

# Pharmacological and Psychotherapeutic Treatment of Anxiety Disorders in Modern Clinical Practice

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## Abstract

While a degree of anxiety is expected and inevitable in our daily lives, persistent and disproportionate feelings of worry or fear, difficulty concentrating, and physical symptoms such as rapid heartbeat, muscle tension, and insomnia are signs that anxiety is out of control. In these cases, anxiety disorder arises, a mental health disorder that requires treatment and appropriate treatment. Two remain the most basic approaches to anxiety management and treatment of anxiety disorder, and these are: medication and psychotherapy. Anxiety disorder does not go away on its own. The fact that there are occasional periods of remission in symptoms does not mean that the problem is over. This paper presents the aforementioned two methods of treating anxiety disorders.

**Key Words:** anxiety; anxiety disorders; pharmacotherapy psychotherapy

## Introduction

Stress is a normal physical and mental reaction that is caused when the person is called upon to face difficult and demanding challenges situations. Stress manifests itself in physical tension and firing multiple and unpleasant thoughts cerebrally. The modern man constantly faces stressful situations. Its intensity and frequency anxiety causes difficulty in dealing with his daily obligations. Anxiety is that state of emotions, where they prevail feelings of impending danger, tension and nervousness. The autonomous nervous system works in such a way, which leads to its change respiratory rate, in increased heart function, in dry mouth, in sweating, in musculoskeletal discomfort and in a feeling of weakness [1]. Therefore, stress is related to both psychophysiological behaviors and emotional and cognitive changes that react to a conscious or unconscious danger. It is also produced by specific brain mechanisms. It is caused by a complex response system that includes emotional, behavioral, biological and cognitive elements. Emotions such as anger, frustration and fear, irritability and depression act as inhibitors of the individual's ability to concentrate and willingness to cooperate. Worry, for example, is a component of it stress that can be considered as a cognitive process that prepares the person to prevent future risk with a particular feature of the dysfunction of his coping system. This psychosomatic weakness of the person includes either intense worries, which do not help to predict real future danger, or intense fear reactions, without substantial threat. The main characteristics of stress are categorized as follows:

- behavioral (e.g., avoidance),
- cognitive (e.g., concentration difficulties),

- biological (e.g., dizziness) and
- interpersonal (e.g., difficulty forming social relationships).

When the pressure, which comes from anxiety, lasts and intensifies it can cause adverse immune, cardiovascular and central effects nervous system (Anderson, 1998). If chronic stress is not treated it causes more serious conditions, such as insomnia, a weakened immune system, high blood pressure, and muscle pain. It can, finally, lead to disorders in growth, depression, heart disease and obesity. [6]

## Pharmacological treatment of anxiety disorders

Pharmacological treatment is indicated by the intense, pathological anxiety that the individual experiences as an unpleasant emotional state, as a subjective experience of fear and anxiety, and reduces his/her functionality. The great progress made in recent years with the development of neurobiology has led to a better understanding of the biology of anxiety, helped in a better diagnostic classification and in the discovery of new treatments for the various categories of anxiety disorders. Anxiety and anxiety disorders are treated symptomatically with the use of special medications, which include anxiolytics, antidepressants and medications of other categories. In summary, the therapeutic methodology follows two strategies: [7]

- **Short-term treatment.** It aims to relieve the sufferer of symptoms and restore him/her to his/her previous functionality.

- **Long-term treatment.** It aims to maintain, in some cases, the therapeutic effect and prevent the occurrence of a new anxiety episode in the future.

Before implementing short-term drug therapy, an accurate diagnosis should be made and it should be clarified whether the anxiety symptomatology is secondary, that is, whether it is due to another mental disorder, such as depression, schizophrenia, substance use or to a physical disease, such as hyperthyroidism, cerebrovascular syndrome, etc. In these cases, treatment of the primary disease is preferred. Mild anxiety or anxiety that is due to psychotraumatic stress or to common personal and interpersonal problems, if it does not manifest a pathological character, is not an indication for anxiolytic therapy and should be tried, where possible, short-term treatment with counseling, stress management, exercise or psychotherapy (Krzych, et al. 2009). The possibility that anxiety is a concomitant symptom of depression should be considered, especially when it does not respond satisfactorily to treatment. It is often observed in clinical practice that depressed patients with concomitant anxiety take benzodiazepines without concomitant antidepressant treatment, although there is evidence that benzodiazepines may worsen depressive symptoms. Panic disorder and generalized anxiety disorder are the two most common anxiety disorders that, together with anxiety associated with a psychotraumatic event, require immediate anxiolytic treatment. [2]

### Short-term treatment

Short-term drug therapy can last up to 6 months after symptoms have resolved and includes benzodiazepines, azapirones (buspiron), antidepressants and other pharmaceutical agents. In the short-term treatment of anxiety, long-term administration of benzodiazepines should be avoided, due to the possibility of dependence, their effect on the level of alertness and their interaction with other drugs [1]. It is generally recommended that they be administered for a period of up to two weeks in continuous or intermittent administration. Treatment begins with small doses that are gradually increased every few days until the desired effect is achieved or adverse effects occur, at which point the dose is reduced or further increased at a slower rate. [2]

Buspiron is a non-benzodiazepine anxiolytic and has been shown to be effective in generalized anxiety disorder. It is the prototype substance of a new chemical class of substances called azapirones. They exert their anxiolytic action as partial agonists of the 5-HT<sub>1A</sub> serotonin receptors. The anxiolytic effect appears after 1-2 weeks and the maximum effect is achieved after 4-5 weeks of treatment. Due to the delayed onset of the effect, it is advisable to co-administer a benzodiazepine for 1-2 weeks for an immediate anxiolytic effect. It is not effective in panic disorder [1].

Among the tricyclic antidepressants, clomipramine (Anafranil) and among the selective serotonin reuptake inhibitors (SSRIs), fluoxetine (Ladose), fluvoxamine (Dumyrox), paroxetine (Seroxat), citalopram (Seropram), and escitalopram (Cipralext, Xeristar), have proven effective in the treatment of panic disorder and generalized anxiety disorder. While, among the newer antidepressants, venlafaxine (Efexor) and duloxetine (Cymbalta), specific serotonin and noradrenaline reuptake inhibitors, with proven antidepressant activity, have proven effective in panic disorder and other anxiety disorders, such as social phobia and obsessive-compulsive disorder. Other newer antidepressants, such as specific serotonergics (nefazodone, Nefirel) and noradrenergics and specific serotonergics (mirtazapine, Remeron), are expected to prove equally effective in the treatment of anxiety disorders [1].

### Long-term treatment

Of the anxiety disorders, generalized anxiety disorder, panic disorder, obsessive-compulsive disorder and phobic disorders usually have a chronic course and the application of long-term and conservative treatment is often necessary to maintain the therapeutic effect and prevent the occurrence of a new stressful episode in the future. The necessity of applying conservative treatment is dictated, in addition to their chronic course and by the frequent relapse after discontinuation of short-term treatment, the psychosocial and

professional decline with a negative impact on the patient's quality of life, the development of other disorders in their development (comorbidity), as well as the proven effectiveness of maintenance treatment [1].

### Effects of drug therapy

The effects of long-term drug treatment of anxiety disorders are a subject of much research. The effects of long-term treatment with benzodiazepines include reduced attention, psychomotor coordination and alertness, cognitive impairment with memory impairment and a reduction in the individual's ability to respond to daily activities. The above effects may affect alertness and driving and may be exacerbated by the use of alcohol and drugs (Avgoustatos 2008). In addition, physical dependence is a potential consequence of long-term use of benzodiazepines, with withdrawal symptoms occurring after their discontinuation. The clinical picture includes pre-existing symptoms of anxiety as well as new symptoms, such as anxious mood, nervousness, insomnia, tension, restlessness, nausea, lethargy, etc. The withdrawal syndrome appears after 6-12 hours with short-acting preparations (alprazolam, lorazepam) and after 24-36 hours with long-acting preparations, reaches its maximum intensity after 2-4 days and subsides after 1-3 weeks. It develops mostly after four or more months of continuous intake [1]. Finally, regarding the use of antidepressants, during long-term administration of tricyclic agents, approximately 1/3 of patients do not tolerate and discontinue treatment prematurely, due to nervousness, orthostatic hypotension and allergic reactions and other symptoms. Abrupt discontinuation of tricyclics and SSRIs causes withdrawal syndrome, mainly in the form of recurrent symptoms, such as tremors, nausea, headache, insomnia, etc., and therefore requires slow and progressive discontinuation [3].

### Psychotherapeutic treatment

Cognitive-behavioral psychotherapy is a synthesis of cognitive and behavioral approaches. The goal of the intervention is to identify dysfunctional patterns of thought and behavior, resulting in certain phases of therapy being given greater emphasis on behavioral techniques and other phases on cognitive techniques [3]. The core of cognitive-behavioral psychotherapy consists of three basic principles:

- **Cognitive function influences behavior.**
- **Cognitive function can be changed and controlled.**
- **Desired changes in behavior can be influenced by cognitive changes.**

The most important difference between traditional behavioral therapy and cognitive-behavioral therapy is the way in which the therapist interprets to the patient the improvement in his condition during therapy. Behavioral therapists interpret therapeutic improvement through the rules of learning, while cognitive therapists interpret it as a result of changing the person's perceptions, beliefs and way of thinking. In this context, the cognitive-behavioral approach has assimilated behavioral techniques, which are however used with a different reasoning. For example, the exposure technique in behavioral therapy aims at familiarizing the individual with the phobic object, while in cognitive psychotherapy at questioning and refuting the person's unrealistic beliefs about the phobic situation [4]. Beck (1976) argues that, although the goal of behavioral intervention is symptom relief and the intervention directly addresses the symptom and the person's overt behavior, the way in which this intervention ultimately works can be analyzed in cognitive terms. For example, a person who manages, through behavioral exercises, to be assertive in a situation (e.g., to protest because someone took their place in line at the bank), after this experience has the opportunity to challenge the unrealistic thoughts that were behind their fear of being assertive (e.g., "If I assert myself, the other person will get angry and curse at me"). After a successful experience of assertiveness, the individual may understand that his thoughts about the manifestation of assertiveness had no realistic basis ("I was assertive and yet no one got angry or insulted me") [4]. Behavioral psychotherapies are short, involving ten to fifteen sessions, rarely more, lasting between one and two hours. Since the

beginning of the century until today, many dozens of techniques have been described. The most widespread are [4]:

### Muscle relaxation

First described by physician and physiologist Edmund Jacobson in 1934, it is based on the observation that anxiety is almost always accompanied by muscle tension or contraction. There are several variations. Progressive muscle relaxation consists of contracting specific muscle groups (for five seconds), while the rest of the body is relaxed. The patient is then asked to relax this group of muscles for 10-15 seconds, before the process continues with another group of muscles. The individual is trained to locate the muscles in the various zones of the body, face, forehead, jaws, eyes, neck, shoulders, arms, legs.

### Breathing control

In anxiety disorders, breathing patterns have been described that are believed to be related to the etiology of these disorders. Hyperpnea, for example, either in the form of rapid and deep breathing that occurs episodically or in the form of habitual, rapid breathing, is implicated as a pathophysiological factor contributing to the clinical manifestations of the crisis. Indeed, it has been estimated that at least 50% of patients experience hyperpnea during the panic episode. The patient is trained to learn a breathing rate incompatible with that of hyperpnea. There are various ways of learning that aim to control breathing, such as breathing through the nose (instead of the mouth), diaphragmatic (instead of the painful thoracic) and at a rate of approximately 10-12 breaths per minute, a normal range. The patient can use the new type of breathing at the first signs of anxiety or panic.

### Systematic desensitization

One of the most frequently used techniques. It consists of exposing the patient, while he is in a state of emotional calm (relaxation), to a small amount of fear. Initially, the phobic object is presented in his imagination. With each repetition, the intensity of the fear decreases and soon reaches zero. Then we present a scene of fear that causes a little more anxiety than the previous one. We continue this process until the fear reaches zero again. If the patient cannot imagine the phobic situation realistically enough, then the therapist can use images or even real situations.

### Cataclysmic technique

It consists of exposing the person to intense anxiety for a long time (up to an hour). When the phobic person is exposed to the phobic situation, their anxiety will reach a certain level and then begin to subside on its own (familiarization). The process is repeated in several sessions until the anxiety reaches zero (extinguishment). This teaches the patient that he does not need to resort to avoidance behavior in order to reduce his anxiety. From a theoretical point of view, it is most likely that this technique is linked to what we call "protective inhibition", that is, when a stimulus increases excessively, the body makes a greater effort to deal with it. In the cataclysmic techniques, the therapist accompanies the individual in his actual exposure to the feared situation. The presence of the therapist seems to act in multiple ways (imitating a model, emotional competition, etc.). Anxiety can sometimes be

intense and some do not want to continue this therapy. However, the cataclysmic technique is still among the first choices for obsessive-compulsive symptoms and phobias. □ Social skills training: It is an educational method in which appropriate social behaviors are demonstrated by the therapist and then tested by the patient, in order for the latter to gain greater effectiveness in his interpersonal relationships. During the learning of these skills, several behavioral techniques are used, such as role playing, imitation of a model, exposure, etc.

### Conclusions

In modern clinical practice, pharmacological treatments for anxiety disorders have become more tolerable and numerous, with a better understanding of the neurobiological mechanisms involved. Selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs) are considered first-line treatments for most anxiety disorders, except for specific phobia where exposure therapy is preferred. (PubMed Central). Psychotherapeutic treatments for anxiety disorders in modern clinical practice include both psychological and pharmacological interventions, often used in combination for severe cases. Cognitive-behavioral therapy (CBT) is a well-established and effective psychological treatment, while pharmacological options include antidepressants and other medications. Complementary treatments like exercise, mindfulness, and yoga can also be helpful, particularly for mild anxiety, but should not replace established treatments

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