

Letter to the Editor

Epworth Sleepiness Scale in a Sample of the Spanish Population

To the Editor:

Although there are diverse subjective evaluation scales of excessive daytime sleepiness (EDS), traditionally this symptom has been assessed by the Stanford sleepiness scale (SSS) (1). Nevertheless, this scale presents two drawbacks: a) data have not been obtained with healthy subjects, and 2) the scale only gives information regarding the patient's state at the moment of the assessment, without taking into account changes in sleepiness according to the time of day and the type of activity in progress. The Epworth sleepiness scale (ESS) (2) measures the influence of these variables since it asks the subject to rate, on a scale of zero to three, the degree of sleepiness that different situations of daily life produce, thus differentiating somnolence from fatigue. The ESS score is obtained from the sum of eight item scores, ranging from 0 to 24. Previous studies have verified the reliability of the ESS in an Australian sample, with both healthy subjects and patients with various sleep disorders (3-5).

We wondered if said data took cultural differences into account, that is to say, if the mean score of the scale would remain at 5.9 ± 2.2 for Spanish people who have the habit of taking an afternoon nap (siesta) or whether the score would be higher for item five, thereby increasing the mean score obtained on the scale. (Item five, "Lying down to rest in the afternoon when circumstances permit", makes reference to this nap.) This was the purpose of our study.

In this study, we selected a group of healthy subjects who had previously responded to a questionnaire designed to detect the existence of sleep disorders, to whom we applied the ESS. This group was made up of 193 subjects (93 men and 100 women) ranging in age from 20 to 81, with a mean age of 40.3 ± 13.8 years. The sociocultural level of the sample was low in 26% of the cases, middle in 25%, and high in 32%, with 17% not answering. An analysis of variance showed that there were no significant differences regarding age or sex. A frequency

analysis was performed with the SPSS+ PC statistical program.

Our results showed there were not significant differences in ESS scores with age or gender as John's data suggested.

As can be seen in Table 1, our data in a Spanish sample showed that the mean score in the scale was 6.11 ± 2.9 . Item five ("Lying down to rest in the afternoon when circumstances permit") was the one that obtained the highest score ($\bar{x} = 2.19 \pm 0.9$), followed by item seven, "Sitting quietly after a lunch without alcohol" ($\bar{x} = 1.2 \pm 1$), and then by item two, "Watching TV" ($\bar{x} = 1.18 \pm 0.9$). Item eight, "In a car, while stopped for a minute in the traffic", is the one that obtained the lowest score ($\bar{x} = 0.06 \pm 0.2$).

These data showed that the ESS mean score obtained in a Spanish sample was only slightly higher than the one referred to in the Australian population. This difference could be partially due to the different number of subjects used in each sample. On the other hand, although one might think that the effects of the cultural habit of taking an afternoon nap (siesta) in certain Mediterranean countries could result in a higher score on the ESS, our study showed that the score obtained for item five is similar to the score for that item obtained in the Australian sample. This makes sense if we conclude that everyone, regardless of his culture, would tend to take an afternoon nap if his working or social environment allowed for it. This would seem to indicate that the ESS might reflect a physiological increase in sleepiness in the afternoon. If this is true, the ESS eliminates one of the drawbacks inherent in the SSS.

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TABLE 1. ESS scores obtained from the Spanish population

Item	Mean	(SD)
1 Sitting and reading	0.58	(0.7)
2 Watching TV	1.18	(0.9)
3 Sitting inactive in a public place (e.g. a theatre or a meeting)	0.29	(0.6)
4 As a passenger in a car for an hour without a break	0.56	(0.8)
5 Lying down to rest in the afternoon when circumstances permit	2.19	(0.9)
6 Sitting and talking to someone	0.03	(0.1)
7 Sitting quietly after a lunch without alcohol	1.20	(1.0)
8 In a car, while stopped for a few minutes in the traffic	0.06	(0.2)
Total score	6.11	(2.9)

ESS, Epworth sleepiness scale; SD, standard deviation.

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Acknowledgements: This research received support from the Universidad Complutense of Madrid, Grant number PR 219 / 94-5541.

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