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Original Article: Examining Theories of Anxiety on Body's Chemical and Defense System

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ABSTRACT

This article examines the theories of anxiety on the chemical and defense system of the body. Anxiety is actually experienced by all people. Anxiety is a diffuse, very unpleasant, and often vague feeling that is often accompanied by symptoms of autonomic system such as chest tightness, palpitations, sweating, headache, brief stomach discomfort, and restlessness characterized by inability to sit or stand. The total number of symptoms that exist during anxiety is different between people. The classification of anxiety disorders in psychology is justified by many obstacles, which are on the one hand, due to the gradual formation of the personality structure in the periods of transformation and the importance of communication issues in these periods, and on the other hand, they originate from the disagreement of different authors about the scope of anxiety disorders. Currently, due to the existence of such problems and despite the existence of different classifications, a specific classification approved by all psychologists and psychiatrists, that is, can cover the realm of anxiety disorders during the transformation period, avoid the risk of ignoring an anxiety disorder and it is not possible to investigate the risk factors and how the disorders evolve, and also to enable the correct evaluation of psychotherapy methods.

Introduction

School theory about anxiety

Most of the obtained theories of anxiety proposed for humans are based on animal studies from laboratory experiments, especially those based on neurophysiology.

A) Biological theory: As mentioned, biological theories about anxiety come from preclinical studies on animal models of anxiety, studies on patients in which the existence of biological factors was inevitable, increasing information about basic neuroscience and the effect of psychotherapeutic drugs have been achieved one pole of these thoughts takes for granted the assumption that measurable biological changes in patients suffering from anxiety disorders are the result of psychological conflicts, and the other pole assumes that biological events occur before psychological conflicts. Both situations may exist in certain individuals, and a spectrum of biological

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sensitivities may exist among individuals with symptoms of anxiety disorders. In general, the physiological and neurophysiological theories in the field of anxiety have dealt more with what parts of the central nervous system are involved in emotions, especially in fear and panic. Physiological theory has the most contribution in explaining anxiety. In contrast to Panksib (1981), who proposes the fight and flight system, Gary considers the behavioral inhibition system as the basis of anxiety. The behavioral inhibition system suppresses the behavior that will have an undesirable result. He considers the basis of anxiety to be the hippocampal captor region, which plays a mediating role between cognition and excitement [1].

He also concentrates on the Frankinia of this region to the frontal lobe and the release of central amino-aminergic from the brain stem. Gary's theory is based on his research on anti-anxiety drugs. The underlying mechanisms of anxiety are less known in the neurocognitive field. This concept that anxiety is inherent and neutral stimuli can be associated with it through learning has been obtained from various sources [2]. For example, Darwin proposed that humans have a set of natural defensive behaviors. James and Lange consider automatic changes equivalent to anxiety. He considers the function of thalamus to be important and believes that the function of thalamus simultaneously stimulates the cerebral cortex and surrounding nerves. McLean considers the limbic system to be the anatomical basis of emotions. Eysenck (1981) believes that people differ significantly in their arousal level, especially people with low cortical arousal tend to seek more stimuli, while introverts' or people' brains with high cortical arousal are high, they are looking for less stimulation. The second aspect of Eysenck's theory includes a structure called neuroticism, which includes people who have an active autonomic system that is highly active, and these people find less habituation.

Therefore, anxiety is a primary result of the interaction of individual characteristics of the arousal of the cerebral cortex and the autonomic nervous system, which is under the influence of the limbic system. People who have an anxiety disorder tend to have a high level of cortical arousal as well as severe reactions of the autonomic nervous system. One of the most comprehensive theories about anxiety expressed by Geoffrey (1982) is the two-system model of emotional motivation. In this theory, two structures are involved in regulating a large part of behaviors. The first structure is the behavioral inhibition system that reacts to new and aversive stimuli, and the second structure includes intermediate responses of the forebrain that shows a tendency towards rewarding and non-punitive stimuli, and the combination of these two systems regulates many of our behaviors. Goldberg (1982) expanded the theory of dual systems and added new concepts to it. He believed that inherited personality traits are highly dependent on monoaminergic neurotransmitter pathways, and specifically, anxiety is associated with serotonergic activity [3]. According to his belief, people with chronic anxiety have an inherent tendency to avoid and have little dependence on rewards and are not looking for new stimuli. Therefore, his attitude includes both the biological system and the cognitive system. Kandel's research (1983) showed that serotonin is a neurotransmitter and the locus coeruleus is a vital component in anxiety. One of the reasons confirming the basis of anxiety is the effect of some drugs such as benzodiazepines on reducing anxiety. There are reasons that show that benzodiazepines stimulate gamma-aminobutyric acid (GABA) pathways and cause the activation of GABA receptors in the locus coeruleus and reduce the activity of this nucleus [4].

Among these drugs is diazepam, which increases the electrical stimulation threshold of the locus coeruleus, some tricyclic antidepressants also, reducing the activity of the locus coeruleus. There is evidence that shows that hereditary factors are involved in anxiety. Clark (1995) showed that various types of anxiety disorders are common among the dependents of panic patients. The three major neurotransmitters related to anxiety based on animal studies and responses to drug treatment are: norepinephrine, serotonin, and gamma-

aminobutyric acid (GABA). The general theory related to the role of noradrenergic in anxiety disorders affected people may have an irregular noradrenergic system with occasional periods of activity. The cell trunks of the noradrenergic system are mainly located in the locus coeruleus in the anterior part of the nasal bridge and send their axons to the cerebral cortex, Lipic system, brain stem, and spinal cord. The study on humans has concluded that in patients suffering from panic disorder, beta-adrenergic agonists such as isoproterenol can provoke severe and repeated panic attacks. In constrast, clonidine, an alpha-adrenergic agonist, reduces anxiety symptoms in some experimental and therapeutic situations [5].

In 1920, Watson wrote a paper called conditioned emotional reactions, in which he described his experience with the infant little Albert, who described Watson's fear of mice and rabbits. Unlike little Hans Freud, whose symptoms appeared in the natural course of development, little Albert's problems were a direct result of the scientific experiments of two psychologists who had successfully created conditioned reactions using methods in laboratory animals. In Watson's formulation, the traditional stimulus-response model of pavlovian conditioning reflex is used in the initial emergence of phobias, that is, anxiety is caused by a naturally fearful stimulus that is applied together with a second stimulus that is neutral in nature. As a result of association, especially if two stimuli are accompanied on several consecutive occasions, the basically neutral stimulus alone acquires the ability to cause anxiety. Therefore, the neutral stimulus becomes a conditioned stimulus to produce anxiety. In the classic stimulus-response hypothesis, it is observed that the conditioned stimulus gradually loses the individual ability to create a response if it is not reinforced in time with the unconditioned stimulus. In the panic symptom, this reinforcement of the reaction to the stimulus does not take place. However, the symptom may persist without apparent external reinforcement. In the newer hypothesis of operant conditioning, a model is presented to justify this phenomenon. In this hypothesis, anxiety is considered a driver that stimulates the organism to do everything it can to relieve the painful emotion. The animal soon learns in the course of its incidental behavior that certain actions enable it to avoid the anxiety-causing stimulus.

These avoidance patterns persist for long periods of time as a result of the reinforcement they receive through their ability to relieve anxiety. This pattern can easily be adapted to phobias, because avoidance of the anxiety-provoking object or situation plays a major role. This avoidance behavior becomes a fixed symptom due to its effect in protecting the patient from panic anxiety.

The learning hypothesis has a special relationship with panic disorders and provides a simple and understandable explanation for many aspects of panic symptoms. Therefore, critics believe that this hypothesis is related to the surface mechanisms of symptoms and is less useful compared with psychoanalytic hypotheses and providing insight into some of the more complex psychological processes of panic. It used to be thought that a panic reaction could occur to any object or situation, but the opposite view, based on the observation of a limited set of phobias in clinics, is that objects are potentially frightening things for the human race, are dangerous or have been dangerous, and this readiness theory includes fears of small animals, illness or injury, storms, heights, strangers, water, and situations such as being away from a safe place and being rejected by others. Although the exact cause of phobias is not known, they are generally considered to be acquired fears learned through direct conditioning, vicarious conditioning, or transfer of information or training. Conditioning is a form of learning in which a stimulus and response to that stimulus form a new association. For example, a child is playing with a pet dog, he may unintentionally pull his tail and the dog bites him/ her. In this case, the child responds with fear and distress, or learns to avoid the dog in the future, but the phobic patient usually cannot cite a single traumatic event, such as being bitten, as the date of the disorder onset. Fear is usually formed gradually and as a result of frequent more or less frightening experiences or social learning.

Sometimes this reaction happens during times of stress or intense arousal, that is, when fear responses are easily learned. Simple phobias may develop gradually from childhood fears, and social fears generally begin in late adolescence [6].

Cognitive perspective

Over the last few decades, several theoretical models have been presented to explain the underlying mechanisms of social anxiety disorder, and some of these models emphasize cognitive processes. Cognitive models of anxiety disorder are based on the idea that cognitive factors such as ineffective beliefs and irrational thoughts play an important role in the cause and continuation of anxiety disorder. In recent years, a lot of emphasis has been placed on information processing patterns, that is, the way people perceive environmental stimuli, and it is believed that this bias in emotional information processing is the basis of anxiety disorders, and this bias in all stages of information processing, i.e. in attention, there is interpretation and memory.

One of the basic hypotheses of cognitive approach to anxiety is that anxiety is called by the expectation of a negative or harmful outcome, that is, by the perception of threat. People's perception of threat is explained by their subjective judgments about the probability of occurrence of a negative event of intensity or hatred of that event. Therefore, people with anxiety disorders estimate the probability and severity of negative events higher than normal people. Although such exaggerated judgments are likely to be associated with most levels of affective disorders, several theorists believe that subjective judgments are unique to any anxiety disorder. Therefore, overestimating the probability and severity of negative social events is specific to social anxiety disorder. In phobias, avoidance is often dramatic and in severe cases may lead to almost complete social withdrawal. Avoiding anxiety-provoking situations for this reason reduces the individual's anxiety and strengthens this disorder; therefore, in the field of treating social anxiety disorder, confrontation is the initial psychological treatment in the cognitive field, which has an effect on affected patients [7].

This disorder has been proven. Therapists of all theoretical schools have concluded that structured coping exercises are an essential part of effective treatment for this disorder. One of the other characteristics of patients suffering from social anxiety is the lack of social skills necessary to initiate and maintain social communication. Researches have shown that for a more effective treatment of social anxiety disorder, attention should also be paid to teach bold behaviors and teaching them social skills. In almost all areas where the patient's performance is inhibited due to neurotic fear, courage training is a suitable treatment method. Based on the cognitive perspective, anxiety disorders are the result of false, unrealistic and irrational thoughts and beliefs, especially exaggerated irrational beliefs about environmental risks. This view has been proposed by people such as Ellis, Beck, and Amri. In this view, the incident itself does not cause any emotional changes such as fear or anxiety, but rather it is irrational beliefs that cause anxiety or inappropriate cognitive schemas that cause a situation to be interpreted as a source of danger. The philosophy behind cognitive behavioral therapy is that our thoughts and feelings play a key and fundamental role in our behavior. From a cognitive viewpoint, it is believed that mental disorders that occur in certain situations or in connection with certain problems are the source of anxiety. Anxiety is a normal thing in some conditions and times, but if it becomes a feeling of worry or fear, it is considered a disease [8].

In this regard, the psychoanalytical approach has based its theories on motivational and emotional activity. The bio-neurological approach examines the performance quality of the above psychological components in relation to their neurophysiological correlates. Cognitive models emphasize the assumption that patients with anxiety disorders interpret social situations as more threatening than other groups. Research results showed that patients suffering from social phobia report more

negative expressions and negative evaluations of these patients are distorted at least to some extent. According to the cognitive perspective, anxiety disorders are the result of false, irrational, and unrealistic thoughts and beliefs, especially exaggerated irrational beliefs about environmental risks. From psychological perspective, an effort is made to search for the cause of anxiety disorders, including phobias, through the ways in which a person pays attention to the available information, interprets, and applies it.

In cognitive theories, it is believed that the cause of anxiety or mental stress is not the events or problems, but the interpretation of the events or events that can lead to these problems. Cognitive theories have been developed as an approach to explain and treat depression. Recently, these theories have been used in the field of anxiety, and their emphasized points and therapeutic implications are considered valid in this case. Despite the fact that different theories emphasize relatively different points, in general, it can be mentioned that anxiety is caused by a wrong or incorrect assessment of the situation. Beck's cognitive theory of anxiety and depression has been studied. This theory proposes that each traumatic state has a specific cognitive profile. In the anxiety state of this profile, it includes the time of perceived physical or mental threat in the personal domain, Beck's cognitive theory proposes the difference between the emotional states based on the specific cognitive content associated with each disorder. Beck says that anxiety-causing thoughts are caused by one or more of four types of mental meaning [9].

Ellis proposed the issue that a number of irrational beliefs are the primary cause of human suffering and unhappiness. He did not consider stimuli to be the cause of anxiety, but considered the individual's interpretation of stimuli as important in causing anxiety, and projected the result of irrational belief.

Clark and Wells (1995) present a series of cognitive processes that are thought to occur before and after social interaction and are involved in the persistence of social phobia. People with social phobia review the details of what they think might happen before entering a fearful situation. When they start to think about the situation, they become anxious and their thoughts are dominated by replays of past failures, negative mental images of themselves in those situations and predictions of poor performance and rejection. These ruminations sometimes lead to complete avoidance of the situation, but if this does not happen and the affected person enters the situation, they are likely to be in a self-focused processing routine, waiting for failure, and seem unlikely to receive signs of acceptance by others to attract his attention [10].

Leaving a social situation or running away from it does not necessarily mean the end of negative thoughts and anxiety of people suffering from social phobia. The rapid subsidence of anxiety is caused by the elimination of immediate social danger. However, the nature of social interactions is such that the person suffering from social phobia is unlikely to have received the signs of social acceptance from the people around them, and thus, he/ or she is likely to dissect and analyze their bodies after the incident. The environment is preferably reviewed. During this review, negative feelings and perception towards oneself will probably appear permanently and specifically. Because when the patient was in that situation, he/or she processed these feelings and impression’s part by part, and therefore, in the patient's retrospective memory, is completely under the influence and control and negative perception towards himself/ or herself, and this interaction is probably much more negative.

This may be true, because some people with social phobia report a feeling of shame that lasts for a while after their anxiety subsides. Another aspect of the split body of the event after its occurrence is the rereading of other cases of social failure from memory. Hence, the new interaction is added to the list of past failures, with the consequence that an interaction that may seem completely neutral to an outside observer will reinforce the patient's belief in his social inadequacy.

The nature of negative thinking in people with social phobia

The cognitive model emphasizes the assumption that people with social phobia interpret social situations as more threatening than people with non-social phobia. Clark and Stupa used the ambiguous events questionnaire prepared by Butler and Matthews (1993). Patients with social phobia and patients with other anxiety disorders and non-patient subjects completed two questionnaires. One of these questionnaires contains ambiguous social situations and ambiguous non-social situations. People suffering from social phobia were significantly more likely to choose negative expressions than two groups of non-diseased subjects and anxiety patients, but their expressions were not different from any of the two mentioned groups [11].

The second questionnaire contained mild negative social events and was used to evaluate catastrophic expressions. Patients with social phobia were more inclined to choose catastrophic interpretations of social events than other anxiety patients or non-patient subjects, which is consistent with the cognitive model. Moog, Matthews, and Weinman (1989) reported on an experiment in which social phobia sufferers, other anxiety patients, and non-patient subjects were asked to have a brief conversation with an attractive female who was actually acting out a role. The woman was told to be mysterious but friendly. After the conversation, the subjects classified their thoughts and graded a group of their positive and negative behaviors. These behaviors were further quantified by independent evaluations. The analysis of the findings related to thoughts revealed that those suffering from social phobia reported more negative self-evaluative thoughts compared with the other two groups. The assumption of the cognitive model is that the negative evaluations of people suffering from social phobia are distorted at least to some extent to investigate this hypothesis. Stupa and Clark (1997) compared the quantitative evaluations of the subjects and independent evaluators following the conversation situation with the actress [12].

Compared with evaluation, the independent evaluations, people with social phobia had estimated their performance lower, while patients with other anxiety disorders and non-patient subjects had evaluated relatively accurately. Other researchers have found that people with high social anxiety underestimate their own performance, but overestimate their level of anxiety in the eyes of others [10].

Situational safety behaviors

Wells *et al.* (1995) tested the hypothesis that safety behaviors are effective in perpetuating social phobia. They compared a confrontation session, a fearful situation, and a similar confrontation session accompanied by voluntary withdrawal of safety behaviors. Although these two methods were not different in terms of ratings of acceptability by patients, but a behavioral test performed before and after the therapeutic observation showed that confronting and abandoning safety behaviors significantly resulted in a greater reduction in anxiety and a quantitative rating of belief. It produces frightening results.

Self-directed attention and the use of internal information for self-delineation are seen as a social issue in people with social phobia. The key part of the model of Clark and Wells (1995) is the idea that people with social phobia use internal information to portray themselves indicating that others see them in the same way, and this information is relatively more important than considering the actual behavior of others. A number of studies have reported findings that are consistent with various aspects of this hypothesis.

The first group of researchers has suggested that the belief of people suffering from social phobia that the evaluation of others is negative towards them is not based on accurate information about the reactions of others in front of them. Stupa and Clark (1997) found that people with social phobia reported more negative self-evaluative thoughts compared to the control group during a conversation with an actor, but did not report more negative thoughts indicating the actor's evaluation by showing subjects a series of slides about

different emotional expressions, Winston *et al.* investigated the accuracy of identifying negative emotions. Slides showing facial expressions were shown for 60 thousandths of a second, each slide followed by an overlay. Students who scored high on the Fear of negative evaluation (FNE) scale correctly identified more negative facial expressions than those who scored low, but a modal analysis of sign exploration revealed a negative response bias in this study. The tendency has been involved. This means that students with high FNE tend to evaluate the face negatively in the absence of emotional information [13].

The second group of studies showed that people suffering from social phobia have reduced their awareness of the details of a social interaction. Clark *et al.* used a dot-completion model to compare attention to social stimuli with attention to non-social stimuli. In each laboratory experiment, the subjects were shown two simultaneous images of a face and an object, the duration of presenting each pair of images was 500 thousandths of a second (half a second), after which a letter appeared on the screen in place of the image of the face or of the object. The time to complete letter classification was used to evaluate attention bias. Students with high FNE, compared with students with low FNE, showed an attention bias to avoid faces. This finding is consistent with the researches of Brattle *et al.* (2008) and Hoyer *et al.* (2008). They found that subjects with high social anxiety had poor memory about the details of a recent social interaction. However, Clark, and Wells (1995) could not reach this result using a relatively similar method [14].

The third group of studies, including Albano *et al.*'s (1995) and Wells and Clark's (1993) studies, indicates that a part of social anxiety sufferers' estimations about the dangerousness of social situations is based on the perception of their own emotional response. Albano *et al.* (1995) provided scenarios included a hypothetical social situation and its subjects. These scenarios change in two dimensions that if there is real or safety information or does the subject feel anxious? After the subjects imagined themselves in the scenario situation, they were asked to rate the risky degree of hypothetical situation. The estimations of control group subjects about risk were only influenced by real risk information, but those with social phobia were also influenced by anxiety response information in their estimations. Munsell and Clark asked students with low and high FNE to give a speech. After the lecture, they had to fill in a survey list related to anxiety feelings and rate their anxiety level; an independent evaluator also quantitatively graded the subject's anxiety level according to the subject's behavior. As in previous researches, subjects with high FNE overestimation were significantly correlated with the intensity of anxious feelings [14].

Treatment of social anxiety

One of the major problems with an inhibiting and disturbing effect on the efficiency and dynamism of teenagers and young people, prevents the healthy formation of identity and the flourishing of their intellectual and emotional talents and powers, is social phobia or social anxiety. In addition, in the third statistical and diagnostic guide, mental illness is called social phobia because, in some research literature, anxiety and fear are sometimes used as synonyms for each other, despite their conceptual differences. This is because both of them manifest in a similar cognitive, emotional, physiological, and behavioral pattern, which includes movement tension, hyperactivity, the body's automatic device, the expectation of being safe, and listening to the alarm. Social anxiety or social phobia is a relatively common phenomenon in early youth, and research has shown that nearly one percent of people suffer from it.

Different treatment methods for social phobia in children and teenagers are the same treatments that have been done on adults and have had successful results. Behavioral approaches, which date back to 1920-1924, began with the work done by Pavlov and Watson on conditioning, and from the 1950s with the works of Skinner (1953), Eysenck (1960), and Bandura (1969), its practical use became common. The theoretical background

of treating phobias, especially social phobias, are behavioral therapies that directly derive from experimental psychological findings, especially the works of Volpi (1961-1985) about systematic desensitization. This treatment is based on the hypothesis that most abnormal behaviors are learned like normal behaviors. The result of accepting this hypothesis will be that everything that is learned can be forgotten and replaced by more adaptive reactions, and this is achieved by approaching the feared thing in a step-by-step approach and not by its avoidance.

Therefore, if the tendency to run away, withdraw, or simply avoid fearful situations is reversed, it becomes possible for the patient to learn that the situation is not actually dangerous. Thus, in the treatment, it is requested that the patient repeatedly contacts the feared objects and this contact continues until the fear begins to decrease and the vicious circle of confrontation that maintains the symptoms collapses and facilitates new learning by facing the feared objects, the patient learns how to effectively deal with them. Given that, the treatment is designed to silence or reduce anxiety and avoid by regularly confronting the patient with fearful situations. The direct result of this work is that the therapist's main problem is to enable the patient to enter situations that are unpleasant and scary in his/ or her opinion. Another type of behavioral therapy proposed in the case of social phobia is courage learning with a multi-content method, which was first treated by Salter (1949) and in his book called treatment through conditioned reflection, he tried to, based on Pavlovian terms, shy personality traits or describe the inhibitor [9].

Volpi and Lazarus (1960) interpreted courage learning in the same way as relaxation and considered the principle of effective treatment as the mutual inhibition of anxiety. In therapeutic behavior, lack of boldness is a specific skill defect or behavioral inhibition that is probably caused by incorrect social learning experiences. According to the claimed views, the main issue will be how to treat patients suffering from social phobia or succeed in reducing their anxiety using behavioral therapy techniques, especially progressive muscle relaxation, gradual desensitization, and courage training [12].

One of the common phenomena among teenagers and young people is fear and anxiety. This problem is considered normal during the growth and development of the child and it appears in a special way in each period of development. For example, in the first years of life, there is an initial reaction to stimuli. In pre-primary school, it gives way to fear of strangers, animals, and physical injuries, as well as in school and university, it leads to social and academic fears. Some of these fears and anxieties need therapeutic intervention. Morris and Kratochuil (1983) suggested that it should be considered when:

1- The fears are extreme.

2- Last for a long time.

3- Create problems in life for the parents or the affected person.

Graziano *et al.* (1979) believe that clinical fears should last for about two years or cause problems in the patient's lifestyle due to being severe. Considering the severity of fear, most therapists consider a short period of three months sufficient for intervention. One of the common fears among teenagers and young people is social phobia, which needs therapeutic intervention due to its severity, duration, and frequency. Clinical attention to the shy and socially isolated child was found following research that satisfying relationships with peers in children play a fundamental and vital role in the growth and development of social relationships in late adolescence and adulthood. People suffering from social phobia usually lose cognitive skills and inferential ethics. People who are socially isolated have a strong tendency to be depressed and show poor academic performance in school and higher education levels. Such people are usually reserved and shy who avoid social interaction and are constantly worried that they may appear stupid and have negative perceptions of their behavior. They are afraid of negative evaluation of others and are unable to express themselves. During their studies, they have few

social activities, they live in the margins and always act as obedient and compliant people, they see the environment and social interactions as threatening, they have little self-confidence, they are not satisfied with their situation and, at the same time, they cannot be free from their fears and anxieties, and also continue to avoid themselves and eventually become an isolated, passive, and withdrawn person. Covey and Raj (1983) believe that people with social phobia are actually those who, despite the desire to start and continue social interaction, due to lack of social skills or because of shyness, cannot have social interaction and are withdrawn. Hughes (1988) in the book of cognitive-behavioral therapy calls such people as "underdogs" concerning the consequences that the problem of social phobia causes in children, teenagers, and young people, timely recognition, expertise, and therapeutic intervention are helpful. In terms of phenomenology, anxiety diagnoses with a practical aspect often overlap and it is very difficult to be able to do with performed evaluations that completely separate these disorders and it is possible that affected people have two or more disorders together. Efforts to prevent and treat disorders of teenagers and young people are important. Because many anxiety disorders, if left untreated, can affect a person's social and personal adaptation throughout their life, and in severe cases, lead to fatal results. The treatments suggested for anxiety disorders in adults are cognitive treatments that have had successful results. Donald Meichenbaum (2004) pioneered cognitive-behavioral change (CBM) by inventing self-talk training. In his method with patients, Meichenbaum tried to recognize and reduce self-talks that cause incompatible emotions and help them to control themselves. In other words, reduce harmful thoughts and increase useful thoughts. Strauss (2008) proposed a multi-content program including social skills training or courage learning, desensitization in reality and imagination, and cognitive therapies. Hughes (2007) used cognitive-behavioral therapies including guidance, modeling, self-control, regular exercises, and rational-emotional methods as a self-control method to identify maladaptive cognitions leading to emotional pressures, and important components in the therapeutic interventions of people in this way is known as social anxiety. Treatments that have been proposed for social phobia and are based on behavioral approaches are based on two types of theoretical formulas:

1- Pattern of skills deficiency.

2- Pattern of response prevention.

In the skill deficit model, the individual's relative social phobia is in a set of social skills. Inappropriate responses in social situations lead to undesirable consequences and feelings of pressure and discomfort. Teaching and relearning appropriate skills allow a person to use such skills in new situations. On the other hand, based on the response prevention model, social phobia is a classical conditioning response that arises and becomes stable in response to self-expression experiences in various social situations. Volpi created the method of reducing anxiety by preventing the reciprocal response, which was based on the method of courage learning. He believed that self-expression responses cause mutual inhibition of anxiety. Marzilier and Winter (1983) believed that the treatments based on these two models have not been completely successful and have sometimes failed, but at the same time, the research conducted in this field has yielded successful results [13].

Interactive pattern

This model considers both stimulus and response aspects of psychological stress and believes that psychological stress occurs through a special relationship between the person and environment. This pattern indicates that mental pressure is the result of the function of communication between the person and the environment. Therefore, special stimuli or responses cannot be labeled as stressful or not without evaluating the individual relationship with the environment. In this model, which is a combination of both previous models, it is an active factor against mental pressure, which uses cognitive, emotional, and behavioral coping strategies through self-discipline. The interactive model described by

Cox and McKee considers the main role in the relationship between the person and environment and believes that the evaluation of the person's relationship with environment plays a decisive role in creating psychological pressure. This model, which is assumed to be a network, has five distinct stages referred to [7].

The first stage: It determines the desires or pressures of the person. In this model, there are two types of internal and external demands. Internal demands are related to a person's physical and psychological needs, and external demands represent potential sources of mental pressure and are caused by the functioning environmental factors.

The second stage: It includes the individual perception of internal and external demands or his ability to face these important needs. In fact, psychological pressure occurs when there is a mismatch between the perception of a desire and the perception of the ability to cope with that desire. Different variables such as personality, intelligence, self-efficacy, and cognitive evaluation are effective in dealing with mental pressure.

The third stage: It includes the response to psychological pressure and a method to deal with the stressful factor. The mental experience of excitement and psychological pressure is accompanied by cognitive, behavioral, and physiological changes; in this way, the person tries to reduce the desire or need.

The fourth stage: This stage is related to the real and perceived consequences of coping with psychological pressure. When a person fails to meet a desire or need, or when failure is expected to have negative consequences, psychological pressure continues.

The fifth stage: It includes feedback that may occur in all stages of this system. Appropriate feedback can increase a person's ability to cope. Inappropriate feedback may intensify mental pressure and cause more damage or, if possible, make the person aware of the change in response to seek intervention. Feedback can occur at different physiological, psychological, and social levels.

Cognitive therapy

An individual approach includes 16 sessions. Therapeutic efforts are aimed at teaching a different cognitive framework for understanding social situations, functioning, and its risks. Interventions are strongly cognitive, asking patients to examine their expectations about social situations and the cost of poor social functioning. Cognitive therapy based on mindfulness is among this therapy group, which originated from extensive research in the field of identifying cognitive factors and processes that predict the recurrence of depression, which was proposed by Segal, Williams, and Teasdell (1995). The founders of cognitive therapy found that repeatedly working with the content of thoughts and habitual avoidance tendencies gradually causes a change in individual general perspective in relation to thoughts and emotions. In other words, they found that reaching a kind of decentralized communication and developing a different perspective towards thoughts and emotions is the main factor in the effectiveness of cognitive therapy, and it is this factor that is the ability to break free from the rumination trap and the consequences of low mood cycles. The cognitive therapy is based on mindfulness offered by Kabatzin and Beck's cognitive therapy and has been developed in the form of a group therapy to work with people with a history of depression and therefore vulnerable to subsequent episodes. Although this approach is designed to prevent the recurrence of depression patients who are in a period of partial recovery, researches have shown its effectiveness in other disorders such as eating disorder, post-traumatic stress disorder, bipolar disorder, depressive mood disorder, and confirmed anxiety disorders [8].

Cognitive-behavioral group therapy

This treatment is performed by two therapists in 12 weekly sessions of 2.5 hours and for groups of 4 to 6 participants. It is believed that cognitive behavioral therapy seems to be an effective form of intervention for social anxiety and there is still a need for extensive efforts in

this area. In this regard, the most well-known model of cognitive behavioral therapy that has been presented to explain and repair this pathological phenomenon is the model of Rapi and Himberg (1997), known as the Himberg model. During the development of specific treatment models of social anxiety, we can refer to Hoffmann's model (2007) as a comprehensive and specific model of the disorder. Hoffman introduces his cognitive behavioral therapy as social self-reevaluation therapy.

Teaching social skills

In this treatment method, techniques are used to make clients aware of the connection between the focus of attention and anxiety and to teach them to pay attention to their duties in a social situation. In a part of this exercise, patients learn to change the focus of their attention and measure their anxiety level before doing the social task. Prior to perform the social task, patients are asked to focus their attention on bodily sensations, the physical environment outside, and the topic of their conversation. After performing each of these instructions, the patient is asked to indicate his level of anxiety in each situation from 0 to 10. This information helps the patient understand the relationship between the anxiety level and the focus of attention. There are further pharmacological treatments for social anxiety, which have increased significantly in recent years. The most common pharmacological treatments for social anxiety disorder include monoamine oxidase inhibitors, selective serotonin reuptake inhibitors, benzodiazepines, antidepressants, and beta blockers. So far, paroxetine is the only drug approved by the US Food and Drug Administration (FDA).

The effect of cognitive therapy on social phobia

In cognitive therapy, it is assumed that people suffering from social anxiety face a social threat, turn their focus inward, and begin to self-evaluate and examine them, which is consistent with information processing research literature. Recent studies show that when people with social anxiety focus their attention on themselves, they imagine very negative images of themselves and believe that these images are true. These negative self-images are related to social anxiety. People with social anxiety are more likely than non-anxious people to see themselves in a social situation from the perspective of an observer. When people with social anxiety were asked to focus their attention on their surroundings, they reported less anxiety and negative beliefs. In addition, people with social anxiety tend to ignore important positive cues during a social encounter and are deficient in positive inferences that characterize the cognitive processing of non-anxious people. As part of this treatment program, patients perform a specific exercise in different attention positions. These programs are not only effective in understanding the effect of focus of attention on the feeling of anxiety, but also an exercise in actively changing the focus of attention in social situations.

Changes in anxiety in this exercise help patients to understand that social anxiety is not immutable in social situations, but rather a function of objective factors. Cognitive models have a special emphasis on self-efficacy or self-perception as an important factor maintaining social anxiety disorder. Social anxiety is the result of thinking that a person is not able to influence others the way he wants. Studies have consistently found that people with social phobia feel a large discrepancy between their actual self and the self they should be perceived by others. It means that they feel that their performance is less than what others expect from them. When faced with a social threat, anxious or socially phobic individuals experience personal dissonance, characterized by underestimating their own ability in relation to standards specified by others. Interestingly, patients' estimation of other people's standards is not higher than that of the non-anxious control group. Research shows that people with social phobia are worried that others may have high standards for their performance in social situations and this concern may significantly affect their emotions and behavior. For instance, patients who receive this feedback that they performed well during a social

encounter will have more anxiety in the next encounter. Because they think that their initial success may have raised the expectations of others. Also, when people with social anxiety feel that their expected standards are unattainable, they may use the strategy of targeted failure to lower expectations to a level where they feel more comfortable. In addition, studies have shown that the negative mental image that patients with social phobia make of themselves is not based on how they imagine themselves, but based on the belief that others see them. Negative self-perception plays an essential role in the growth and persistence of social phobia. Cognitive theories claim that people with social phobia develop a number of negative faulty assumptions about themselves based on the early learning experiences reinforced over time by selectively processing information errors in social events or in the gaps between them. When faced with a social threat, people with social phobia turn their focus inward, begin to carefully self-evaluate and examine themselves, and at the same time imagine very negative images of themselves repeatedly and without introduction and feel that these images are correct. It has been suggested that negative biased self-evaluations are a common feature in people with social phobia and the social context has no effect on its creation. In support of this view, it has been found that people with social anxiety evaluate their own behavior as unfavorable regardless of the skill level or the warm and friendly treatment they receive in social interactions. In contrast, other evidence shows that in very shy people, negative self-evaluations are context-specific and are only activated by specific social cues that recall memories and experiences of social rejection and failure. Recent studies further show that change in self-perception mediates therapeutic change [9].

Video feedback has been proven to be an effective tool for correcting negative and flawed self-perceptions, especially when combined with a period of cognitive preparation prior to view the videotape. After proposing the therapeutic model, patients are educated about the impact of negative experiences on anxiety levels. Cognitive restructuring interventions identify the nature of common cognitive biases in social anxiety. Exposure to videotape feedback is then used to reinforce these changes. In these encounters, patients are provided with an opportunity to evaluate their social performance against rational social standards without prejudice. One of the most common arguments about change resulting from cognitive therapy is that changes in cognitive schemas produce therapeutic benefits. This belief was initially explored in major depression. Fua *et al.*'s (1996) studies provide compelling evidence that demonstrates the role of perceived social cost as a therapeutic mediator. The authors found that patients showed a bias in social judgment before treatment, and this bias decreased after treatment [9].

Similar results were reported by McManus, Clark, and Hackman (2000) and Hoffman (2004). Another study found that direct cognitive intervention leads to better persistence of treatment gains, and this effect appears to be mediated by changes in social cost estimates during treatment. Estimated social cost is a special manifestation of dysfunctional beliefs about the consequences of social exposure. Therefore, this maladaptive thinking should be taken into account in cognitive intervention, like other socially ineffective beliefs. Cognitive therapy makes mental image of the patient more positive and also changes the belief that inappropriate and unacceptable performance in a social situation will bring disastrous results such as loss of base, loss of value, and rejection. Changing the treatment will reduce the exaggeration of the probability and cost of frightening consequences. Exposure in the absence of negative consequences alters exaggerated estimates of harm probability in anxious patients. If a person gets used to anxiety in a social situation and attributes the anxiety reduction to the characteristics of social situation, the overestimated social cost will decrease. If mild criticisms are made of the person while playing repeated roles, being criticized by the patient will not be perceived as catastrophic. Cognitive therapy with exposure is superior to exposure alone because cognitive

interventions directly and regularly help to change dysfunctional cognitions. Clark and Wells (1995) have achieved specialized forms of cognitive therapy in anxious people based on cognitive model. In this therapy, a mixture of cognitive techniques is designed to help socially anxious people in identifying and correcting distorted and anxiety-provoking thoughts and beliefs. This treatment method can reduce the likelihood and consequences of negative social events.

Cognitive-behavioral therapy

Description of cognitive-behavioral therapy: The philosophy behind cognitive-behavioral therapy is that our thoughts and feelings play a key and fundamental role in our behavior. For example, a person who spends a lot of time thinking about plane crashes may gradually avoid air travel. The goal of cognitive behavioral therapy is to teach patients that although they cannot control all aspects of their surrounding area, they can control how they interpret and deal with the things in their environment. Cognitive behavioral therapy has become very popular among both patients and therapists in recent years. Cognitive therapy emerged based on Aaron T. Beck's research on psychological trauma with the depression treatment. Beck initially trained in psychoanalysis and then tried to prove Freud's theories about depression. Freud assumed that depression is the anger of the self-returning to itself. Beck experimented with thoughts and dreams of depression, bringing together the theme of anger instead of the theme of failure. In the cognitive school, laboratory research and clinical observations did not suggest a persistent negative bias in cognitive processing in depressed patients. Beck's early research coincided with Ellis's theorizing in the 1971s. Ellis also researched the thoughts and beliefs of patients, and both scientists believe that a person can consciously accept logic and reason, and they acknowledge that the purpose of therapeutic considerations is to change the patient's basic assumptions, which are essential to the belief system of people in processing surrounding stimuli [10].

In addition, these two scientists chose the method of discussion and dialogue with patients and avoided passive listening and believed in the activeness of the therapist in treatment session, and despite the conceptual differences and cognitive style between Ellis's rational-emotional therapy and beck's cognitive therapy, ultimately these two views therapy is the basis of many cognitive treatments of other factors in the emergence of behavior. In a number of treatment methods, emphasis is placed on direct work and changing behavior and sometimes subtle behavior, and almost no attention is paid to directly changing the client's thinking and reasoning processes., Perhaps as a reaction against insight therapy, the behavior of therapists primarily ignored the importance of cognition and considered any recourse to thinking as a return to subjectivism, so that they opposed subjectivism in the early 20th century. Cognitive processes refer to the rules and principles used in processing information about stimuli. Perceptions, thoughts, mental images, and associated memories are the final results or cognitive consequences obtained after the non-formation of stimuli through cognitive processes [2].

Aaron T. Beck, a famous American psychiatrist and one of the founders of modern cognitive therapy, emphasizes the importance of cognitive elements. Three major mechanisms are involved in cognitive therapy:

1- Selective attention.

2- Magnification.

3- Optional inference.

According to him, cognitive therapy deals with the methods with which people judge and makes decisions and the methods with which people interpret each other's performance. How we think determines to a large extent whether we will succeed and enjoy life, or even survive. If our thinking is straight and clear, we will be better equipped for those goals. If our thinking is stagnated by distorted symbolic concepts, illogical reasoning, and false transformations, we will be deaf and blind to action. The tangled coil of higher-order thinking is mostly used when we find ourselves in the

wrong and deal with our performance. Cognitive therapy is a method of psychotherapy based on the theory of emotional disorders, clinical and experimental research, as well as certain therapeutic techniques. It is an organized form of psychotherapy designed to reduce symptoms and help the patient learn more effective ways to deal with the problems that cause him distress. The characteristic of treatment with this method is that all efforts are aimed at solving the problem. In cognitive therapy, the effort is that the set of complex psychological problems and the situation that may be involved in the patient's discomfort are taken into account. The term cognitive therapy is used because therapeutic techniques are used to change the cognitive errors and biases of the patient. Among other things, it is tried to change the way the patient evaluates situations and psychological pressures, his view of himself, the world, and the future, as well as those beliefs and attitudes that apparently increase his vulnerability to emotional disorders. Cognitive therapy, unlike other types of psychotherapy, focuses more on the present and emphasizes on solving the individual's problems and is shorter-term [12].

In fact, what therapists do is almost solve current problems and issues. In addition, those seeking treatment learn specific skills that they can use in other areas of their lives. These skills include identifying distorted thoughts, correcting beliefs, different forms of building relationships with others, and changing behaviors. Despite a wide variety of cognitive therapy methods, their most important feature is cognitive reconstruction. Cognitive restructuring is a set of methods and techniques that aim to help clients change wrong patterns. Another common feature of cognitive therapy methods is their emphasis on clients' mental perceptions in relation to themselves and the world around them. Behavioral therapy is a clear method and includes experimental evaluation because all its aspects, such as the behavior that needs to be changed, treatment goals, evaluation, and treatment strategies, etc. are clearly defined. In addition, the client's progress before and after treatment can be quantitatively measured and tracked. On the other hand, behavioral therapy benefits from solutions that have been experimentally tested, that is, their effectiveness has been measured and proven by research. Cognitive-behavioral treatments are a new growth and development in psychological treatments. However, in this short period of time, it has been able to attract a lot of interest among clinical professionals.

There are three main reasons for this interest:

First, cognitive-behavioral methods, unlike other forms of behavioral therapy, deal directly with thoughts and feelings, which are of obvious importance in all mental disorders.

Second, cognitive-behavioral therapy fills the gap that many therapists feel between purely behavioral methods and dynamic psychotherapy.

Third, these new treatment methods, unlike dynamic psychotherapy, have scientific foundations and show more capability in evaluating clinical activities.

The term cognitive-behavioral therapy was initially used in the scientific literature of the mid-1970s, and the results of the first controlled trials of therapy were published at the end of this decade. In a relatively short time after that, cognitive-behavioral therapy became a leading psychotherapy in most western countries. The empirical foundations of approaches to mental problems go back to the beginning of this century. Since Beck's work on depression, cognitive therapy has been used to treat many mental illness problems, and eventually cognitive therapy and behavioral therapy were combined until cognitive-behavioral therapy emerged. It was probably in the planning process for the treatment of depressive disorders that cognitive-behavioral approach is of high significance for most therapists.

Of course, cognitive-behavioral therapy has much wider applications, and many of them are related to cases that can be treated simply and effectively using other methods. These include: anxiety and obsessive disorders, eating disorders, some sexual issues from disabilities in chronic mental illness, as well as marital and

sexual issues. Extensive research in this field has been done in the last two decades and in different ways, which will be mentioned in detail in the text of the research. In general, most efforts have been made in investigating these phenomena and answering the ambiguities of this field in the last ten years and in the field of cognitive approaches. Many researches have emphasized the effectiveness of cognitive behavioral therapy on anxiety. Albano *et al.* (1995) conducted research entitled: "Cognitive-behavioral group therapy of social phobia in adolescents". 5 teenagers with social phobia were treated in 16 sessions.

The treatment included skills training, social skills, problem-solving, courage learning, cognitive-behavioral restructuring, behavioral exposure, and homework. The measurements obtained from the self-assessment sheet taken from the patients during the treatment, in a one-year follow-up, showed a significant improvement in the field of anxiety and depression. Structured diagnostic interviews one year after treatment confirmed complete recovery in 4 patients, but one patient showed partial recovery. Hughes (1988) identified cognitive-behavioral therapies that include guidance, role modeling, peer control, regular exercises, and rational-emotional methods as a self-control method to identify maladaptive cognitions leading to emotional pressures, the important components in therapeutic interventions for patients. It is known as social anxiety.

Gist *et al.* (1983) investigated the hypothesis that people who score high on the scale of social avoidance and anxiety score low in self-confidence, need for affiliation, need for change, and need for dominance, and in need for respecting others gets a high score. 509 students showed a significant difference in the social avoidance scale and the hypothesis was confirmed. People who experience anxiety in social interactions are likely to have less self-confidence and show less need for affiliation, change, and dominance, while they have a strong need for the judgment and opinion of others. These people may respect others to gain social acceptance and compensate for their social isolation [13].

In another study conducted by Kitzman *et al.* (1990), similar results were found as people who scored high in social avoidance and anxiety scale scored low in self-confidence. People who become anxious in social interactions are likely to have less self-confidence and show a lower need for affiliation, change, and dominance. In another research, 39 male and 57 female 10th graders were divided into two groups, shy and non-shy, based on their own reports. The results indicated that the subjects who are shy in loneliness, shy in academic success and finding friends, shy about the opposite sex, and the opinion that shy reactions are noticed by others had significantly more negative self-evaluation.

Another study conducted by Powell and Enright (1988) concluded that the effects of social phobia on humans range from mild harm to severe occupational, academic, and social damage. Extreme delinquency is usually more prevalent in the social phobia subgroup.

According to Turner *et al.*'s report (1986), 85% of obsessive-compulsive patients were injured in terms of school and academic performance, and 95% of them had a significant job injury, and 69% of them had a general and comprehensive social performance injury, and half of the unmarried people were affected. Due to this disorder, they were limited in terms of social performance according to their gender.

Foa *et al.* (1989) concluded in a research that obsessive-compulsive individuals track words related to their fears before neutral words in an unfocused message.

Al-Ali *et al.* (2011) investigated the relationship between social anxiety, social skills, aggression, and stress in male and female students. The purpose of this research was to determine the difference between male and female students in terms of social anxiety, social skills, aggression, and stress and determine the correlation between social anxiety, social skills, and stress. This research is also an attempt to determine the best predictive factors in adolescent anxiety. The result of this research showed that there is a significant difference between male and female students regarding all variables except social skills.

Ahmad and Westra (2009) conducted research titled the effect of cognitive therapy on the expectation and necessity of cognitive-behavioral therapy on social anxiety. In this research, cognitive-behavioral techniques on social anxiety were presented by the therapist on 77 undergraduate students with social anxiety through a video tape. The results showed a significant increase in the efficiency of people regarding the interpretation of anxiety, confidence in behavior, and behavior control.

The researches of Fensterheim and Herbert (1973) as well as Ross and Rield (2008) also indicated the effectiveness of cognitive-behavioral therapies and metacognitive interventions in the treatment of anxiety disorders, especially social phobia [9].

The results of Turner *et al.*'s research (2008) confirm the effectiveness of gradual desensitization method in reducing anxiety and social phobia.

Emilkamp *et al.* (2008) showed that replacement of cognitive-behavioral treatments and continuation of follow-up sessions is considered as a way to prevent recurrence of this disease. Recurrence of disease symptoms under the influence of revealing factors is one of the cases that are considered as important in the treatment of social anxiety disorder.

Hoyer *et al.* (2008) conducted a random study on 512 patients with panic disorder. In this research, CBT method was used to treat social phobia and both psychological parameters and biological treatment were performed on 20 people. The result of the treatment improved and it was concluded that this treatment package is necessary for the treatment of social phobia.

In a case study, Hitarchi (2007) investigated the effectiveness of combining CBT and EMDR on a woman diagnosed with PTSD after the Tsumani incident. The results showed that the combination of these two methods of treatment is effective in reducing the frequency and intensity of disturbing thoughts and images, withdrawal and anxiety.

Mortberg, Clark *et al.* (2007) conducted a research entitled: "The effectiveness of group individual cognitive therapy against common treatments for social phobia", which group therapy included 16 group sessions and individual therapy included 16 weekly sessions and took place in 4 months. The results showed that individual cognitive therapy is earlier and more effective than cognitive group therapy and common treatments, and also cognitive group therapies are more effective than common treatments.

David, Clarke *et al.* (2006) conducted research entitled cognitive therapy against exposure and relaxation applied to social phobia. The results showed that 84% of the affected people improved in the cognitive-therapy group and 42% improved in exposure and applied relaxation, which indicates the stronger effectiveness of cognitive therapy.

In research, Guadiano and Herbert (2006) investigated self-efficacy in social situations in adolescents with generalized social anxiety. The results showed that after the end of the treatment, changes in social self-efficacy are strongly consistent with changes in social anxiety symptoms.

Anderson, Zimand *et al.* (2005) conducted research called cognitive-behavioral therapy on public speaking anxiety using exposure to a real event. This research was conducted on 10 people with DSM-IV criteria of social phobia, panic disorder with fear of open space, or agoraphobia, which included 8 individual treatment sessions. The results showed that cognitive-behavioral therapy using exposure to the real event and speaking in public places reduces public speaking anxiety [9].

Herbert *et al.* (2005) stated that enhancing social skills training increase the effectiveness of cognitive-behavioral group therapy for social anxiety disorder [4].

Slicker (2004) considers cognitive-behavioral skills useful for people with social phobia due to their weak social skills [3].

In the research of Kushden and Robert (2004), 91 students participated in a two-way self-disclosure task with a co-experimenter. The

results showed that people with severe social anxiety have more negative affect, less positive affect, and weaker social self-efficacy compared with people with milder social anxiety.

Reingold, Herbert, and Gadiano (2006) mentioned in research that skill training along with reconstruction is effective for the treatment of social anxiety disorder [6].

Kahn (2003) reported the effectiveness of a multi-content cognitive-behavioral program in reducing anxiety and social phobia and increasing the subjects' social skills, self-esteem, and relationships with their peers.

In the research of Dennis (2003), it was concluded that low self-efficacy is related to symptoms of anxiety disorders, depression disorders, and psychosomatic symptoms.

Ballard (2003) reported the effectiveness of the courage learning method and social skills training on a group of students suffering from anxiety and social phobia.

Edelman (1995) observed in research that the socially anxious patient believes that he will not be able to deal effectively with uncomfortable social situations and this can cause problems in social situations. In socially anxious patients, it seems that the probability of negative evaluation in social situations is high, and it was also found that, in general, these patients predict a high probability of negative events.

Chambliss and Glissom (2003) research showed that cognitive-behavioral treatments are more effective than drug and placebo treatments in the treatment of patients with social phobia.

During a research, Deborah (2000) conducted behavioral therapy for children suffering from social anxiety with a behavioral therapy program design to improve social skills and reduce social anxiety. The results confirmed that social phobia significantly decreased and social skills increased and was associated with decreasing pathology and increasing social actions.

Van Dam Bagen and Karimit (2000) investigated social skills training and cognitive-behavioral therapy in people with social anxiety. The results showed that both social skills training and cognitive-behavioral therapy are effective in treating people with social anxiety. Both methods reduce social anxiety and psychological damage and increase social and self-control skills. Likewise, patients participating in the experimental group showed a greater reduction in social anxiety and an increase in social skills than the control group.

In research, Wehr and Kaufman (1981) tested courage training on a group of anxious teenagers and the results showed that their self-esteem increased and their aggression and anxiety decreased.

Witser (2006) showed that a combination of drug therapy and cognitive behavioral therapy can facilitate the treatment of depression.

Deshiri (2013) conducted research with the aim of investigating the effectiveness of cognitive-behavioral therapy on anxiety and worry in people with generalized anxiety disorder. Research method using a pre-test, post-test experimental design with a control group with follow-up, 18 students referred to the counseling centers of Tehran universities who were diagnosed with generalized anxiety disorder according to the criteria of the statistical diagnostic guide of the fourth edition, were randomly selected and in two experimental and control groups were replaced. Subjects of two groups responded to the Pennsylvania state anxiety questionnaire and trait anxiety scale. The subjects of experimental group underwent individual treatment for 16 sessions. At the end of the treatment and also one month after the treatment, the subjects of the two groups answered the anxiety and worry questionnaire again. The results of the research showed that cognitive-behavioral therapy has significantly reduced worry and trait anxiety of subjects with generalized anxiety disorder in the post-test and follow-up phase. In addition, the research results show that cognitive-behavioral therapy is effective in reducing the symptoms of generalized anxiety disorder.

Davodi *et al.* (2012) conducted research with the aim of investigating the relationship between two new constructs of fear of positive

and negative evaluation and social anxiety with the control group of fear of negative evaluation. The research samples are 176 (88 girls and 88 boys) undergraduate students of Shahid Chamran University, who were selected by multi-stage random sampling method and completed social anxiety and fear of positive evaluation questionnaires. The results indicate a correlation between fear of positive evaluation with social anxiety and its social self-concept component, but its correlation with fear of negative evaluation and anxiety symptoms component is not significant. The results of three hierarchical regressions showed that after controlling for fear of negative evaluation, fear of positive evaluation explains a significant part of the variance of social anxiety and social self-concept, but its role in predicting anxiety symptoms is not significant. The distinction between both constructs in the analysis of exploratory factors was further revealed by loading the items of fear of positive evaluation and fear of negative evaluation on two separate factors. It seems that the fear of positive evaluation plays an independent role in social anxiety than the fear of negative evaluation and these two constructs are probably related to different types of anxiety symptoms.

Rahmanian *et al.* (2013) investigated the effectiveness of group cognitive-behavioral therapy on social anxiety among female students. The research method was experimental. After the social anxiety test, a clinical interview was conducted based on DSM-IV-TR and 18 female students (9 for each group) were selected and randomly divided into two experimental groups of cognitive-behavioral intervention and a control group without treatment. After completing the course of 12 sessions of two hours of treatment in the experimental group, the social anxiety test was again administered as a post-test in both groups. The results of t-test showed that with 99% confidence there was a significant difference between social anxiety in the experimental group compared to the control group and with 95% confidence the participants were able to maintain the results of the treatment up to one month of follow-up. In general, group cognitive-behavioral therapy is effective on the social anxiety of fifth grade elementary school girls.

Jalali *et al.* (2013) conducted a study to determine the effect of group play therapy in a cognitive-behavioral way on the social fear of children aged 5 to 11 years old. In this quasi-experimental research, 30 children were randomly selected as samples from children referred to pediatric psychiatric clinics in Isfahan City, and then they were placed in two experimental and control groups by random assignment method. The experimental group underwent cognitive-behavioral group play therapy in 6 weekly sessions, and the control group did not receive any intervention. Children's symptoms questionnaire (CSI-4) parent form was used to diagnose these children. In addition, the subject received the diagnosis of a pediatric psychiatrist about the mentioned disorder. Children's Symptom Questionnaire (CSI-4) was administered under the social fear scale, parent form, in three stages: pre-test, post-test, and follow-up for both groups of subjects. The data was analyzed by analysis of covariance test. The results showed that play therapy reduces social fear in the post-test stage, and in the follow-up stage, it also reduced social fear in the experimental group. In general, in this research, the social fear of the experimental group was significantly lower than the control group, and this issue is similar to the research conducted in Iran and abroad. Cognitive-behavioral group play therapy is a suitable method for treating children's social fear.

Ghanbari Hashemabadi (۲۰۱۱) in research investigated the effectiveness of Eye Movement Desensitization and Reprocessing (EMDR) on social anxiety and symptoms of fear, avoidance, physiological arousal, and fear of negative evaluation. In this research, 24 patients were selected from the referral center and clinical psychology clinic of Ferdowsi University of Mashhad, who were diagnosed with social anxiety disorder based on diagnostic criteria (DSM-IV-TR), and were tested in two groups of 12 people and control (5 women and 7 men in each group) took place. Both groups were initially evaluated with social phobia

questionnaires and fear of negative evaluation scale, and then the experimental group participated in 5 90-minute sessions of EMDR therapy. At the end, two groups completed the questionnaires again. The descriptive statistics and covariance analysis methods were used for data analysis. The results showed that there is a significant difference between the mean of social anxiety, avoidance, fear, and physiological arousal before and after the intervention in the experimental group, but there was no significant difference between the mean of fear of negative evaluation before and after the intervention. Likewise, after removing the effect of age and social anxiety, avoidance, fear, physiological arousal, and fear of negative evaluation before the intervention, it was observed that there is a significant difference between the two groups in social anxiety, avoidance and fear, but between physiological arousal and fear of no difference was observed in the evaluation of the two groups. In general, the treatment method (EMDR) is effective in reducing social anxiety and avoidance its relevant fear.

Sebaknejad *et al.* (2009) investigated the relationship between post-event processing and cognitive avoidance with social anxiety in college students. The statistical population of this research includes students who were studying in the first half of the academic year 2008-2008. 400 students (221 girls and 179 boys) were selected using cluster random sampling method and answered the post-event processing questionnaire, cognitive avoidance questionnaire, and fear response scale. Data were analyzed using stepwise regression analysis and SPSS software. The results indicated that there is a significant correlation between post-event processing and social anxiety in all students. Furthermore, there is a high correlation between thought suppression, thought substitution and transformation of ideas into thoughts and social anxiety in all students, but there was no significant correlation between distraction and avoidance of threatening stimuli and social anxiety. The variables of post-event processing and thought substitution are considered the best predictors of social anxiety, so that 19% of the variance of social anxiety can be explained by these variables. In general, the results show that people with social anxiety perform cognitive processing in relation to environmental events, and this post-event processing leads them to avoid social environment more and predicts the continuation of social anxiety. Increasing awareness and using cognitive therapy helps to treat social anxiety and improve their social performance.

Meliani, Shoairi *et al.* (2008) investigated the effectiveness of group cognitive-behavioral therapy based on the Heimberg model on social anxiety disorder in girls and declared it to be generally effective.

Narimani *et al.* (2008) investigated the effect of EMDR and cognitive-behavioral therapy on stress disorder. In this case control study, 51 combatants with PTSD hospitalized in Ardabil Isar Hospital or living in Ardabil City were selected by simple random sampling method and randomly divided into three groups. The research method was an extended experiment and the research design was a multi-group pre-test-post-test type. The instruments used included the disturbing memories test, the mental agitation scale, the positive cognitions scale, and the hospital anxiety and depression scale. The results showed that EMDR treatment methods and cognitive-behavioral therapy caused a significant decrease in the variables of disturbing memories, anxiety, depression and mental agitation, and the level of trust in positive cognition increased significantly. The EMDR treatment method was more effective in reducing the PTSD symptoms of Iranian soldiers compared to cognitive-behavioral therapy. However, both methods were effective in reducing the symptoms of this disorder. In general, considering the therapeutic effect of EMDR and cognitive-behavioral therapy in the PTSD treatment, it is suggested to use the above treatment methods in medical centers to prevent and reduce the symptoms of post-traumatic stress disorder in Iranian soldiers.

Ahadi *et al.* (2008) in research explained the symptoms of depression in terms of behavioral avoidance in people with predominant symptoms of social anxiety. Among the students

who were identified with the dominant symptoms of social phobia based on the results of social phobia checklist, 123 students were selected by random sampling. They were then asked to answer the Beck Depression Inventory, the Social Anxiety Inventory, and the Leibovitz Social Anxiety Scale. In this research, Pearson's correlation coefficient and regression analysis were used for the statistical analysis of the data. The results of the research showed that there is a significant positive relationship between behavioral avoidance and depressive symptoms. Moreover, based on the findings of this research, behavioral avoidance can predict changes related to depression symptoms. In general, the results indicated that behavioral avoidance plays an important role in explaining the depression symptoms in people with predominant symptoms of social phobia. This finding can be considered as an important achievement for the treatment of social phobia.

In research, Dadashzadeh *et al.* (2008) compared the effectiveness of group cognitive-behavioral therapy and exposure therapy in reducing the symptoms severity of social anxiety disorder and investigated the effect of these two treatment methods in reducing the level of general anxiety and depression associated with this disorder. The results showed that group cognitive-behavioral therapy is not significantly different from exposure therapy in terms of effectiveness in reducing the severity of social anxiety disorder. Also, the results showed that group cognitive-behavioral therapy and exposure therapy both lead to a significant reduction of general anxiety in social anxiety disorder compared with the waiting list control group. It was found that these two treatment methods reduce the depression level of people with social anxiety disorder compared with the waiting list control group, but there is no significant difference in comparison with each other. Group cognitive-behavioral therapy and exposure therapy have no significant difference in terms of overall effectiveness in social anxiety disorder, and as a result of these two treatments, the anxiety and depression levels of people with social anxiety disorder are reduced.

Ahmadi *et al.* (2006) investigated the recall of memories in depressed, manic patients, and normal people based on mood-dependent recall theories, mood-coordinated recall and association network theory. According to the previous findings, it was predicted that depressed patients would recall more negative memories than manic patients and that manic patients would recall more positive memories than depressed patients. In this context, five hypotheses were proposed:

- Depressed patients remember negative memories more than positive memories.
- Manic patients recall more positive memories than negative memories.
- The amount of recall of positive and negative memories is the same in normal people.
- The amount of recalling negative memories in the depressed group is higher than in the manic and normal groups.
- The amount of recollection of positive memories in the manic group is higher than that of the depressed and normal groups.

To test the above hypotheses, three groups of 10 people (10 depressed, 10 manic, and 10 normal) were selected. After recording the memories recalled by these three groups and their analysis, the results showed that depressed patients recall more negative memories than positive memories, and manic patients recall more positive memories than negative memories, and the amount of recalling positive and negative memories in normal people is the same. Also, in terms of recalling negative memories, there was no difference between the three groups (depressed, manic, and normal), but in terms of recalling positive memories, the depressed group showed a significant difference with the two groups, manic and normal.

Khodayari Fard *et al.* (2005) showed in research that family education is effective in treating social phobia in addition to using cognitive-behavioral methods. Accordingly, the

aim of the research was to investigate the effectiveness of family therapy combined with cognitive-behavioral methods in the treatment of social phobia. Their research method was case study. Two 18- and 20-year-old subjects who were diagnosed with social phobia using clinical interview, DSM-IV-TR diagnostic criteria, and diagnostic tests participated in this research. The results of this research show the role of family in creating, maintaining and, as a result, treating social phobia. In addition, the results show the effectiveness of family therapy with an emphasis on the cognitive-behavioral approach.

In his research, Masoudnia (2007) attempted to test the mentioned views by examining the performance of patients with major depression and general anxiety in two different cognitive computer tasks, i.e. judgment about the abundance of emotional and neutral materials and explicit memory. For this purpose, 16 patients with major depression and 16 patients with generalized anxiety were selected and matched with 17 normal subjects in the variables of age, gender, and education. The results of the research data showed that although both groups of clinical patients show mood-congruent bias in the task of judging the frequency of emotional words compared to the normal control group, only depressed patients show this bias in recalling mood-congruent words. Likewise, the findings of this research indicate that the same processing principles do not govern these two groups of patients, and those suffering from anxiety and depression do not have the same biases in all levels of information processing as stated by previous views.

Katoozian (۱۹۹۸) conducted a study entitled: "The effective investigation of problem-solving skills training in reducing students' depression" and concluded that problem-solving skills training can be a beneficial intervention to moderate depression and use coping methods.

Jamshidi (۲۰۱۲) in a research called the effectiveness of cognitive-behavioral therapy in reducing symptoms of depression and unhealthy attitudes in adolescents with depression using two Beck depression questionnaires and the scale of unhealthy attitudes and presenting 8 experimental intervention sessions with a test report and three stages of the test (pre-test, post-test, and follow-up) showed that cognitive behavioral therapy was effective to decline unhealthy attitudes of teenagers and reduced the symptoms of depression in them [13].

Chelipanlou (2009) studied the effectiveness of problem-solving therapy in reducing the severity of depression among 64 students and given that the mean depression scores had a significant change in intervention group, but the change was not significant in the control group. Thus, it was concluded that problem-solving therapy is an effective way to reduce the depression severity.

Conclusion

Social phobia is a type of anxiety characterized by intense fear and anxiety in social situations and disrupts at least part of a person's daily activities. Social anxiety is a very debilitating disorder that can disrupt many aspects of a person's life. In severe cases, social anxiety can reduce a person's quality of life to the lowest level. More importantly, the most important issue taken from the studies of social anxiety is the significant importance of early diagnosis and treatment, because with the passage of time, the cognitive, psychological, and physical aspects of the disorder will be strengthened and it will be much more difficult to overcome it. This can cause a decrease in academic activity and an increase in anxiety in teenagers. On the other hand, cognitive behavioral therapy has been used to treat a wide range of disorders, including anxiety, phobias, depression, addiction, and a variety of maladaptive behaviors. Cognitive behavioral therapy is one of the treatment methods that have received the most researches because this treatment method focuses on a specific goal and its results can be evaluated relatively easily. One of the most significant benefits of CBT is that it helps patients develop adaptive skills that can be useful both now and in the future. Therefore, this treatment can be used to treat anxiety disorders and treat problems that are

rooted in faulty behaviors and cognitions. In general, it can be mentioned that according to the results of previous studies, cognitive behavioral therapy can be used to improve students' academic performance and reduce their anxiety.

Reference

[1]. A. Tedin, Evidence in Criminal Procedure, Mezan Publishing House, Tehran, **2018**. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[2]. A group of authors, evidence to prove a criminal case, published by Razavi University of Islamic Sciences, **2006**. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[3]. A. Hojjati Kermani, The course of judging in different periods of history, Meshal Publications, Tehran, **2014**. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[4]. H.A. Hosseini Nejad, Proofs of Claim, Tehran, Danesh Negar Publishing House, **2010**. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[5]. A. Johnson, *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, **2023**, *2*, 1-9. **[Crossref], [Google Scholar], [Publisher]**
[6]. S.Z. Nazardani, S.H. Nourizadeh Dehkordi, A. Ghorbani, *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, **2023**, *2*, 10-16. **[Crossref], [Google Scholar], [Publisher]**
[7]. S. Musaei, *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, **2022**, *2*, 17-23. **[crossref], [Google Scholar], [Publisher]**
[8]. R.Z. Fayouzi, International Criminal Law, Tehran University Publications, Ch. 1, **2016**. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[9]. N. Katoozian, Proof and Proof, Mizan Publishing House, 1st Vol, Tehran, **2015**. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[10]. R. Noorbaha, The Field of General Criminal Law, Dadafrin Publishing House, Tehran, 2018. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[11]. A.S. Vakil, P. Askari, Constitution in the current legal order; Tehran, Publications of Majd Scientific and Cultural Assembly, 2017. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[12]. P. Porzand, The depth of construction of criminal evidence, *Legal and Judicial Journal of Justice*, 2019. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[13]. A. Tedin, The scope of reason in the criminal proceedings of Iran and France, *Judicial Law Journal*, **2018**, No. 67. [In Persian] **[crossref], [Google Scholar], [Publisher]**
[14]. A. Tadin, Z. Baghrinejad, Guaranteeing a fair trial in the light of the principle of legitimacy of obtaining evidence. Beheshti University Press, 2011. [In Persian] **[crossref], [Google Scholar], [Publisher]**