

Anxiety disorders as the most common mental illnesses – diagnostic and treatment methods

Zaburzenia lękowe jako najczęstsze schorzenie psychiatryczne – leczenie i metody diagnostyczne

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Abstract:

Anxiety disorders, including generalized anxiety disorder (GAD) are the most common mental health illnesses. According to the World Health Organization, over 300 million people have suffered from anxiety disorder in 2019. Statistics show that every third person of the world's population will experience anxiety disorders during their lifetime, which makes GAD an extremely important issue. A number of patients are suffering from anxiety for many years until they get the proper diagnosis. The difficulty of establishing the proper diagnosis, such as GAD, relies on non-specific symptoms, occurring GAD with other mental illnesses, but also somatic diseases. The DSM-V criteria are validated tools in the diagnostic process for patients with anxiety. Moreover, there are other useful screening forms available such as GAD-7, that are helpful and cost-effective. Despite the non-specific symptoms and comorbidity with other diseases, limited psychiatric special-

ists access and stigmatization of mental problems are other factors that extend the time to diagnose. All these aspects affect the quality of life for a number of patients suffering from anxiety problems.

Keywords: anxiety, GAD, generalized anxiety disorder, mental health, psychiatric disorders

Streszczenie:

Zaburzenia lękowe, w tym uogólnione zaburzenie lękowe, są najczęściej spotykaną chorobą psychiatryczną na świecie. Według Światowej Organizacji Zdrowia w 2019 roku ponad 300 milionów ludzi zmagало się z zaburzeniami lękowymi. Jak pokazują statystyki, co trzecia osoba na świecie doświadczy zaburzeń lękowych w ciągu swojego życia. Badania pokazują, że wielu pacjentów cierpi na zaburzenia lękowe przez kilka lat, zanim zostaną właściwie zdiagnozowani. Trudność w postawieniu właściwej diagnozy wynika głównie z niespecyficznych objawów charakteryzujących uogólnione zaburzenia lękowe, ale również współwystępowaniu z innymi chorobami psychicznymi, jak również somatycznymi. W procesie diagnostycznym pacjentów z zaburzeniami lękowym podstawowym narzędziem są kryteria DSM-V. Wykorzystywane są również formularze przesiewowe jak GAD-7 ułatwiające postawienie rozpoznania. Poza niespecyficznymi objawami oraz możliwością współistnienia z chorobami somatycznymi, wydłużenie czasu do postawienia diagnozy wynika również z utrudnionej dostępności specjalistów oraz stygmatyzacji chorób psychicznych. Wszystkie te czynniki powodują obniżenie jakości życia wielu pacjentów zmagających się na co dzień z problemami lękowymi.

Słowa kluczowe: zaburzenia lękowe, GAD, uogólnione zaburzenia lękowe, zdrowie psychiczne, choroby psychiatryczne

1. Introduction

Mental health is a state in which the individual is able to deal with daily life challenges and changes, take part in social life, work well, and pursue their own opportunities. It includes emotional, social, and psychological well-being. Many data show the importance of mental health issues, as it is an increasing concern in the whole world. The most common mental disease in European Union (EU) is anxiety disorder, including the generalized anxiety disorder (GAD) [1]. GAD occurs as an unreasonable worrying thought about minor issues that lasts at least 6 months [2]. First symptoms of anxiety appear often in adolescence, and early adulthood [1].

The etiology of anxiety disorders is not fully understood, it is also controversial, and there are many theories about it [2]. Among all theses that lead to developing GAD, an important one is related to patients' environment. Individuals who have encountered significant adversity are at a higher risk of developing an anxiety disorder. Genetics is a crucial aspect of GAD causes, as research on twins revealed 32 percent of inheritance [3]. From a psychological point of view, overestimation of level of risk and feeling heightened fear in relatively low-risk situations can occur in patients prone to developing GAD [2]. Biological theory has been an object of research about the causes of GAD. Studies suggest that some overstimulated neuronal circuits and brain areas can lead to developing anxiety. Among the regions in the brain responsible for worrying are the anterior cingulate, and dorsal medial prefrontal cortex. Patients suffering from GAD do not have the ability to stop worrying because the activity of the above mentioned areas is dysregulated [4].

The prevalence rate depends on several factors, including age, sex, country, socioeconomic status, and parenting. GAD appears 2 to 3 times more often in women than in men. Furthermore, a higher rate is also observed in people at 14 to 65 years old, the United States and European citizens, with low economic status and overprotective breeding [5,6]. Moreover, an essential aspect of developing anxiety disorders is the presence of mental illness in parents [5].

Mental illnesses can be coded by the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) or the Diagnostic and Statistical Manual of Mental Disorders V (DSM-V) by healthcare providers. ICD-10 is a global, well-known system used to code illnesses, disorders, and medical conditions. Medical conditions related to anxiety are coded as F.40 and F.41. Anxiety disorders are a group of many dysfunctions, including phobic anxiety disorders (F.40) and other anxiety disorders (F.41). We can divide anxiety disorders into panic disorders, also known as episodic paroxysmal anxiety (F.41.0), generalized anxiety disorder (F.41.1), mixed anxiety and depressive disorder (F.41.2), and other mixed anxiety disorders (F.41.3) [7]. Generalized anxiety disorder is one of the most common psychiatric diseases among people.

In this review, we would like to pay special attention to dealing with GAD, as it is a global problem affecting many people of all ages. Moreover, unfortunately, many people do not have the opportunity to be willing to reach out and seek help despite the existence of treatment options because of discrimination and stigmatization of mental illnesses [8].

2. Epidemiology

Anxiety disorders are the most common mental illnesses. It is believed that a third of the world's population will suffer from anxiety disorders during their lifetime. However, it is hard to evaluate the growth of the number of patients affected by anxiety disorders, mainly due to unclear data. The classification system of anxiety disorders has been changing over the past decades. The underrecognition of anxiety has been also observed as a result of stigmatization, as it delays seeking medical attention. All these factors influence the number of cases diagnosed as GAD. That is why it is challenging to compare epidemiological data over the years [9].

However, some research has established that there is a constant growth of anxiety disorder cases over the past few decades. In 1990, more than 30 million cases were noted, while in 2019 there was an increase of around 50 percent [5]. On the other side, according to the World Health Organization (WHO) in 2019, mental disorders occurred in 970 million people worldwide, and 301 million of them suffered from anxiety disorder, including nearly 20 percent of people under 18 years old. Sadly, the COVID-19 pandemic at the beginning of 2020 led to the worsening of the problem and caused a marked approximately 27 percent increase in the number of the most common mental disorders cases in one year [8].

As mentioned in epidemiological data, anxiety disorders occur twice more often in women than in men. It is considered that the increasing number of cases in women is due to many factors, including sexual abuse in childhood, genetic, and biological triggers, chronic stressors, and marriage status. As unmarried, separated, or divorced women present anxiety manifestation more often [10,11]. An association between lower education status or somatic health problems and chronic agitation has been established [11].

3. Diagnostic process

Identifying anxiety disorders is a challenge for clinicians these days, as symptoms are not specific, and anxiety may occur in a number of other diseases. The WHO maintains that anxiety disorders are an important cause of disability [12]. The research shows that nearly half of patients diagnosed with GAD have not been properly diagnosed for at least 2 years [13]. Symptoms of the anxiety disorders can begin in all ages, but the peak is observed in the middle age. The onset of GAD is estimated at 31 years old [9]. The DSM-V criteria

help to establish the diagnosis in patients suffering from GAD. To identify the disease, symptoms including feeling tenacious, and worrying during daily-life situations should occur most days for at least 6 months. In addition, there have to be observed at least 3 of 6 other manifestations, such as agitation (1), being nervous, unstable, or tense (2), having a problem concentrating (3), presenting some symptoms of insomnia (4), muscular contraction (5), getting exhausted easily (6). However, from the above mentioned signs, only one has to be present in children to diagnose GAD. Moreover, patients are not able to control their symptoms in an efficient way. What is more, it has been noted that anxiety negatively influences many areas of a patient's life, including social, occupational, or other. The external causes, such as the effects of taken substances or another medical condition of the current state, have to be excluded. Finally, disturbances cannot be explained by another mental health disorder [14]. In diagnostic and examination of the intensity of GAD, scales such as the GAD-7, the PROMIS Emotional Distress-Anxiety-Short Form, and Severity Measure for Generalized Anxiety Disorder-Adult form can be used. The GAD-7 is a specific and sensitive screening tool. The form is helpful in establishing the diagnosis and providing information about the severity of symptoms. Individuals can reach 0 to a total of 21 points, reaching at least 15 points equals severe anxiety [15]. The PROMIS Emotional Distress-Anxiety-Short Form is a 7-item measure that gives knowledge of adult patients' mental condition in the last week [14]. To assess the severity rate of GAD, patients fill out the Severity Measure for Generalized Anxiety Disorder—Adult form about their feelings in the past 7 days. These tools allow for introducing the appropriate treatment and improving patients' quality of life [14].

In recent studies, a high overlap between GAD and major depression has been found. There has been also a notable association between presenting GAD and dysthymia symptoms in psychiatric patients [9]. Also, bipolar disorder can be observed with anxiety disorders. Anxiety disorders can also be comorbid with somatic disorders, such as endocrine diseases including hyperthyroidism, and pheochromocytoma, cardiac diseases or symptoms including chest pain, and arrhythmia, respiratory tract illnesses such as chronic obstructive pulmonary disease, asthma, or neurological – epilepsy, and transient ischemic attacks [7,11,16]. The symptoms of anxiety disorders are non-specific, as other psychiatric, or somatic illnesses conduce to similar clinical manifestations. Assessing a diagnosis, other potential diseases should be taken into consideration, including those which can be comorbid [7].

4. Treatment

4.1 Pharmacotherapy

Medical treatment, as well as psychotherapy, is approved in the primary treatment of anxiety disorders. However, according to some research, in moderate to severe cases, combining these two methods can be the most effective [17]. Choice of the most appropriate pharmacological treatment should be based on the adverse effects of medication, patients' previous treatment, presented symptoms, and severity of anxiety. Selective serotonin reuptake inhibitors (SSRIs) and serotonin–norepinephrine reuptake inhibitors (SNRIs) are considered the mainstay therapy in patients with GAD. Increasing serotonin neurotransmission can positively influence GAD symptoms by inhibiting overstimulated areas in the brain [3]. Many studies establish SSRIs such as citalopram, escitalopram, fluoxetine, paroxetine, and sertraline as the most efficient pharmacological treatment of GAD, and many other mental health disorders, including major depressive disorder, other anxiety disorders, and obsessive-compulsive disorder. Wide usage of SSRIs leads to a high rate of prescription of these agents. The level of the effect depends on the dose used in treatment, the type of agent, and patient's response. The highest doses of medication and at least 4 weeks of treatment should be introduced to evaluate the treatment efficiency. Although, it is recommended to take the first-line treatment for 12 weeks to achieve therapeutic success [18]. Moreover, treatment should be continued for 6 to 12 months after improvement to reduce the risk of relapse [19].

SSRIs lead to increasing the deficient serotonin concentration by inhibiting its reuptake in the presynaptic cell. SSRIs are relatively well tolerated, and the overdose is not related to severe consequences [20]. However, some potential adverse effects can be observed, including gastrointestinal problems (weight gain, nausea), sedation, tiredness, sexual dysfunction, or sleep-related problems such as insomnia [21]. SNRIs such as duloxetine or venlafaxine are also considered as a first-line treatment of anxiety disorders. SNRIs inhibit the presynaptic neuronal uptake not only of serotonin, but also norepinephrine, which leads to the growth of its concentration. SNRIs are characterized by good tolerance and effectiveness. Adverse effects are similar to those observed in SSRIs, but also dry mouth, increased sweating, and blurred vision can occur. Second-line treatment consists of tricyclic antidepressants (TCA), including amitriptyline, imipramine, calcium-channel modulator, such as pregabalin, and antipsychotics, e.g. quetiapine [14,19]. Benzodiazepines and benzodiazepine-receptor agonist agents cause a list of effects, e.g. anxiolytic, hypnotic, anticonvulsant, by affecting GABA-receptors [22]. Benzodiazepines are usually used in short-term treatment of more

intense expressions of anxiety for 4 to 8 weeks because of their addiction potential. Most often evaluated in GAD are alprazolam, diazepam, bromazepam, and lorazepam [19]. Long onset of action benzodiazepines, such as clonazepam, cause less potential for abuse and decreased rebound [23]. Improvement can be easier reached by combining antidepressant and benzodiazepine agents. However, this combination is related to a higher risk of developing tolerance [14]. Moreover, there are many other available medicaments to deal with anxiety disorders. These are antihistaminergic agents, such as hydroxyzine, and monoamine oxidase inhibitors, including isocarboxazid, or phenelzine [14].

Table 1. Pharmacological treatment of generalized anxiety disorder (GAD)

Group of agents Medication Common side effects		
SSRIs	e.g. citalopram, escitalopram, fluoxetine, sertraline;	weight gain/loss, sexual dysfunction, gastrointestinal problems, forgetfulness, tiredness
SNRIs	e.g. venlafaxine, duloxetine	headache, high blood pressure, seizures, insomnia, gastrointestinal problems, xerostomia
Benzodiazepines	e.g. alprazolam, diazepam, bromazepam, lorazepam	sleepiness, forgetfulness, drowsiness, xerostomia, ataxia, high risk of developing dependency
TCA	e.g. amitriptyline, imipramine	drowsiness, cardiac problems, xerostomia
Antipsychotics	e.g. quetiapine, olanzapine	sleepiness, hypercholesterolemia, drowsiness, leukopenia

4.2 Non-pharmacological interventions

4.2.1 Education

An important aspect of non-pharmacological treatment of anxiety disorders is patient's education. It allows patients suffering from anxiety to control their symptoms better during their lifetime [24]. The education process consists of changing the patient's lifestyle, which is reducing the stress or symptom triggers, focusing on enhancing the quality of sleep, or quantity of physical activity. The triggering factors which patient should avoid include caffeine or stimulant use, smoking, and stressors [25]. There are also many studies evaluating the positive impact of physical activity on mental health. According to one of them, exercise proves to be an effective method of reducing anxiety sensitivity [26].

4.2.2 Psychotherapy

Data from several studies establish that psychotherapy is as effective as pharmacotherapy in anxiety disorders treatment. The choice of the treatment method depends mainly on

patient preferences [27]. To reach the positive effects of psychotherapy, the course should last at least 8 weeks [14]. Among the psychotherapy interventions, cognitive behaviour therapy (CBT) is the first line method. CBT consists of functional analysis, and a cognitive approach, which means self-observation, recognition of thoughts, and emotions in order to change the thinking patterns to a more objective approach [28]. The aim of CBT is to learn how to deal with adversities by replacing the wrong mode of thought with more realistic, practical thinking, and modifying the attitude to difficult situations [14,19].

Another psychotherapy intervention used in anxiety treatment is mindfulness, which seems to be as effective as CBT [29]. Mindfulness is a technique that leads to the reduction of stress by focusing on present moments and emotions [14]. Although, studies evaluating meditation efficiency were focused mainly on anxiety symptoms, not anxiety disorder [25].

Recent studies show significant differences in conclusions about efficiency of psychodynamic therapy, also known as psychoanalytical therapy (PDT) in GAD treatment. One trial finds PDT as effective as CBT. On the other hand, other research suggests that PDT is less efficient acutely and in later follow-up than CBT. The PDT leads to insight into past experiences, unconscious actions, defense mechanisms, or emotions, which helps to achieve awareness of them [19,30]. However, several essential questions remain about the effects of PDT in anxiety disorder treatment, as a result, further research has to be conducted to determine PDT effectiveness [19].

It has been observed that psychotherapy gives more durable remission when compared with medication [14]. However, studies show that the most effective is a combination of pharmacological and non-pharmacological treatment, as it results in long-lasting relapse [31].

5. Conclusion

The non-specific clinical presentation and potential comorbid diseases make the diagnostic process of anxiety disorders more difficult. Unfortunately, a number of patients are underdiagnosed, or diagnosed even after years of the beginning of anxiety symptoms, because of the lower availability of specialized medical care. The stigmatization of mental illnesses in public life is another aspect that delays the establishment of GAD. As studies show, the most effective treatment of anxiety disorder is to combine pharmacotherapy and psychotherapy. That combination of therapeutic methods minimizes the risk of relapse of the anxiety symptoms. It seems that it is crucial to educate society and spread knowledge about mental health problems to avoid stigmatization. Another aspect that plays a key role is to ease the availability of psychiatric specialists. What is more, further epidemiological

research can allow creating effective anxiety disorder screening programs that facilitate the diagnostic process in patients with mental health problems. Due to the wide spread of GAD in the population, clinicians of various specialties should know the therapeutic procedures. Moreover, to prevent the development of anxiety disorders, some methods such as CBT, or education can be useful, but some research demonstrates the negligible benefits of these interventions. It seems that introducing all these systematic procedures can improve psychiatric patients' quality of life. Further studies focusing on prevention and efficient treatment methods of anxiety disorders should be carried out.

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