

## Sleep quality in adult population

Sleep quality is related to relevant aspects of human life, such as health, cognitive functioning or quality of life. Sleep quality is a global measure; it not only includes sleep duration but other important features of this important human activity as well (e.g., disruption, latency, use of sleeping pills, etc.). A good sleep quality is needed for our general functioning and responding to everyday requirements of human life.

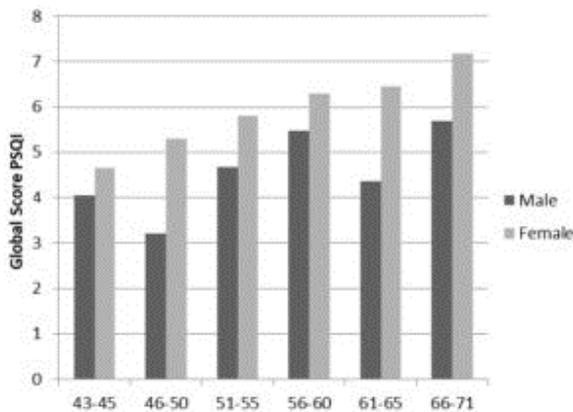


Fig. 1. Mean PSQI score by age group and sex.

The prevalence of poor sleep quality varies greatly depending on the population characteristics. For instance, sex and age are important factors related to sleep quality. It is well known that sleep quality decreases with age and women usually have a worse sleep quality than men. This decrease in the restorative value of sleep is thought to be due to physiological changes although the precise intervening mechanisms are largely unknown. Other features, such as the population extraction (e.g., geographical area or employment status) or methodology of the study could also influence the measure of sleep quality.

In Spain, despite the relevance of this question, there is a scarcity of adequate studies on this topic and, consequently, a lack of knowledge regarding the prevalence of poor sleep quality in non-clinical population. However, such information is crucial to understand the dynamics of health care seeking, as related to sleep problems, and implement public health measures oriented to health promotion in the general public.

Taking into account all of the above, this study had the objective to explore the prevalence of poor sleep quality in a representative non-clinical population and exploring the effect of age and gender in this prevalence.

The sample comprised 2,144 subjects born between 1939 and 1966 participants in the Murcia Twin Registry (MTR). This is a population based registry and therefore, the results are representative of the reference population. Subjects answered to an inventory, based on the National Health Survey questionnaire that incorporates socio-demographic and health-related information. Sleep quality was evaluated through the Pittsburgh Sleep Quality Index (PSQI). This questionnaire gives a score ranging from 0 to 21, the higher the score the worse sleep quality of the subject has. To assess the association between age and gender with

respect to PSQI and its various subscales, logistic regression analyses were performed. Bivariate analyses were also performed to analyze the effect of age and sex together.

The results show that, for the Spanish adult population, the mean average in sleep duration is 6.43 hours. No differences between women and men were found in this regard. However, there are notable differences for sleep quality and the analyses showed that both age and sex had a significant effect on the PSQI score. Women have an overall PSQI mean of 5.74 whereas for men is 4.37. Using the PSQI's criterion to classify subjects with poor sleep quality and subjects with an adequate sleep quality, we found a prevalence of poor sleep quality of 44.6% and 30.1% for women and men respectively.

Regarding age, we found an inverse relationship to the quality of sleep but, as in the case of sex, we encountered differences between women and men. While for women there is a steady worsening of sleep quality, in the case of men this deterioration is seen with a less stable and marked pattern (Fig. 1).

Finally, the menopausal status did not have a significant effect on the prevalence of sleep quality, there was a notable increase in sleep difficulties between 45 and 50 years but this increase occurred for all groups of women, regardless of their menopausal status (Fig. 2).

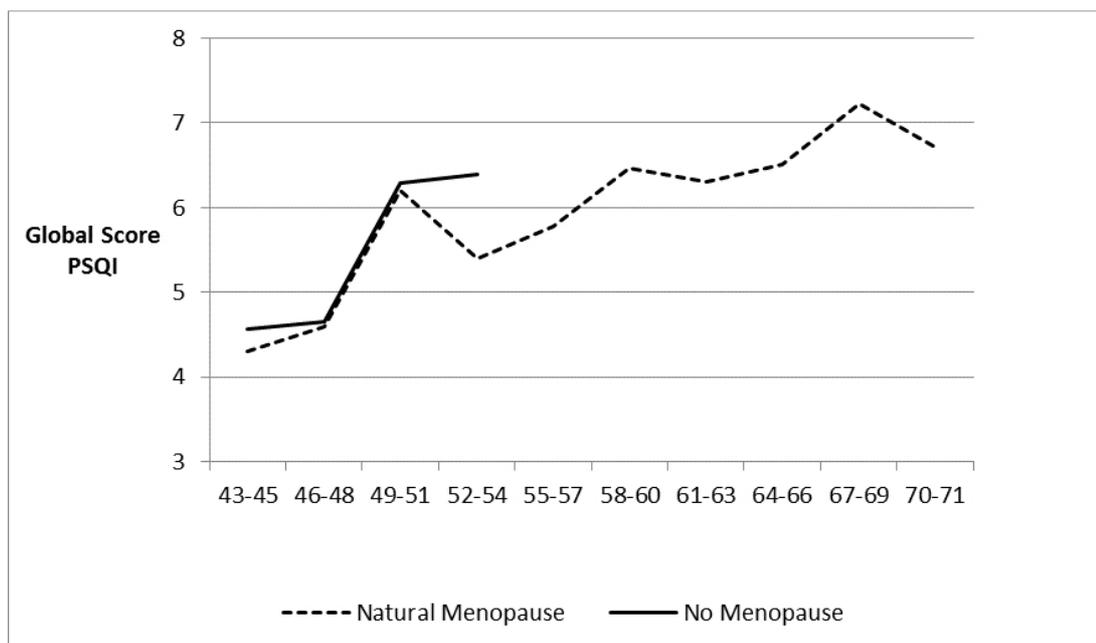


Fig. 2. Sleep quality (Mean PSQI score) and menopausal status.

This study points out the high prevalence of poor sleep quality in the Spanish adult population. Moreover, it highlights the differences between women and men, being the former almost two times as likely to suffer poor sleep quality than men. Women are also more likely to use sleeping medication, experience sleep disturbances or have a longer sleep latency. Finally, this study highlights the role of age in the prevalence of poor sleep quality, worsening when age increases. To sum up, this study provides relevant data to interpret

the impact of poor sleep quality on health seeking behavior, and the need for health promotion interventions addressing this issue.

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## **Publication**

[Age and gender effects on the prevalence of poor sleep quality in the adult population.](#)

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