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Chapter

Cognitive Behavioral Therapy in Panic Disorder

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Abstract

Panic disorder is an anxiety disorder characterized by panic attacks involving sudden, intense, unexpected, and recurrent fear and worry about possible future attacks. Cognitive behavioral therapy for panic disorder, which requires effective treatment, is a method that has been shown to be useful in various studies. In this section, we aimed to review the cognitive behavioral therapy applied for panic disorder. First of all, information about the definition, epidemiology, and clinical presentation and treatment options of panic disorder will be given. Then, in accordance with the main purpose of the section, the assumptions and methods of cognitive behavioral therapy for panic disorder will be explained. Finally, studies showing the effectiveness of cognitive behavioral therapy in panic disorder will be reviewed.

Keywords: panic disorder, cognitive behavioral therapy, treatment

1. Introduction

Panic disorder (PD) is a chronic psychiatric disorder characterized by unexpectedly recurring panic attacks. A panic attack is a period of intense fear that begins suddenly and lasts from a few minutes to an hour. Panic attacks can be observed in many different psychiatric and medical disorders. Patients with panic disorder experience anxiety about future attacks, for a month or longer. They exhibit recurrent untriggered panic attacks or behavioral changes related to attacks (avoiding certain situations and having repeated medical examinations) [1]. Panic attacks in PD often occur without any previous symptoms and intense physical symptoms (i.e. rapid heart rate, shortness of breath, dizziness, numbness, and tremor) and cognitive symptoms (i.e. loss of control and fear of death) are observed during the attacks. Since the attacks occur unexpectedly and cannot be controlled, the distress caused by panic attacks increases [2].

In the general population, about a quarter of people with panic disorder also have agoraphobia. The lifetime prevalence of panic disorder is 3.7% without agoraphobia and 1.1% with agoraphobia [3]. Panic attacks are more common than panic disorders and one-third of individuals experience panic attacks at some point in their lives [3–5]. PD is a picture that can show a chronic course and symptoms can recur over time [1]. In a study that followed individuals with anxiety disorder for 12 years, it was reported that the recurrence rate of PD was 56% [6]. It is observed that recurrence rate increased when sub-threshold symptoms were included [7]. In addition to the
recurrence of panic symptoms, other anxiety disorders may develop over time [8]. Panic disorder can lead to significant deterioration in the social and occupational functionality of individuals, worsening of their physical health, and a significant decrease in their quality of life [9, 10].

Three types of interventions are recommended for the treatment of individuals with panic disorder. Among these interventions, psychotherapy has been proved to have the longest duration of action and followed by pharmacological therapy and self-help. Cognitive behavioral therapy (CBT) is a form of psychological treatment that has been shown to be effective for PD and it is recommended in the guidelines [11–13].

In this section, application of CBT in PB will be discussed in detail.

2. Cognitive behavioral therapy in panic disorder

In panic disorder, CBT is the most extensively supported psychosocial intervention method by clinical research. The aim of an effective PD treatment is not only to reduce the frequency and severity of panic attacks but also to reduce avoidance and anticipatory anxiety and to reach the patient's level of functionality before the disorder. CBT, which has been shown to be effective in achieving these goals with evidence-based data, is at least as effective as drug treatments in the treatment of PD. Another important advantage of this treatment is that it is effective in reducing recurrences. As shown in many studies, CBT is the only first-line treatment modality for PD, apart from drug treatments [14–16]. In addition, it is also an effective therapeutic approach for a significant number of patients who refuse to use medication.

From a cognitive and behavioral point of view, the disorder can be conceptualized as intense fear caused by bodily sensations, especially autonomic arousal symptoms, in individuals with psychological and genetic predispositions [17, 18]. It usually develops suddenly, without an identifiable threat [18, 19]. After a sudden panic attack, the person may start to worry about following panic attacks and focus more on the somatic symptoms of panic attacks [20–22]. During a panic attack, patients experience physical symptoms including restlessness, shortness of breath, chest tightness, palpitation, sweating, dizziness, numbness, and tingling. The patients interpret the panic attack as having a heart attack, paralysis, fainting, losing control or going crazy, and often dying. These comments and fears form the cognitive symptom pattern of the attack and increase the patient's state of restlessness or anxiety [23, 24]. Panic attacks can trigger some active avoidance actions. Patients try to stay away from situations, places, or events that may cause problems in order to avoid the anxiety caused by the panic attack and to protect themselves. This avoidance behavior may turn out to be quite severe from time to time, and patients may experience a panic attack when they encounter the avoided situation or event [23]. Agoraphobia, which is one of these avoidance behaviors, is defined as the fear or avoidance of some situations or places (i.e. waiting in line, crowds, being alone at home, shopping malls, driving, restaurants, movie theaters, large and open spaces, etc.) in which the person thinks it may be difficult to escape or help may not be available or they feel incompetent or embarrassed. For the first time, agoraphobia was included as an independent diagnosis separate from panic disorder in the DSM-5 [1].

CBT yields better results in individuals who have good problem-solving skills, are willing to solve problems, and have high motivation. Chronic stressors or problems regarding workplace, interpersonal relationships, financial conditions, and other
intervening medical conditions may exacerbate the symptoms of the disease [25]. These conditions may make it difficult for the patient to comply with the therapy and drug treatment may be required when needed.

2.1 Evaluation

Before CBT, the patient should be evaluated in detail. The medical and psychiatric history of the patient should be taken in detail and substance-related conditions should be questioned for the diagnosis. Panic symptoms (palpitations, sweating, shortness of breath or difficulty breathing, chest pain or tightness, dizziness, paresthesias, abdominal pain, nausea, depersonalization, derealization, fear of death, and fear of losing control or going crazy) should be described in detail; the type, location, severity, and intensity of symptoms should be questioned. In addition, the beginning of the symptoms, whether there is any triggering factor, how long it takes to peak, and how long it lasts should be questioned. It also should be questioned whether the symptoms impair the person's functionality, cause any avoidance behavior, or create anticipatory anxiety. It should be noted that panic attacks can also be seen in many medical conditions. For this reason, a detailed medical history should be taken and supported by laboratory tests when necessary. Cardiovascular diseases (arrhythmia, hypertension, angina, congestive heart failure, anemia, mitral valve prolapse), respiratory system diseases (asthma, COPD, pulmonary emboli, etc.), endocrine disorders (hyperthyroidism, DM, cushing's syndrome, pheochromocytoma, etc.), neurological diseases (SVO, meniere, epilepsy, etc.), and drug changes (change in drug dose or addition of drugs such as theophylline, amphetamines, antihistamines, and steroids) should be evaluated. Psychiatric history should be taken in detail, and psychiatric conditions with panic attacks or psychiatric conditions that may accompany PD (such as anxiety disorders, trauma history, and substance use) should be questioned. In addition, the family history of a psychiatric disease, especially anxiety disorder, and the presence of a recent psychosocial stressor should be questioned.

Evaluation tools can be used for diagnosis and to monitor response to treatment. The gold standard instrument is the Panic Disorder Severity Scale [26]. It is a seven-item scale that questions the basic characteristics of the disorder such as attack frequency, attack intensity, anticipatory anxiety, phobic avoidance, avoidance of bodily sensations, and impaired functionality. The scale is widely used and has good reliability and validity.

The main purpose of therapy is to reduce reactivity to panic-related sensations, to develop alternative thoughts instead of catastrophic interpretations, to eliminate avoidance and safety behaviors, and to strengthen the ability to tolerate anxiety [27].

2.2 CBT techniques

2.2.1 Psychoeducation

The treatment begins with psychoeducation, in which the general appearance of panic disorder and agoraphobia, how it begins, why panic and anxiety originate, and the cycle formed by physical, cognitive, and behavioral components are explained [28]. Psychoeducation usually continues throughout the therapy. Explaining the physiological changes that occur during a panic attack and describing the psychophysiology of the fight-or-flight response is part of the education. By emphasizing that the physiological changes that develop during anxiety serve to adapt, it is aimed
to correct the misconceptions, common myths, and false beliefs about panic and panic symptoms that contribute to anxiety. The physical symptoms of anxiety are often not known by the patients, and the physical symptoms experienced during intense anxiety can be quite frightening for the patient. A detailed explanation regarding how the somatic symptoms develop and these symptoms are caused by anxiety can relieve the patient. Written documents such as booklets describing the bodily symptoms of anxiety and how to deal with them can be delivered to the patients.

2.2.2 Self-monitoring

The patient is asked to keep a record of the attacks and daily mood throughout the therapy with the aim of observing himself correctly [28]. Self-monitoring is introduced in the first session of the treatment and continued throughout the entire treatment. It involves continuous assessment of changes in panic, anxiety, and avoidance, promoting self-awareness and acting as a therapeutic tool. The patient is asked to keep at least two self-monitoring records and is monitored while keeping a self-monitoring record. The first record is the panic attack record, which will be filled after each panic attack, and includes clues, the most distressing situations, symptoms, thoughts, and behaviors. The second record is the daily mood record, which is filled in at the end of the day and includes general and average levels of anxiety and depression. Apart from these two records, the patient may also be asked to keep a record of daily activities and avoided situations.

2.2.3 Breathing techniques

During anxiety, people’s breathing can accelerate. This can range from a less intense and prolonged state that can cause bodily discomfort to a severe state that can lead to a panic attack. The patients are taught correct breathing techniques in order to teach them to control their breathing when they are panicked. They are trained for slowing down their breathing and try to stay in control and calm. Breathing techniques include slow and abdominal breathing exercises. Applying these techniques regularly is very important even when the patients are calm. Applying these techniques only when the anxiety and stress level is very high (during a panic attack) may cause the patients to think that the technique does not provide enough benefit and, therefore, does not work for them [29, 30]. In order to teach the breathing techniques to the patient correctly and to make them get used to these techniques, it may be required to apply them for 5–10 minutes a day.

Breathing techniques [31]:

- Sit comfortably or lie in bed (you can close your eyes if you prefer).
- Release your muscles as much as possible.
- Breathe in through your nose in four seconds.
- Hold the air you breathe in for two seconds.
- Release your breath through your mouth, spreading it over six seconds.
• Take a short break and inhale again through your nose for four seconds, hold for two seconds and then exhale for six seconds.

• Keep trying.

Although breathing exercises can sometimes be part of treatment, it is not considered an essential part of therapy unless there is an obvious tendency to hyperventilation, since they can become an anxiety avoidance strategy [32].

2.2.4 Progressive muscle relaxation exercises

There are many different relaxation techniques. In the following lines, progressive muscle relaxation, which is a type of somatic coping skill that involve the patient to contract and relax the muscles in certain parts of the body, will be discussed. The progressive muscle relaxation was first described by Jacobson in 1934. It is a method that allows the entire body to be relaxed by relaxation of large muscle groups in the body, voluntarily and regularly. It is a convenient treatment method for individuals with high anxiety levels and overly nervous. It teaches us to differentiate between the systematic tension and release of various muscle groups by being aware of the resulting sensation of tension and relaxation. It almost completely eliminates muscle contractions and creates a feeling of deep relaxation [33, 34].

Progressive muscle relaxation exercises [31]:

Sit comfortably, but avoid a position that will cause you to sleep. Slow down your breathing rate. When you are ready, you will stretch your first muscle. Keep stretching for five seconds, making sure to stretch each muscle group until you feel the tightness (but not pain); then you need to relax the same muscle group and feel this relaxation state for ten seconds. You will repeat this twice for the same muscle. Try to feel the difference between your muscle being tense and relaxed.

• First, clench your fist to stretch your right hand and lower arm, hold for five seconds, then release, and feel this relaxed state in your lower arm for ten seconds. Then repeat it again

• Now, to stretch your right upper arm, bring your lower forearm close to your shoulder, inflating the biceps. Feel the tension for five seconds and release and feel the relaxed state for ten seconds. Then, repeat the same action.

Continue stretching and relaxing exercises with these muscle groups:

• Left hand and lower forearm

• Left upper arm

• Forehead (raise your eyebrows as high as possible to make you look surprised)

• Eyes and cheeks (Tighten firmly)

• Mouth and jaw (Open your mouth wide as when yawning)
• Neck (Be slow and careful while tensing the muscles here. Lie face down if possible and raise your head as if you are looking at a point on the ceiling)

• Shoulders (tense your muscles as you bring your shoulders closer to your ears)

• Back (Push your shoulders back as if trying to bring them together)

• Chest and stomach (Breathe deeply so that your chest and stomach swell)

• Hips (Tighten the muscles in your hips)

• Right upper leg - Right lower leg (Do this slowly and carefully to avoid cramping. Tense your leg by stretching your toes toward you)

• Right foot: stretch your toes in the opposite direction

• Left upper leg

• Left lower leg

• Left foot

2.2.5 Cognitive restructuring

Cognitive restructuring is one of the important components of therapy. The aim of cognitive restructuring is to be able to produce realistic alternatives by recognizing faulty cognitions in the form of catastrophizing and overestimating the threat by questioning their validity [28]. In this intervention, the effect of thoughts on emotions is explained, and thoughts in anxious moments are captured and handled; however, it is not aimed to reduce anxiety, but to change the thoughts that cause it. For this purpose, it is necessary to detect and evaluate the negative automatic thoughts of the patient. Negative automatic thoughts are patterns of thinking that lead individuals to judge themselves, external world, and the future negatively [35]. Some methods including direct questions, detection of automatic thoughts by guided exploration, worst-case scenario technique, recording thoughts accompanied by behavior experiment, and automatic thought recording can be applied to detect and evaluate these thoughts. In “direct questions” method, the patient can be questioned about what thoughts go through his/her mind when he/she has a panic attack. For example, questions such as “What was going through your mind when you felt your heart speed up?” “If we had the chance to read your mind at that time, what would we see?” can be asked of the patient who had a panic attack. Detection of automatic thoughts by guided exploration is a method that can be applied to the patients who have difficulty remembering automatic thoughts. The situation in which the patient is experiencing distress is handled, it is tried to catch the moment when intense anxiety/panic symptoms appear, the factors accompanying intense anxiety/panic symptoms are handled and the thought is tried to be reached. Worst-case scenario technique is effectively used in patients who have difficulty capturing automatic thoughts. In this method, it is aimed to detect automatic thoughts by asking the question “What is the worst thing that could happen?” considering the environment, situation, and symptoms. In recording thoughts accompanied by behavior...
experiment method, the patients may be asked to experience a distressing situation and record the thoughts in their minds. For example, the patients can be asked to breathe quickly as they were experiencing complaints similar to the panic attacks and record their thoughts in their minds during that experience. In automatic thought recording method, the patients are informed about automatic thoughts and then they are asked to keep a record of these thoughts by using an automatic thought registration form. Once negative automatic thoughts are identified, the next thing to do is to focus on these thoughts. It is more accurate to evaluate how to comply or not these thoughts with the reality rather than characterizing negative automatic thoughts as right or wrong. The aim is to detect the negative automatic thoughts that do not fully comply with reality and to shake the belief in these thoughts by using different techniques. As the intensity of the patient’s belief in these thoughts decreases, the feeling of discomfort caused by these thoughts will also decrease. Continuous examination of negative automatic thoughts has benefits such as increasing awareness of the patient, decreasing the frequency of negative thoughts, and enabling the patients to produce alternatives when these thoughts come to their minds. The methods including examining evidence, finding cognitive distortions, the double standard technique, and alternative explanations can be used to evaluate negative automatic thoughts. Evidence review is one of the reality-based techniques in cognitive restructuring and it is based on the examination of evidence that may or may not support the reality of negative automatic thinking. This approach is aimed to raise a suspicion against this thought in the patients and to encourage a more realistic perspective by examining the evidence supporting or not supporting negative thinking. Starting with the evidence supporting negative thinking can be helpful in avoiding the patients to feel disapproved and encouraging them to be critical of their own thinking. The patients will not have much difficulty finding evidence to support it thanks to their strong belief in negative thinking. However, the therapists should be more helpful to the patients experiencing difficulty in finding counter-evidence. Automatic thoughts are also called cognitive distortions or cognitive errors. In recent years, cognitive behavioral therapists prefer the term “error” to the term “distortion” [36]. It is not necessary to investigate cognitive distortions in CBT; however, this investigation may benefit the patients in finding and coping with negative automatic thoughts. In finding cognitive distortions, the concept of cognitive distortion should be explained to the patient theoretically, thought distortions should be shared with the patient, and it should be detected which one of the patient’s negative thoughts corresponds with cognitive distortion. Then, the patient may be asked to find the cognitive distortions in the negative automatic thoughts that he/she will record himself/herself. The main purpose of this approach is to provide the patient with the chance to look at and examine their own thoughts from the outside. At this point, the most common cognitive distortions, including catastrophizing, mind-reading, fortune-telling, all-or-nothing thinking, ignoring the positive, overgeneralizing, and personalizing, can be explained to the patients. In the double standard technique, the patients are asked what a friend experiencing similar situation would do in order to reveal the nonobjective self-evaluation of the patients. Since it provides the opportunity to look at the situation from someone else’s perspective, it provides the chance to make more objective and more realistic evaluations. It can be in the form of asking questions directly, or it can be done through a scenario. In alternative explanations technique, the patients may be asked questions about what else the situation they are experiencing may mean or in what other situations it can be experienced, or how they would interpret the situation if it would happen to someone else.
2.2.6 Exposure

Exposure is the main application of CBT for PD and it aims to change the fear of the patients conditioned to certain situations and contexts by exposure to real life (in vivo) and to change the fear of bodily sensations with internal (interoceptive) exposure [28]. In vivo exposure involves repeated and gradual exposure to agoraphobic situations in the real life. It is aimed to eliminate avoidance, reduce catastrophic thoughts, and ultimately reduce fear and anxiety. Although there is evidence to suggest that non-gradual exposure to intense anxiety-provoking situations may also be beneficial, it has been observed that gradual exposure, starting with less anxiety-provoking situations, yields better results [37]. In this case, it is recommended to list the situations that the patient avoids and start with exposure to a moderately irritating situation. The aim is to expose the patient to these situations or environments until the level of anxiety decreases. Patients may exhibit safety behaviors, including avoidance. These behaviors involve the actions that a person does to prevent the disaster she or he fears. The patients may avoid environments that they think will trigger the attack or may display actions in order to eliminate the symptoms. These actions include moving slowly for fear of having a heart attack, avoiding going to places far from the hospital, checking the presence of other people around, and paying attention to the entrances and exits in closed areas. Safety behaviors may have a short-term calming effect in PD patients, however, these actions cause increased anxiety and continued anxiety in the long term. In vivo exposure also serves to reduce belief and confidence in safety behaviors. In vivo exposure can initially be done under the supervision of a therapist, then self-administered exposure assignments can be given between sessions.

The aim of interoceptive exposure is to sustain the feared physical sensations with sufficient duration and intensity by stimulating them and to make the patients experience the extinction of the resulting anxiety response. The most used method in PD is hyperventilation exercise. The patients artificially induce a panic attack. By staying in that state, they can realize that this is not actually a sign of a bad disease, but just a natural reaction of the body. They observe that this attack can be easily extinguished by breathing exercises. In this way, the belief that the symptoms patients experience are under their own control is reinforced [38]. Methods that trigger bodily symptoms such as caffeine consumption and exercise are other stimuli that can be used for interoceptive exposure. First, it is applied under the supervision of the therapist during the session, then the patient is asked to apply it himself/herself between the sessions. In the next step, in vivo exposure and interoceptive exposure can be combined. Some patients should be paid attention during the exposure to situations. In patients with cardiac (such as arrhythmia) and respiratory (such as asthma) problems, exposure should be avoided or gradual exposure should be applied since the patients will experience intense anxiety during exposure.

2.2.7 Preventing recurrence

The final stage of CBT is prevention of recurrence. In this stage, it is important to inform patients that even if they have improved, they may experience anxiety symptoms again in the future and have panic attacks again. It should be explained that this situation is not a treatment failure, it is a possible situation due to the nature of the disease, and in this case, they may need to use coping skills again.
2.3 Number of sessions

Sessions can be administered one to one or in small groups. Each session lasts 60–120 minutes and 10–20 treatment sessions are applied weekly. Positive results have also been reported in patients who received one, four, six, or seven sessions or in those who were treated intensively for two days [39–42].

2.4 Concomitant diseases and indicators of response to treatment

A significant proportion of those with anxiety disorders meets the criteria for at least one other disorder. The most common accompanying diagnoses include anxiety disorders, mood disorders, substance use disorders, and somatoform disorders [43, 44]. This raises the question of whether the presence of an accompanying psychiatric disorder affects the treatment results. While it has been observed that comorbid anxiety disorders and mood disorders do not reduce the effectiveness of CBT, the effect of comorbid depression on the effectiveness of CBT is controversial [45–50]. It is thought that the presence of a diagnosis of comorbid personality disorder may be associated with a poor response to CBT and may require a longer CBT regimen [51, 52]. Whether medical comorbid conditions affect the effectiveness of CBT has not been studied in detail, but cardiac (such as arrhythmias) and respiratory problems (such as asthma) may cause a decrease in recovery rates. The benefit obtained from CBT was found to be related to the compliance of the patients with the homework given [53].

2.5 Effectivity

Meta-analyses have shown that CBT generally provides significant improvement and regression in symptoms in individuals with anxiety disorder and PD [53–57]. In a meta-analysis of five randomized, placebo-controlled studies on a patient group with panic disorder/agoraphobia, CBT was found to be effective compared to placebo or psychological control [58]. This finding supports the findings of previous meta-analyses with similar results [59–61]. It has been reported that although recurrence may develop over time, the effectiveness of CBT continues, there is no significant decrease in effectiveness in 6 and 12-month follow-ups, and the recurrence rate is half that of pharmacotherapy [15, 59, 60, 62]. Although CBT gives positive results in many patients, there are cases where it may be insufficient. In a study in which the long-term effectiveness of CBT was monitored in patients with PD, it was reported that panic-related symptoms showed a fluctuating course, the treatment response was insufficient, only 48% of the patients had a significant reduction in panic, anxiety, and avoidance symptoms, and some of the patients (27%) sought different methods for panic symptoms due to inadequate treatment response [62]. The rates of compliance and continuation of the treatment also vary. In a clinical study, the mean quit rate was reported to be 19% in patients who started CBT for panic disorder/agoraphobia [60].

3. Conclusions

Panic disorder is a chronic psychiatric disorder characterized by unexpectedly recurring panic attacks. A panic attack is a period of intense fear that begins suddenly
and lasts from a few minutes to an hour. The lifetime prevalence of panic disorder is 3.7% without agoraphobia and 1.1% with agoraphobia. Panic attacks are more common than panic disorders. One-third of individuals experience panic attacks at some point in their lives.

When the panic disorder model of cognitive behavioral therapy is examined, it is seen that panic disorder begins as a catastrophizing of various bodily sensations and intellectual activities and intense anxiety. The individual determines various strategies in order to not experience this intense anxiety again. However, inaccurate strategies cause more anxiety instead of protecting the individual from anxiety. These coping strategies involve avoidance of certain places and situations where there is a threat of experiencing a panic attack and exhibiting certain safety behaviors. Coping strategies may help to alleviate anxiety for a short time, but in the long term, they cause the disorder to be sustained and become chronic.

Panic attacks begin suddenly without a reason and quickly become severe. During an attack, intense somatic symptoms are experienced and the patients interpret these symptoms with a catastrophizing way of thinking. They think that they have a heart attack, that they will lose control, and even that they will die. This situation continues in a vicious circle and causes anxiety to increase gradually. In cognitive behavioral therapy, a treatment protocol was determined based on this panic disorder model. One of the most important components of treatment is psychoeducation, that is, explaining what a panic attack is and the nature of what is experienced. Psychoeducation is aimed to explain that panic attacks are not actually dangerous, but only a natural reaction of the body to anxiety. The aim of self-monitoring is to observe one's self correctly. Strategies for coping with anxiety such as breathing techniques and progressive muscle relaxation exercises are taught. Cognitive restructuring, which is one of the important components of the CBT, is aimed to realize the faulty cognitions in the form of catastrophizing and overestimating the threat, question their validity, and produce realistic alternatives to these cognitions. Another important component of treatment is exposure. It is very important for the treatment that the individual is systematically exposed to the situations and places they avoid, and in this way making the patients realize that the feared places and situations do not really pose a threat.

**Conflict of interest**

The authors declare no conflict of interest.
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References


[28] Craske MG, ve Barlow, D. H. Panic disorder and agoraphobia. In:


[31] Taken from the website of the Turkish Psychiatric Association. Access address: https://psychiatry.org.tr/uploadFiles/2132020115258-gevsemebrosur.pdf


Cognitive Behavioral Therapy - Basic Principles and Application Areas


