

## **POPULATION STUDY OF SLEEP DURATION AND DREAMS IN UKRAINE POPULATION SAMPLE**

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One of the most striking examples of manifestations of human biological rhythms is the sleep-wake cycle, characterized by changes in the activity of a number of physiological processes. Alternation of sleep and wakefulness is subject to the laws of the circadian biological rhythms that fit in a 24-hour time slot. It is now known that circadian rhythms are controlled by the suprachiasmatic nucleus of the hypothalamus, which in turn regulates the secretion of the hormone melatonin by the pineal gland, which is reduced in the daytime, and increases in the dark.

During the life of a man dreaming dreams is about six years, an average of two hours a day. The best way to gather information about dreams - an anonymous survey of people in groups. In the study of the population of Ukraine we used this method. The study involved 2305 people in Ukraine aged 14 to 72 years, mostly in Kharkiv and Kharkiv region, who gave informed consent for questioning. Collection of information held in view of ethical requirements when dealing with a person. The questionnaire contained socio-demographic information. Probands were 741 male and 1501 female. In the study there were 74 married couples, 105 pairs of siblings and 352 parent-child pairs, 1174 people were surveyed without a relative. Groups were formed depending on the objectives of the study.

The average age of the patients in study of sleep characteristics was  $24.5 \pm 0.8$  years in men ( $s = 9.9$ ), and in women –  $25.8 \pm 0.7$  years ( $s = 12.7$ ); sleep duration in men was  $8.3 \pm 0.2$  h ( $s = 1.7$ ), in females  $8.2 \pm 0.1$  h ( $s = 1.6$ ); the average duration of sleep in the studied population was  $8.2 \pm 0.1$  h ( $s = 1.7$ ). Mode and median duration of sleep was 8 h. In the analysis of subjective sleep duration gender differences were found.

The analysis of other sleep characteristics was done depending on gender and age. Daytime sleep was not related to gender, but was associated with age ( $p < 0.05$ ). In the study of the speed of falling asleep it was revealed that in general 70% of the patients fall asleep quickly, 25% - slowly, and 5% were mixed in the subjective evaluation of the speed of falling asleep. Gender differences in speed of falling asleep

were not found, but it was shown its relationship with age ( $p < 0.001$ ). In studying the symptoms of insomnia sex differences were found, but in general about 14% of the patients have sleep problems. Symptoms of insomnia were associated with age ( $p < 0.01$ ).

Among the examined people phenomenon of recurrent dreams was present in 24% of the population. The resulting value is quite small in comparison with those of other researchers, according to which recurrent dreams may reach 50-80%. According to others recurrent dreams occur in 70% of women and 65% men. On the other hand, a small fraction of the frequent recurrence of dreams is a positive thing, because, as a rule, recurrent dreams are accompanied by a number of nervous and mental disorders. Also there was a relationship of age to the presence of frequent recurrence of dreams ( $r = 0.12$ ,  $p < 0.05$ ). Thus, most (about 30%) recurrent dreams occur in younger people, less often (about 14%) - in older individuals.

In the sample studied in 10% of the population there was seen nightmares. The presence of relatively frequent nightmares in the sample was related to gender. So, women nightmares occur almost 8 times more likely than men ( $K = 0.12$ ,  $p < 0.01$ ). A relationship between gender and their presence in dreams was found ( $r = 0.12$ ,  $p < 0.05$ ). Thus, 32% of men and only 16% of women do not have the features of dreams. Perhaps in the studied sample women just better remember dreams than men. Special studies in sleep laboratories have shown that at least 70% of human dreams were in color, although on average only about 25-30% of people remember their dreams have specified feature that is consistent with the data obtained in the studied sample. There is the presence of about 8% of rare dreams and deepest dreams 7%, suggesting the predominance in this part of the population of slow-wave sleep.

Thus, a sample of the population of Ukraine distribution of duration of sleep is characterized by positive skewness and kurtosis. Sleep duration weakly negatively correlated with age, regardless of gender. The presence of an afternoon nap, the speed of falling asleep and symptoms of insomnia are not related to gender. The speed of falling asleep is not related to gender, but lower among younger and older age groups, as well as among students and health professionals. Risk of developing symptoms of insomnia is higher in people of younger and older age groups. A relatively small proportion of recurrent dreams in the population was found, and their prevalence was higher in younger age groups. A higher incidence of nightmares was seen in women. The presence of the typical features of dreams in most of the population was found.