# OCCURENCE OF SLEEP ABNORMALITIES AMONG PEOPLE WITH MENTAL DISORDERS - QUESTIONNAIRE STUDY

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#### SUMMARY

**Background:** Sleep disorders belong to the most common health problems in modern society. The aim of this study was to analyze and determine different factors, which have an impact on the occurrence of sleep abnormalities among people with mental illnesses.

Subject and methods: An original questionnaire containing 23 questions was created. 49 respondents from an outpatient psychiatric clinic were recruited to the study.

**Results:** The results indicate that the majority of respondents have the frequency of sleep disturbances more than 3 times per week. In 36% of them the length of sleep was not sufficient enough, and nearly half of the patients reported waking up at night. Sleep disturbances resulted in the appearance of several symptoms (tiredness – 66%, lower motivation and lack of energy – 51%, decreased mood - 45%, attention deficits and memory deterioration – 45%, irritability – 43%). Only 19% of them declare a deterioration of their social and vocational functioning. The majority of patients sleep more than 6 hours, but the patients consider this amount of sleep as not sufficient. The methods to cope with reported sleep problems are: most of respondents (68%) take hypnotics, 4% of respondents drink alcohol before going to sleep, 4% try to solve the problem with sex or masturbation. 9% reported talking about this problem with family member and/or friends. The other 13% of the respondents do not try to make any efforts to manage their sleep disturbances.

Conclusion: The questionnaire confirmed that sleep disturbances are common in mental disorders and the problem of insomnia has a negative impact on mood and quality of life for the majority of the patients who we studied.

Key words: sleep disorders - mental illness - questionnaire survey

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## **INTRODUCTION**

'Heaven has given human beings three things to balance the odds of life: hope, sleep and laughter' - said Immanuel Kant. Sleep disorders belong to the most common health problems of modern society and they have become one of the most important reasons for seeking medical attention. Traditionally, insomnia has been classified into sleep-onset insomnia, sleepmaintaining insomnia with early morning awakening (FMA) (Hohagen et al. 1994). Insomnia involves any difficulties related to sleep, including difficulty falling or staying asleep, falling asleep at inappropriate times, excessive total sleep time, or abnormal behaviors. Sleep disorders occur very often in clinical practice and have major effects on well being and overall health. In many cases, insomnia is comorbid with other illnesses, which complicates its diagnosis and treatment. (Ebben et al. 2012). This problem continues to increase in Poland over recent decades. In 1992 - 24% of people in Poland had sleep problems, in 2012 they were present in 55% of population. Furthermore, sleep disorders are commonly associated with other medical problems as a reason, but also as a consequence, creating a feedback loop (Musiol et al. 2008, Heitzman 2010, Leszczynska 2010).

# **SUBJECTS AND METHODS**

### **Subjects**

The study was preceded by the recruitment of 49 patients (28 women and 21 men). The patients attended the Outpatients Clinic of the Department of Psychiatry and Psychotherapy, Medical University of Silesia, Poland. Our questionnaires were collected from 4th March to 6th May 2013. The average age of respondents was 44 years. The largest group of respondents came from cities larger than 100 000 inhabitants (64%), the others lived in cities smaller than 100 000 inhabitants (28%) and in villages (8%). All of them were of Polish origin living in the Silesia region.

#### Methods

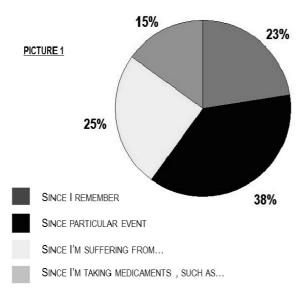
An original questionnaire was prepared in Polish and contained 23 questions. In addition to basic questions about age, gender, location, education, there were also questions about when the sleep disturbances occurred, about the frequency of symptoms, about the present sleep length and satisfactory sleep length, about the quality of sleep, causes and consequence of insomnia. The survey respondents were also asked if their sleep was continuous or whether wake up periods occurred and how they tried to handle their problem of sleep disturbances.

## Data analysis and statistics

The survey was anonymous and the respondents filled the questionnaires voluntarily. StatSoft "STATISTICA" was used for statistics analysis.

#### **RESULTS**

The research results indicated that sleep problems occurred for the first time in connection with a particular event (38%). The most frequent answers were: death of a family member, financial problems, loss of employment. The main cause for the appeareance of the disturbances in 25% of the respondents were comorbid diseases including mental problems (such as depression, anxiety disorders) as well as somatic conditions (neurological disorders, stroke, back pain, diabetes). Very long, chronic sleep problems were reported by 23% and another 15% associated their symptom duration with the beginning of pharmacotherapy prescribed for other conditions (Figure 1).

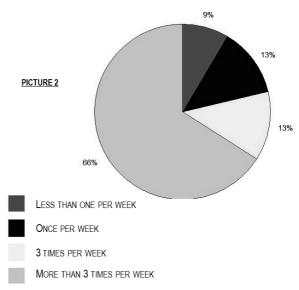


**Figure 1.** Since when have the sleeping disturbances occurred?

The majority of the respondents (66%) reported that they suffered from sleep disturbances more than 3 times per week. 13% reported the frequency as about 3 times per week, 13% once per week, and only 9% less than one time per week (Figure 2).

What is important is that most of the patients (51%) need some time to fall asleep after going to bed and switching off the light. 26% respondents need a few hours to fall asleep, 19% report that they needed a longer time and for 4% of patients this time period was limited to only a few moments. When asking the question about what kind of emotion occurs before falling asleep, most of the patients (55%) reported a flood of thoughts, 51% had a feeling of suspense, 32% experienced anxiety. 36% complained about concerns and 21% of them reported decreased mood.

The next question was related to the length of sleep. 36% of the respondents chose the answer that the length of sleep was definitely too short, for 34% it was too short, 19% responded that it was long enough. 11% responded that it was totally not sufficient (Figure 3).



**Figure 2.** How often do the sleeping disturbances occur? (Such as asleeping difficulties, waking up at night, waking up too early in the morning)

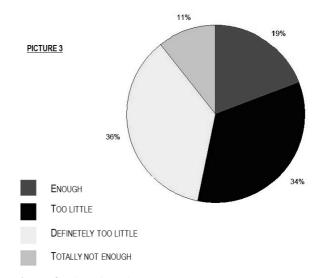
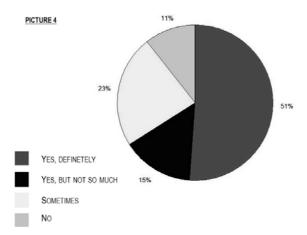


Figure 3. Sleep length

The majority of respondents (45%) reported that sometimes they woke up during the night, 36% woke up frequently, 6% did not have problems with waking up at night, 13% woke up very often, over a dozen times at night. Another question referred to parasomnias. 34% of respondents reported night fears, 30% had nightmares, 10% of patients used to speak during the night. Nobody declared somnambulism. Each of the factors mentioned had an impact on the mood during the next day. The question was designed to show whether the problem was serious enough. We noticed that 51% of respondents reported that sleep disturbances had a definite

influence on their mood, 15% reported that the problem occurred but it was not too big for them. 23% answered that that sometimes this influence took place and 11% gave a negative answer (Figure 4).



**Figure 4.** Do the sleeping disturbances have influence on your mood next day?

There are many negative effects of sleep disorders that had impact on the mental condition and also on somatic health. Patients were asked what they felt the next day that an insufficient amount of sleep had occurred. The most common answer was tiredness (66%), the second most frequent symptom was lower motivation and energy (51%), the other symptoms were bad mood (45%), attention or memory deficiency (45%), irritability (43%) mood disorder (43%), somatic symptoms (such as headaches, gastro-intestinal symptoms) (40%), deteriorated social or work functioning (19%). The research of this community showed that the largest group of respondents fight with sleep disturbances only by using medicaments (68%), 4% of respondents used alcohol, 4% used to handle the issue with sex and masturbation. 9% were reported leading conversations with family members and/or friends. We still see that 13% of respondents do not do anything to solve the sleeping disturbance problem. What is important here is that the majority of respondents sleep more than 6 hours (21% sleeping about 6 hours, 20% sleeping 7 hours, 20% sleeping 9 - 10 hours). The recommendation of the American Academy of Sleep Medicine is that a suitable amount of sleep (7-8 hours) seems to be enough. 17% of respondents sleep less than 4 hours and 11% 5 hours. The amount of sleep to need to function optimally the majority off respondents were reported as 7-8 hours. 25% of respondents need 8-9 hours and for 15% 4-6 hours is enough. 10% were reported to need more than 10 hours.

# **DISCUSSION**

The research reports indicate that sleep disturbances are very often associated with other psychiatric illnesses. They have an impact on the patients' mental health and somatic diseases and looking from the other side - they may also occur in various disorders, creating an individual cause and effect loop, which goes along with the findings from literature (Musiol et al. 2008, Heitzman 2010, Leszczynska 2010). The survey confirmed that the consequences of insomnia occurred often in the group of respondents. These consequences were: tiredness, lower motivation and lack of energy, attention deficits, irritability and somatic symptoms. In 66% of respondents sleep disturbances occur more than 3 times a week, in 36% of them the length of sleep was not sufficient and nearly half of the patients woke up at night. Only 19% declared disturbances of their social and work functioning. We say 'only' as this results when compared to the fact that the mood is decreased in the majority of patients (51%). The lack of sleep may lead to a reduced quality of life, severe stress and other health consequences. More than a half of the patients slept more than 6 hours, which was close to the recommendations of American Academy of Sleep Medicine (2005), which say that about 7-8 hours seems to be enough. Contrary to this, the analysis of the questionnaire study shows that patients considered this amount of sleep as not sufficient. Half of the respondents declared that they needed of 7-8 hours of sleep per day, which perfectly correlates with recommendations of the AASM (Berry et al. 2012). Declared ways to manage sleep disturbances revealed that the patients wanted to find an immediate solution. 68% used medication. Nobody declared participation in cognitive-behavioral therapy focusing on problems with sleep, or other forms of nonpharmacological therapy. Patients should be educated about their sleep habits including sleep hygiene tips, ways to relax, stay asleep, get better sleep and improve the quality of sleep (Khawaja et al. 2013). These all help to achieve long-term results that are continuing even when the therapy has been finished, contrary to pharmacotherapy, the results of which are transient. Thus each patient should be treated with psychotherapeutic methods including CBT. There exists a need of an education campaign in Poland in order to decrease the number of persons who taken medication which may be abused and to promote behavioral therapy. Cognitive-behavioral therapy for insomnia has been shown to have a positive impact on both sleep and symptoms of depresssion and anxiety (Spiegelhalder et al. 2013). Specific and nonspecific approaches are utilized in the treatment of insomnia, and the methods of normalization of sleep hygiene and behavioral therapy are effective independently of the type of insomnia (Poluektov 2012).

## **CONCLUSION**

The survey revealed that the number of patients with deteriorated social or work functioning (19%) is lower among patients with mood disturbances (51%).

Declared ways to manage sleep disturbances show that patients want to find immediate solutions without participation in long lasting therapy. The large population of respondents do not know the proper way to cope with sleep disturbances.

There exists a need for an education campaign in Poland in order to decrease the number of patients who abuse medication and to promote behavioral therapy.

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Conflict of interest: None to declare.

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