



Patient-Centered Approaches to Medical Intervention

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About MedForum

This book is the collection of selected articles that appeared at the First MedForum: International Conference on Patient-Centered Approaches to Medical Intervention held in Hyderabad in virtual mode on September 27 & 28, 2024.

In this forum following issues were discussed: exploring the collaborative process where healthcare providers and patients work together to select treatments that best align with clinical evidence, patient values, and individual preferences, delving into cutting-edge approaches to tailoring medical interventions based on genetic profiles, lifestyle choices, and environmental factors for improved efficacy and minimized risks, discovering methods to empower patients through education, communication, and the integration of patient-reported outcomes into healthcare practices, examining strategies for reducing disparities and ensuring equitable healthcare access for all, particularly underserved populations, learning about the transformative role of telemedicine, wearable devices, and digital health platforms in modern healthcare, and how they connect patients and professionals with the latest medical advancements, gaining an understanding of the ethical challenges in patient-centered care, including privacy, autonomy, and the ethical use of emerging technologies.

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COMPARATIVE ANALYSIS OF SLEEP DISORDERS IN PHOBIC- ANXIETY AND ANXIETY-DEPRESSIVE DISORDER

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Abstract

This article is devoted to a comparative analysis of sleep disorders in phobic anxiety- and anxiety-depressive disorders (PAD and ADD). 66 women aged from 22 to 54 years old with diagnoses of phobic-anxiety disorders (group 1, n = 32) and mixed anxiety and depressive disorder (group 2, n = 34) have been analyzed. The dynamics of each psycho-emotional disorder state in both study groups was analyzed. Although PAD and ADD had a similar clinical picture, dynamic monitoring of the clinical course symptoms revealed fluctuations in symptoms. It was found that insomnia is closely related to both PAD and ADD: the risk of developing insomnia in anxiety disorders is 2.56 – 4.71, and in depression – 2.27 – 3.52. In the 1st group the risk of developing insomnia had a direct correlation with the anxiety degree, in the second group - with the depression severity. This research will help to improve the timely diagnosis of phobic-anxiety and anxiety depressive disorder and improve a differentiated approach to the presentation of medical and psychological care.

Keywords: anxiety disorders, anxiety-depressive disorder, ICD-10, neuropsychiatric disorders, clinical studies, insomnia, sleep disorders.

INTRODUCTION

Phobic- anxiety- and anxiety depressive disorder are an urgent medical, psychological and psychosocial dilemma of our times. During the recent Covid-19 pandemic, a sharp increase in neuropsychiatric disorders has been observed throughout the world, which still occur in the form of a variety of clinical syndromes [2-6]. Phobic – anxiety and anxiety-depressive disorder - are those pathological mental states that are difficult to differentiate even for experienced specialists. Since both of them are often combined. In order to make a correct diagnosis, it is sometimes necessary to observe the clinical course of these two conditions for a long time. Therefore, you always have to refer to ICD-10 (ICD-11) and other clinical classifications concerning accurately differentiate them. Both phobic-anxiety disorders (PAD) and anxiety depressive disorder (ADD) are in most cases accompanied by sleep disorders, mostly chronic insomnia [1, 7]. In ICD-10, PAD is presented under code F40 (phobic anxiety disorder), which has several subheadings, and ADD is presented under code F41.2 (anxiety depressive disorder), and sleep disorders has code G47, which has several subheadings [8]. Consequently, according to ICD-10, the diagnosis of “mixed anxiety-and depressive disorder” is made when both anxiety and depression are present at the same time, but none of these conditions is prevalent, and the severity of their symptoms does not allow a separate diagnosis to be made when considering each. If symptoms of anxiety and depression are so severe that a single diagnosis cannot be made, then both diagnoses should be coded, in which case this category will not be used [7,8]. It should be noted that during the COVID-19 pandemic, both in children and adults, researchers have extensively described isolated forms of neuropsychiatric disorders, such as anxiety,

compulsion and insomnia [2-6], the etiopathogenesis of which is being intensively studied. Many researchers find a close relationship between sleep disorders and anxiety and depressive disorders [5]. A clear dependence of the severity of both groups of diseases on comorbid sleep disorders has been shown. The prevalence of insomnia in general somatic medicine, according to various values, ranges from 62 to 85%, which has a complex pathogenetic mechanism. The high prevalence of PAD and ADD in the general population, the tendency for their long-term course, and high comorbidity with sleep disorders lead to a significant deterioration in the ability to work and a decrease in the patients life quality. Despite the presence of numerous works on the problems study the phobic -anxiety- and anxiety-depressive disorders, and their connection with sleep disorders, the pathogenetic and psychophysiological mechanisms of these disorders have not yet been fully revealed. A comparative analysis of the relationship between chronic insomnia and PAD and ADD is of great interest for improving the issues of psychoprophylaxis, psychodiagnostics, psychotherapy and the organization of medical and psychological care to the population.

Materials and Methodology

The objective is to study the comparative characteristics of sleep disorders in phobic-anxiety and anxiety-depressive disorders to further improvement the provide medical system and psychological care.

During the COVID-19 pandemic and immediately postcovid period, 66 patients were under our supervision. Based on the purpose and objectives of this work, the patients were divided into two groups: 1st – with phobic- anxiety disorders (n = 32), 2nd – with anxiety-depressive disorders (n = 34). The age

range of the women examined was from 22 to 54 years (mean age 42.3 ± 6.7 years). The diagnosis was established when the disease lasted at least 3 months, and in the presence of symptoms of psychosomatic discomfort and social inadaptation. All those included in the cohort underwent clinical, psychological and pathopsychological studies, and each of them received a medical and psychological record developed by Z.R. Ibodullaev [8]. The HADS questionnaire was used to assess the level of anxiety and depression. The Pittsburgh Sleep Quality Index (PSQI) was used to determine the sleep quality index. It consists of 24 items that help assess: subjective sleep quality, sleep latency, sleep duration, subjective perception of sleep adequacy, sleep disturbances, and daytime functioning disturbances. [16]. The PSQI questionnaire is simple and can be completed within 10 minutes. Statistical analysis of the data was done in Excel 2013 format. The significance of differences between groups was studied using Pearson's χ^2 test.

Results

A comparative analysis of the clinical symptoms of PAD and ADD and the incidence of sleep disorders was carried out. A similar clinical picture of both clinical syndromes has been established, which has been proven in many clinical studies, however, dynamic observations of their clinical course revealed fluctuation of symptoms. During different periods of the disease, some symptoms regressed, others progressed. Comparative characteristics of clinical symptoms in the studied groups showed different frequencies of occurrence and varying degrees of severity (Table 1).

Table 1. Comparative characteristics of symptoms of phobic-anxiety and anxiety-depressive disorders in the study groups

Symptoms	1-group (PAD) (n = 32)		2-group (ADD) (n = 34)	
	Abs.	%	Abs.	%
Irrascibility	28	87,5	19	55,9
Persistent anxiety	32	100	2	5,9
Decreased mood	26	81,25	32	94,1
Obsessive fear and motor restlessness	28	87,5	12	35,3
Difficulty concentrating	12	37,5	30	88,2
Sleep disturbance (insomnia)	16	50	28	82,3
Mental fatigue	16	50	24	70,6
Physical weakness	12	37,5	24	70,6
Panic attacks	18	56,25	1	2,9
Lack of motivation to move	12	37,5	28	82,3
Anorexia	12	37,5	24	70,6
Suicidal thoughts	2	6,25	18	52,9
Somatic symptoms	24	75	24	70,6

The symptoms of PAD and ADD are similar, but their frequency differs. In group 1, irritability, persistent anxiety, panic attacks, obsessive fear, and motor restlessness were more common. In group 2, difficulty concentrating, insomnia, physical weakness, lack of motivation, anorexia, and suicidal thoughts were more prevalent. Clinical and pathopsychological studies

using the HADS scale revealed differences in anxiety and depression levels, though decreased mood, mental fatigue, and somatic symptoms occurred at similar rates in both groups. In group 1, insomnia, prolonged anxiety, and obsessive fear were the primary symptoms, while in group 2, insomnia was accompanied by low mood, difficulty concentrating, and lack of motivation. Sleep disorder (insomnia) appeared in both groups due to ongoing anxiety and depression. The quality of sleep was analyzed using the Pittsburgh scale, with results displayed in Table 2.

Table 2. Comparative characteristics of sleep quality in the examined groups according to the PSQI questionnaire

Sleep quality characteristic	First group (n = 32)	Second group (n = 34)
Time to fall asleep:		
10 – 20	4	4
21 – 30	13	8
31 – 60	15	13
I can't fall asleep	6	9
Duration of night sleep:		
7 – 8 hours	6	4
6 hours	14	10
less than 6 hours	6	11
they claim not to sleep	6	9
Night awakenings:		
1 – 2 times	8	6
3 – 4 times	8	8
Often	10	11
No sleep	6	9
Nocturnal panic attacks		
No	14	30
1 – 2 times	12	4
3 or more times	6	0

Our dynamic observations of sleep disorders showed that sleep quality suffers in both individuals with PAD and ADD. An interesting fact is that the time of falling asleep, the duration of night sleep and night awakenings occurred with almost the same frequency, however, panic attacks in individuals with PAD occurred almost 4.5 times more than in individuals with ADD ($P < 0.001$). A distinctive feature of insomnia in PAD and ADD from primary insomnia not associated with other diseases is that the cause of sleep disturbances was anxiety and depressive disorders, and as is known in primary insomnia, anxiety is caused by insomnia itself. During dynamic observations of patients in both groups, the clinical components of insomnia were difficulty falling asleep, frequent awakenings, decreased sleep quality, and a decrease in its total duration. Panic disorders were more typical for the 1st group of patients, which occurred in 56.25% of cases, versus 2.9% in the 2nd group ($p < 0.001$). Panic attacks occurred periodically, lasting 15 to 30 minutes, and involved sudden fears of cardiac arrest and death. Symptoms included palpitations, shortness of breath, nightmares, headaches, dizziness, tinnitus, motor restlessness, epigastric pain, frequent urination urges, skin paleness or redness, and general sweating. Post-attack, patients experienced dysphoria and general weakness, worsening their condition, especially with frequent episodes. Nighttime panic attacks further deteriorated mental health, leading to complete sleep loss, increased anxiety disorders, and

new somatoform disorders. In 18.8% of patients, nighttime attacks were accompanied by sleep paralysis—motor paralysis of limbs—heightening fears of cardiac and respiratory arrest and, in adults, increased blood pressure and fear of stroke. Some patients deprived themselves of sleep to avoid these attacks, worsening their somatic status. Comparative analysis using the HADS scale showed that the first group had significantly higher anxiety indicators than the second group, while depression indicators were naturally higher in the second group (Table 3).

Table 3. Distribution of anxiety and depression indicators in the study groups according to the HADS scale (absolute number)

Hospital Anxiety and Depression Scale	Points	1st group (n = 32)	2nd group (n = 34)
HADS-A (anxiety)	0-7	0	15
	8-10	11	19
	11 or more	21	0
HADS-A (depression)	0-7	26	0
	8-10	6	14
	11 or more	0	20

Discussion

It should be noted that anxiety-phobic and anxiety-depressive disorder indicators showed a positive correlation. In PAD patients, specific phobias like agoraphobia, claustrophobia, cardiophobia, and thanatophobia were observed. Claustrophobia occurred in 37.5% of group 1 patients, causing fear of enclosed spaces, air hunger, and psycho-vegetative symptoms, leading them to seek open air and proximity to others for assistance. In contrast, 12.5% had agoraphobia, with a persistent fear of open spaces or crowded places, leaving home only with close relatives. Such phobias often led to social isolation and maladaptation.

Nocturnal insomnia in group 1 PAD patients was marked by presomnia and hypochondriacal disorders, including fear of insomnia, frequent awakenings, daytime sleepiness, and pain. In group 2 ADD patients, insomnia was linked to decreased mood, suicidal thoughts, guilt, helplessness, and lack of interest in life and work, leading to exhaustion upon waking despite sleep.

Conclusions

A comparative analysis of sleep disorders in the studied groups showed an increased risk of developing insomnia, both in patients with PAD, especially in the group of people with panic attacks, and with ADD. Thus, in the 1st group, those with insomnia were comorbid with panic attacks (56.25%), and among those in the 2nd group, the comorbidity was with severe depression (39.8%). The risk of developing chronic insomnia in PAD is 2.56–4.71, and in ADD it is 2.27–3.52 times and always correlated with the severity of anxiety-phobic and anxiety-depressive disorders. With a long course of PAD and ADD, almost simultaneously with the development of sleep

disorders, appear general symptoms, such as headaches, dizziness, pain in the heart, physical weakness, restless legs syndrome, general tremors and numbness of the extremities, which further worsens the course of the disease, leads to social maladaptation and decreased quality of life. The combination of anxiety, depression and insomnia forms a vicious pathological circle, which over time makes it difficult to determine the etiological factor (what is primary, what is secondary), leads to the appearance of new and new pathological symptoms, worsening clinical diagnosis and determining the tactics of providing psychotherapeutic care.

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Note: All the tables in this chapter were made by the author.