a young adult or should sleep an average of 7–8 hours, although this amount may vary as it depends on (Figure 16) internal and external factors of society, sea preschooler can sleep between 11 or 12 hours and an older adult between 5 and 6 hours not taking into account the period that sleep during the day, so it is of paramount importance the results in which the percentages of patients who wake up early and sleep late are focused as they begin to have functional and organic damage that are involved in their daily life , within the Pittsburgh scale it

is essential to highlight and highlight the following two patterns:

- The time when patients regularly wake up from their dreams
- A patient's total sleep hours.

In done the results having as supremacy that 40% of the population studied awakens at 7:00 am while the other 40% wake up on average between 5:00 and 6:00 am to carry out their activities, finally 15% have a short average of sleep severing between 3:00 and 4:00 am. (Figure 6).

Performing and observing an average within the sleep habits and sleep quality of patients is asked a question to evaluate the number of hours that people sleep approximately daily, taking into account their base pathologies (post-operated, chronic degenerative pathologies, concomitant pathologies), resulting in 45% of patients only sleeping 5 to 6 hours in a row compared to the schedule that a person actually needs to sleep to refer adequate sleep quality and hygiene is actually low from established parameters, while about 15% of patients who were taken as a sample sleep an average between 10 and 15 hours a day, it should be noted that these patients mentioned having psychological and psychiatric problems (Figure 15) such as depression as depression , if we recapitulate the concepts offered by the national sleep foundation 85% of the patients interviewed do not meet the criteria to define that they maintain adequate sleep health, while only 5% of patients could enter the criteria already established and mentioned (the graph below shows the number of patients and the total hours of sleep they maintain for one day) the Pittsburgh scale shows questions which are subjective processes that take relevance in the last 4 seminars, about falling asleep where 45% of hospitalized patients answer that about three times a week they are prevented from falling asleep properly (Figure 7).

And assessing the number of people and how many approximate times they get up during the evenings got results that 14 people from the interviewees get up between 2 to 3 times a week which is about 70% of patients surveyed with those bad sleep habits. For

the reasons why patients wake up, the following result was had.

Where 65% of respondents in the last month would not have suffered from feelings of shortness of air, while the number of 6 people (Figure 8) reported that three times approximately in the week, they wake up from feeling short of air corresponding to 30% of the sample investigated.

When asking indirect questions about whether their family member snored 40% I answer that they did not catch such events in the last 4 weeks while 45% corresponded to the average of 1-2 times per week snoring at (Figure 18) night which caused the patient to wake up during the night 50% of patients have not woken up overnight from cold in the last 4 weeks, and with a total of 5 patients results in 25% who woke up at least once a week from feeling cold Otherwise, 70% of patients would also be able to(Figure 9) wake up at night from feeling warm surveyed resulted in no problems such as bedtime nightmares, while the other 35% have nightmares 1 or 2 teleseminar, 30% 3 times per week, the following graph is representative of the results obtained when applying that question to the sample being investigated.

Among the data that you want to highlight in this study is the presence of pain and that type in the last 4 weeks, referring to pain as an event that (Figure 10) keeps them awake or wakes them up at night, concluding that 30% of the patients interviewed responded positively that approximately once a week I felt pain, and 35% mentioned that approximately twice a week I felt pain.

Gradual assessment of patient data resulted in 70% of hospitalized patients developing tension headache caused by poor habits or sleep hygiene, (Figure 11) adding album and even anxiety in a total of 5 more patients corresponding to another 25% of the sample studied You are asked about whether they took any medications or took them in the last 4 weeks to fall asleep where 75% denied taking sleep medication. While the other 25% I agree to have ingested medication to be able to sleep either 1 to 3 times a week the unanimous drug that 25% of patients used is clonazepam which is a benzodiazepine that acts directly in the central nervous system which can create drowsiness and tiredness.

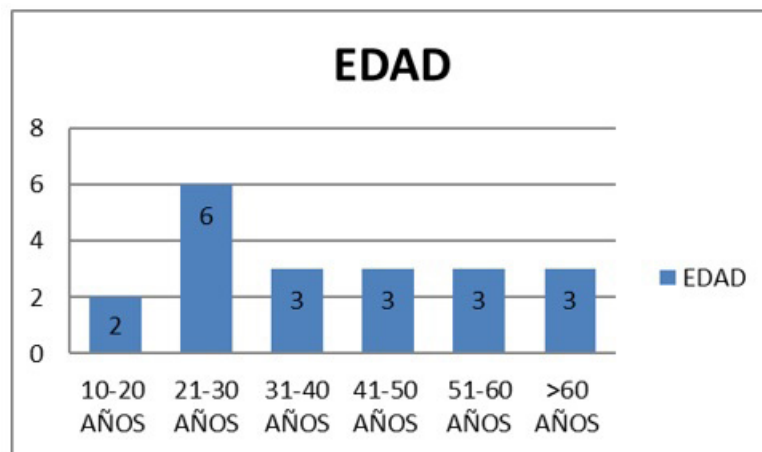


Figure 1: Age of Sample Patients

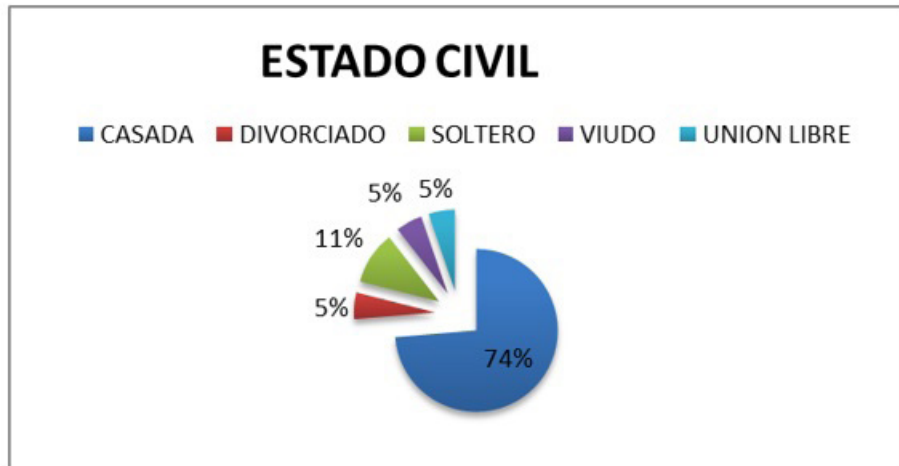


Figure 2: Marital Status

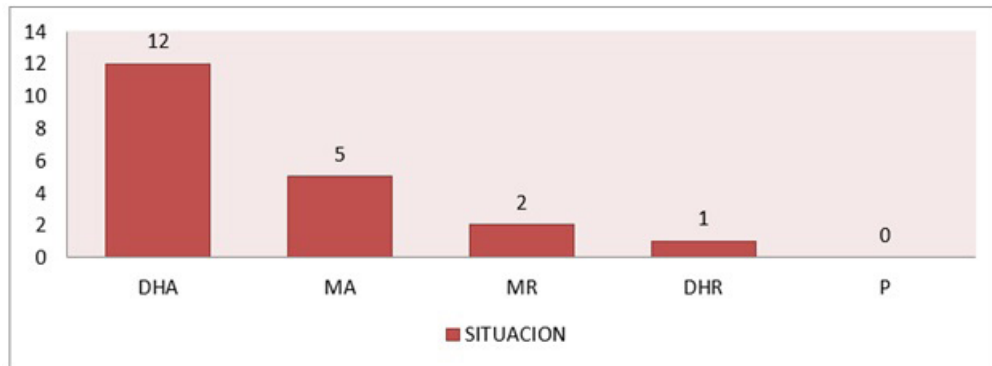


Figure 3: Social Security Situation

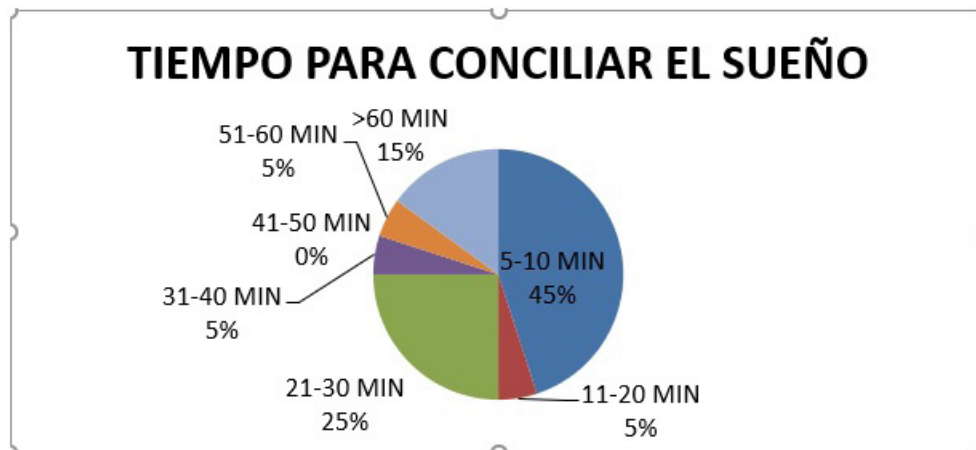


Figure 4: Time to go to bed



Figure 5: Average Waking Time



Figure 6: Total Hours of Sleep

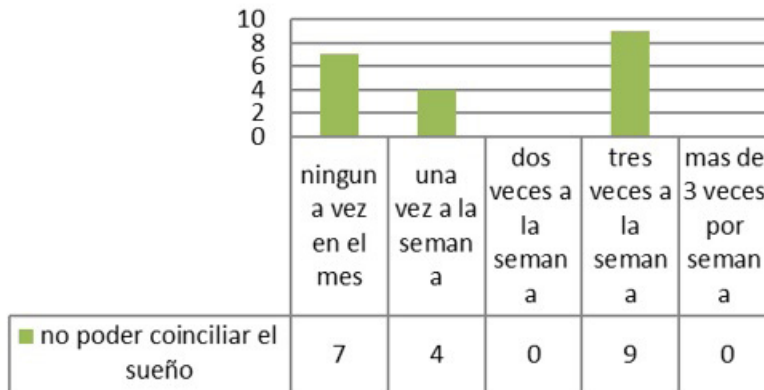


Figure 7: Not being able to reconcile sleep

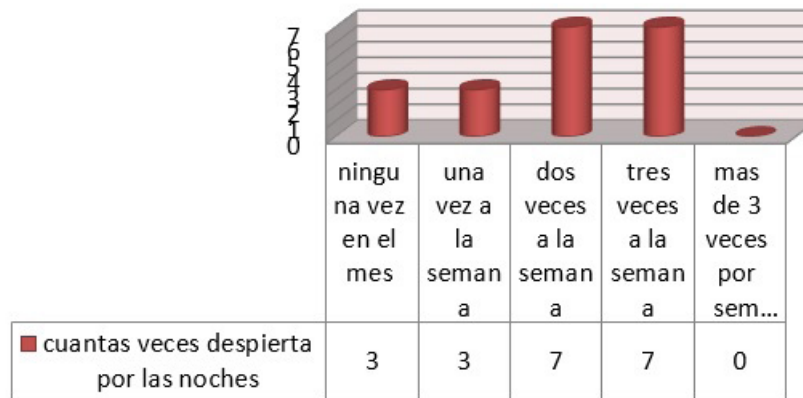


Figure 8: how many times do you wake up at night



Figure 9: Toser the snore

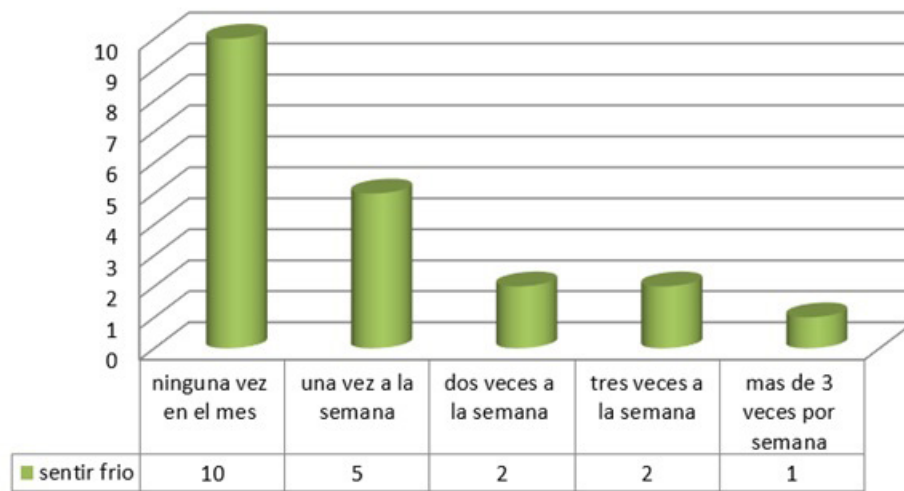


Figure 10: feel cold

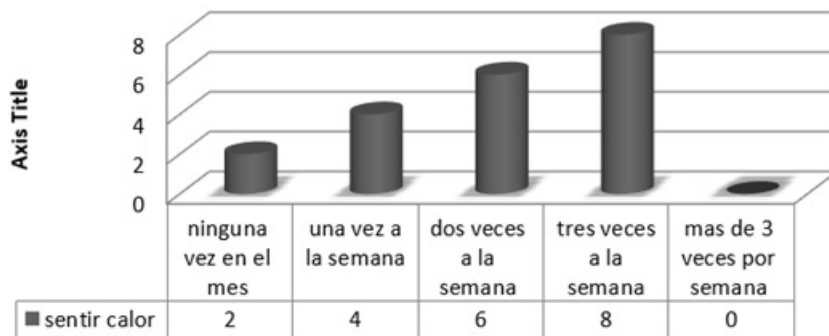


Figure 11: feel hot

Within the sleep hygiene study there is variability where it focuses directly on (Figure 12) factors such as drowsiness that is directly caused by poor sleep hygiene habits, based on the Pittsburgh scale there is a direct section where it raises questions about the drowsiness that the patient might suffer and finally whether such drowsiness or tiredness could prevent the performance of any daily activity, or executive activity in the day to day

As a result, 65% of patients (Figure 13) have been found in drowsiness status or felt tired within approximately two times to three times a week, while only 25% of patients experience drowsiness at least once a week, preventing their early recovery or decreasing

their endurance in everyday life.

Taking into account the number of patients who responded positive to the question about drowsiness, a graph was had that showed the results in which the incapacity or problem that caused to maintain that sleepiness status was manifested, (Figure 14) obtaining that 35% of patients have no problem performing their daily activities, (Figure 19) while another 35% of people surveyed denote their concern and rate it as a slight problem in everyday life to keep with sleepiness data which can cause him difficulties in his daily life finally rated his level of drowsiness as a moderate problem defining that daily activities if it causes them conflict to be able to perform them with the greatest aptitude and energy.

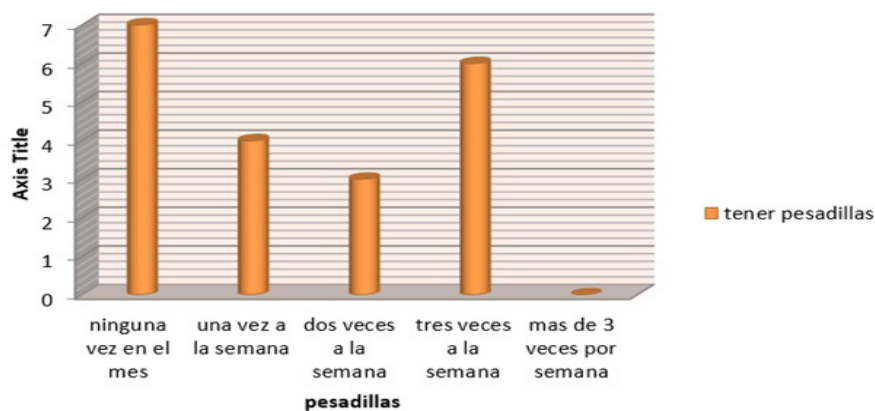


Figure 12



Figure 13: feel pain

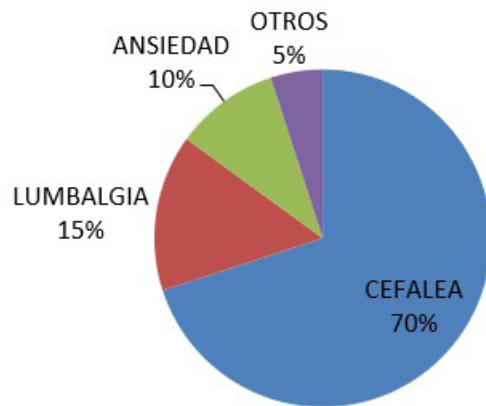


Figure 14: concomitant patterns



Figure 15: Own Rating of Your Sleep Quality



Figure 16: Use of Medications to Match Sleep

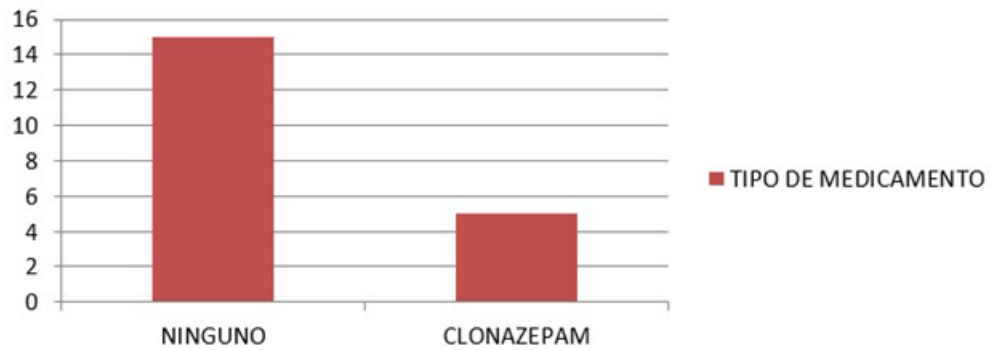


Figure 17: Type of Medicine

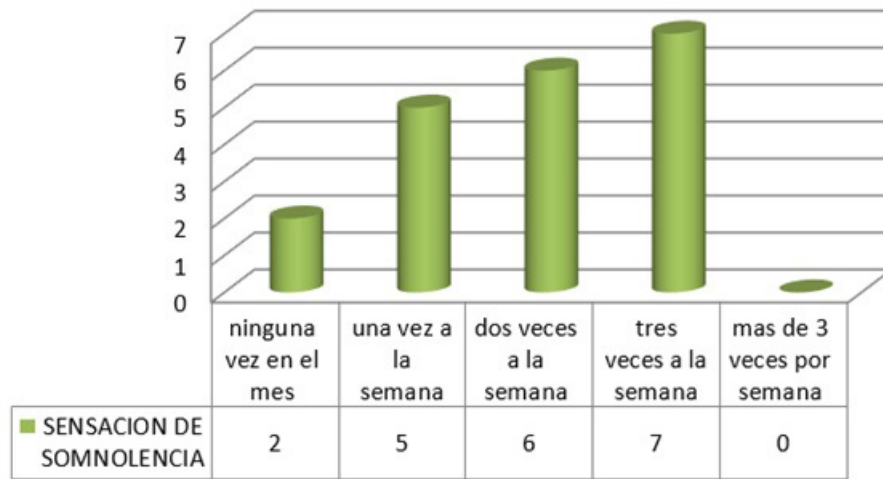


Figure 18: Feeling Sleepy

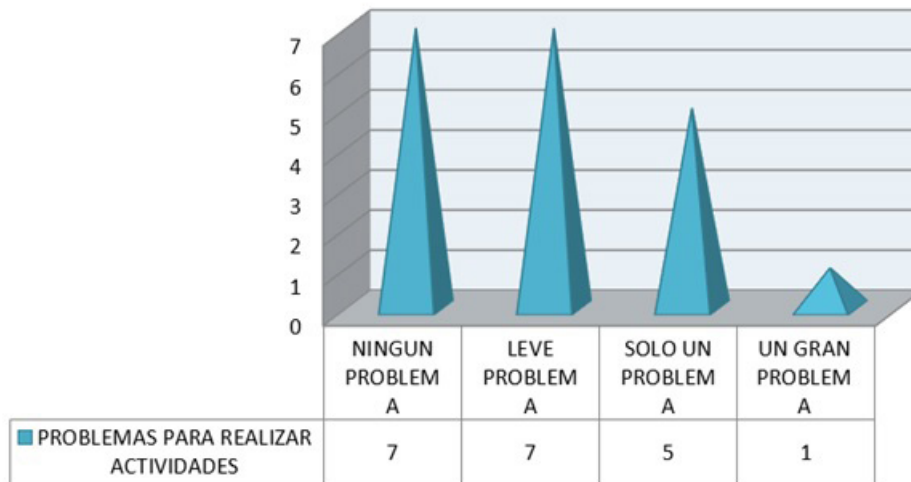


Figure 19: Trouble Doing Activities

11. Conclusion

The big health problem to solve in our country necessarily has to do with habits and because not respecting sleep hours alter bio-rhythms that translate into clinical problems such as: headache, nerve colitis, depression, anxiety, metabolic and systemic problems. It is important to understand the re-education of our patients

in each consultation and sanitary step, since the installation of a proper diet and weight management, as well as a healthy and aerobic sport along with sleep hygiene measures will be the main weapons to attack various diseases in our times.

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