

Designing a behavioral cognitive therapy protocol for patients with chronic organic diseases (cancer as a model)

- Soumia ALIOUA *,
Setif 2 University (Algeria),
s.alioua@univ-setif2.dz

Received date 5/7/2022

Acceptance date 10/9/2022

Abstract:

Cognitive- behavioral therapy is a method of treatment that includes a set of therapeutic techniques that aim to bring about a positive change in the cognitive and behavioral aspect of the individual. It is considered one of the effective psychological methods in treating mental disorders that come with chronic organic diseases (cancer as a model).

This article came to explain the most important steps that can be adopted in preparing a cognitive-behavioral therapeutic protocol plan for this category of patients, which will benefit from it in managing pain, reducing anxiety, depression, and improving mood.

Keywords: Treatment protocol; Cognitive behavioral therapy; Cancer.

* Correspondent author

1. Introduction

Despite the tremendous medical progress in the field of cancer treatment, this disease is still a major source of stress and anxiety in the family, because cancer is associated with a high mortality rate, and because the process of providing care and caring for a family member with cancer includes a wide variety of tasks required to meet many of the needs of this patient.

A good assessment and accurate understanding of the needs of cancer care and care is an important step in preparing and providing high quality health care programs and in achieving high levels of satisfaction for cancer patients and their family members who are their caregivers.

Studies and research began in the late seventies to focus on psychological counseling programs and social support services to address the psychological and social aspects related to cancer, which led to reasonable progress in describing the difficulties faced by patients and their families, and examining their adjustment processes (Brahmia, 2018, p. 47).

Cognitive- behavioral therapy is one of the latest therapeutic interventions that researchers have used to prove its efficacy, Behavioral interventions focus on relieving, for example, chronic pain, combating stress, increasing appetite, and reducing the severity of the side effects of chemotherapy and radiation. In one of the studies in which cognitive-behavioral interventions were used to manage stress in a group of women with newly diagnosed breast cancer, it was found that these interventions succeeded in reducing the increase in depression, and doubled the women's ability to discover positive aspects in their experience, and these interventions were able to reduce levels of depression and cortisol, which results in positive healing effects (Taylor, 2008, p. 671).

Recently, specialists recommended the use of exercise as one of the general methods of intervention in improving the quality of life after cancer, and when reviewing 24 experimental studies, it was found that physical exercise has a positive impact on the quality of life of patients, including physical performance and emotional state.

Pain, in turn, is a problem, rather a dilemma for patients and doctors alike, given its prevalence in cancerous diseases, and the anxiety and depression it brings to patients, it contributes to doubling the severity of anxiety and depression, and represents a negative and routine aspect in the lives of patients, although pain relievers play a key role In the treatment of cancer pain, however, behavioral methods have become one of the modern therapeutic strategies, such as relaxation and hypnotherapy, and methods of cognitive re-evaluation and visual imagery, which have well proven their effectiveness in treating cancer-related pain.

In addition to behavioral interventions, cognitive distraction methods, such as video games and others, have proven extremely successful in reducing children's reluctance to undergo chemotherapy, and have shown an effective ability to reduce their nausea and anxiety, and the positive results of cognitive distraction are not limited to young people only, but It goes beyond them to include adults as well. As for the feedback, its effects in dealing with chemotherapy were limited.

The relaxation techniques and the guided chiropractic have had an important effect in controlling the side effects of chemotherapy, even in cases where they were used briefly to prepare patients for this treatment (Taylor, 2008, p. 671).

These therapeutic methods (cognitive-behavioral treatment protocol techniques) require a set of steps to implement, and this is only through good treatment planning, as it occupied a greater position after the emergence of directed health care systems in the eighties, as these systems require the clinical therapist to move from evaluating the problem to explaining it Then to implement the treatment plan. Most care-oriented organizations aim to expedite the implementation of treatment by motivating the patient and the therapist to focus on identifying and modifying the behavior problem as soon as possible, and it is required in the treatment plans to address problems and interventions in detail, taking into account the goals and needs specific to each patient, at the same time, in order to use indicators for monitoring the improvement of the condition (Jungsmas & Peterson, 1997, p. 7).

This research paper came in order to explain how to prepare a cognitive-behavioral therapeutic protocol plan for the benefit of people with organic diseases (cancer as a model), in order to guide researchers in their theoretical studies and therapists in their professional practices by addressing the following elements:

2. Definition of Cognitive-behavioral therapy (CBT)

Both “GLASS and SHEA” see that cognitive-behavioral therapy is one of the modern therapeutic trends that are mainly concerned with the cognitive approach to mental disorders. This method of treatment aims to convince the patient that his irrational beliefs, expectations and negative thoughts, and his subjective statements, are what cause reactions indicating his bad condition, The aim is to modify the patient's perception, to replace it with more appropriate ways of thinking, in order to bring about cognitive, behavioral, and emotional changes in the patient (El-Ghamidi, 2010, p. 16).

As for “Blazzolo, 2005”, he believes that cognitive- behavioral therapy, as its name indicates, is a treatment that works to change the behavior that is maladaptive with the daily life of the person, as it works on the ideas, that is, the knowledge associated with the maladaptive behavior. So this treatment is concerned with changing the inappropriate behavior with the aim of developing it as quickly as possible, and this type of treatment is concerned with the mechanisms of information processing, which are related to the conscious and unconscious thinking context that regulates the model of perception towards the world.

Also known as a cognitive-behavioral intervention for cancer patients, it aims to reduce uncertainty, feelings of inadequacy, confusion, helplessness, and loss of control. This is done by providing information about and coping with the disease, as well as available resources for patients. This treatment usually includes training in relaxation and coping skills, and cognitive restructuring. Its protocols focus on recognizing and changing maladaptive thoughts and behaviors to relieve distress and promote well-being (Brahmia, 2018, p. 77).

3. The basic assumptions of Cognitive-behavioral therapy (CBT)

Cognitive- behavioral therapy is based on a set of perceptions and assumptions, which were developed by "Albert Ellis", and we summarize them as follows (El-Assy, 2014, p. 29):

- An individual's thoughts, mental images, and perceptions of events are the main indicator of behavior. Focusing on them is an effective way to change behavior.
- The individual is an active participant in his learning, and he is not a passive member, a receiver, or a negative record of the effects of the environment.

- The cognitive environment used to deal with maladaptive behaviors can be observed and measured by objective methods and must be clearly demonstrated during the treatment of the behavior.

4. Principles of Cognitive-behavioral therapy (CBT)

There is a set of controls that represent the principles of the cognitive-behavioral therapeutic approach, which are (Belhousini, 2011, p. 86):

- Knowledge and behavior are related to each other.
 - Learning for most of humanity is through the cognitive aspect.
 - Trends and cognitive contributions are important axes for understanding the individual, as well as his behavior and prediction of the latter.
 - Knowledge and behavior for the emergence of successful therapeutic techniques (El-Azzami, 2018, p. 27).
 - Focus on the individual's understanding of the part to be modified.
 - Both the specialist and the client work collaboratively to assess problems and develop solutions.
 - Providing an integrated experience for the individual in all cognitive, emotional and behavioral aspects.

5. Objectives of the cognitive-behavioral therapeutic protocol

The objectives of the therapeutic protocol can be defined as shown below:

- An attempt to prove the effectiveness of cognitive-behavioral therapy, with the help of its various techniques, in reducing anxiety disorder, depression, and chronic pain in cancer patients.
 - Helping patients to notice the relationship between thoughts and feelings.
 - Helping patients to self-monitor negative thoughts and fantasies and bring them out into the thinking space.
 - Helping patients replace false beliefs and negative perceptions with positive ones.
 - Training patients in relaxation technique.
 - Helping patients how to detect automatic thoughts.
 - Assisting and training patients to do all of the above as homework in a special booklet throughout the treatment sessions.

6. Techniques adopted in preparing the cognitive- behavioral therapeutic protocol plan

The most important techniques can be listed as follows (Mustapha, 2009, p. 127):

a - Cognitive methods: such as methods of refuting and refuting negative thoughts, monitoring and discussing automatic negative thoughts.

b- Behavioral techniques: such as self-monitoring techniques for pleasant and unpleasant activities, activity plans and homework.

c- Cognitive-behavioral methods: such as monitoring automatic negative thoughts, discussing negative automatic thoughts, and behavioral experiments.

d- Preventive methods: including identifying assumptions, confronting assumptions, preparing and planning for the future.

These techniques can be detailed as follows:

- The technique of identifying automatic thoughts.
- The technique of self-monitoring.
- Imagination technique.

- The hint technique.
- Homework technique.
- Socratic questioning technique.
- The distraction technique.
- The technique of identifying the wrong methods of thinking.
- Role-playing technique.
- Modeling technique.
- Technical training in solving problems.
- Relaxation training technique.

7. Steps to Creating a Behavioral Therapy Protocol Plan

The plan (or the method of preparing a treatment protocol) consists of integrated steps with sequential logic, the basis of any effective treatment plan is the data collected by the therapist or members of the multidisciplinary treatment team about the case, as these data an essential factor in understanding the patient, and the sources of his struggles alike. The most important of these steps in preparing a treatment protocol are:

The first step: choosing the problem: the patient usually encounters several problems during the evaluation, but the clinical therapist tries to discover the most important of them to focus the treatment on them. Usually a major problem and minor problems appear, and the clinician may put some problems aside for lack of urgency and lack of need for treatment at that stage, because the effective plan is only able to address a few selected problems to avoid the dispersal of treatment, and with the increased clarity of the selected problems in the mind of the therapist or team In charge of treatment, the patient's opinion about the priority of problems should be taken from his point of view, because his motivation and cooperation in treatment depends to some extent on the extent to which his most important needs are addressed (Jungsma & Peterson, 1997, p. 10).

The second step: Defining the problem: Each patient has his own way of presenting the reflection of his problem on his life and behavior, so each selected problem needs a detailed definition of the way it expresses and interacts with the patient, and the pattern of symptoms, diagnostic criteria, and code numbers such as those we encounter in diagnostic-statistical manual or the international classification of diseases.

The third step: developing goals: The next step in the treatment plan is to define broad goals to solve specific problems, and here we do not need a measurable formulation, but we need a general description of the long-term goals, and clarification of the expected positive outcome from the treatment mechanisms (Jungsma & Peterson, 1997, p. 11).

The fourth step: Interim goals: In contrast to distant goals, in this case we use measurable behavioral formulas, as it should be clarified whether the patient has been able to achieve them, so subjective and ambiguous goals are excluded. Review boards (such as the Joint Commission) and health management and targeted care organizations insist that the outcome of psychotherapy is measurable.

When designing an interim goal, consideration must be given to forming a step towards achieving the comprehensive therapeutic goal, and we can liken the interim goals to a series of steps whose completion will lead to reaching the long-term goal. Each problem should have two interim goals, although the therapist can set any number of them according to the requirements of achieving the longer goal, and the date of achieving each interim goal must be set, with new interim goals added to the plan as the treatment progresses, and the patient

can be considered to have succeeded in solving his problem If all the basic interim goals are achieved.

The fifth step: Choosing the Intervention: Interventions are the actions the therapist takes to help the patient achieve the interim goals. Each intervention should have at least one interim goal, and if the patient does not achieve the goal after using the first intervention, other new interventions are added to the plan.

The interventions are selected according to the needs of the patient and the capabilities of the therapist, and the models that we will present later include CBT interventions (Jungsmas & Peterson, 1997, p. 12).

Sixth step: Determine the diagnosis: Determining the appropriate diagnosis depends on the complete clinical evaluation of the patient's condition, and the therapist must compare the behavioral, cognitive, emotional, or relationship symptoms that appear on the patient with the Diagnostic Manual of Psychiatric Diseases.

The therapist's good knowledge of the diagnostic manual and his full comprehension of the data resulting from the evaluation of the case contribute to arriving at a consistent and correct diagnosis, and an accurate assessment of behavioral indicators, in turn, contributes to planning more effective treatment (Jungsmas & Peterson, 1997, p. 13).

8. Models of how to prepare a treatment protocol plan

In practice, cognitive-behavioral therapy is applied through several sessions ranging from (10-20) sessions, either individual or group, and includes several stages, and the duration of the therapeutic session is between 40-60 minutes, while maintaining the place of its conduct. We will try to present models of a plan for preparing a treatment protocol for anxiety, depression, and pain management for cancer patients, based on the book (The Psychotherapy Plan of "Arthur Jungsmas and Mark Peterson" 1997), and based on theoretical aspects and designed programs, by clarifying the following points: Defining the problem, Interim goals and therapeutic interventions, Diagnosis.

8.1 Cognitive-behavioral therapy protocol template for anxiety:

Behavioral definitions

Excessive anxiety and preoccupation with multiple things that have no basis in reality, with the recurrence of that worry daily.

Symptoms of severe muscle tension, such as the inability to settle in the same place, feeling tired, tremors or muscle tension in the limbs.

Symptoms of increased nervous system activity: heart palpitations, dry throat, difficulty swallowing, nausea, diarrhea.

Signs of hyper-vigilance: a persistent feeling of excitement, difficulty concentrating, difficulty initiating or maintaining sleep, symptoms of general nervous agitation.

Long-term goals

- Reducing the level and severity of anxiety and the seizures recurrence in general, in a way that does not disturb daily performance.
- Stabilization of the level of anxiety, while increasing the ability to do daily functions.
- Resolve the underlying conflict causing anxiety.

Interim goals:

- Develop and develop behavioral and cognitive skills that relieve or eliminate irrational anxiety.
- Determining the main struggles of the patient on the part of the therapist.

- Develop the patient's understanding of the beliefs and messages that generate worries and anxiety.
- A comprehensive medical calendar in preparation for prescribing medication.
- Use the medicine as prescribed, and report the side effects to the specialist.
- Reducing the level of anxiety by developing coping mechanisms.
- Increase the patient's contribution to daily social and occupational activities.
- Orally expressing a reason for the illogicality of his concerns.
- Develop relaxation and recreational activities to reduce anxiety.
- Implement short-cut solutions and strategic interventions, or the system the therapist has come up with to completely reduce anxiety.

Therapeutic interventions:

- Exploring the wrong cognitive formulas that generate anxiety responses, and training the patient on consistent thinking techniques.
- Refer the patient to the doctor to take his opinion on the case.
- Follow up on the patient's commitment to taking medications, follow up on their effectiveness, and contact the doctor on a regular basis.
- Strengthening the patient's insight into the emotional problems of his past and his current anxiety.
- Training in relaxation technique (muscular first, then visualization and meditation) to relieve anxiety.
- Use the feedback technique to facilitate the acquisition of relaxation skills.
- Helping the patient to develop means of coping with anxiety, such as increasing his social relationships, finding work, and sports activity.
- Helping the patient develop his awareness of the irrationality of his fear.
- Helping the patient develop monitoring and stopping automatic and irrational thoughts, which increases his self-confidence when facing his irrational fears.
- Ask the patient to prepare a list of past and present struggles, through the homework technician.
- Helping the patient to identify the unresolved conflicts in his life, and helping him to work on solving them.
- Helping the patient develop self-talk as a way to deal with his anxiety.

Suggested diagnoses:

- Generalized anxiety disorder.
- An anxiety disorder that has not been classified.
- Adjustment disorder with anxiety.

8.2 Cognitive-behavioral therapy protocol template for depression

Behavioral definitions:

- Loss of appetite for food.
- Depressive conscience.
- Decreased interest in and ability to enjoy activities.
- Psychomotor slowness.
- Insomnia or excessive sleep.
- Low activity.

- Poor focus and hesitation.
- Social withdrawal.
- Suicidal thoughts or threatening suicide.
- Feelings of hopelessness and insignificance, or feelings of unjustified guilt.
- Low self-esteem.
- Unresolved mourning problems.
- Hallucinations or delusions related to emotional disturbance.
- Chronic or recurring depression in the past, in which the patient had to use antidepressants, or hospitalization for treatment, or treatment in an external clinic, or electroconvulsive therapy.

Far goals

- Grief and mourning in an appropriate manner for the state of his health, until the conscience returns to its natural state, and its performance returns to its previously compatible level.
- Develop the ability to recognize, accept and confront depression.
- Reducing depression and returning performance to its initial levels.
- Develop healthy cognitive patterns and beliefs that are specific to oneself and the world, the development of which leads to alleviating symptoms of depression.

Interim goals

- Oral identification of sources of depression, if possible.
- The therapist discusses with the patient about his physical and psychological health, and the times he was in good health before he was diagnosed with cancer.
- The therapist discusses with the patient his excessive thinking about his health, by providing support, guidance, and giving meaning to his life.
- Write what the patient feels of anger towards his health and how it has deteriorated.
- Explain the relationship between depression and anger suppression.
- The patient feels sadness during the session, and discusses the disappointment arising from the deterioration of his health as a result of his cancer.
- The therapist explains to the patient (through his words) the relationship between depression and concealment of emotions, such as anger, hurt feelings, sadness ... etc.
- The therapist motivates the patient to adhere to taking the prescribed medication at the specified times.
- Inform the doctor in charge of any side effects caused by the medication.
- Apply the Minnesota Polymorphism Test, the Beck Depression Test, and other tests to determine the degree of depression, the patient's need for drug therapy (eg antidepressants), and take the necessary precautions to avoid suicide.
- Encouraging the patient to take care of his appearance on a daily basis (without anyone urging him to do so).
- The therapist determines the cognitive statements that the patient directs to himself.
- Replacing the negative and self-defeating statements that the patient directs to himself with realistic statements and positive cognitive meanings.
- The patient declares that he no longer thinks of harming himself.
- To make positive statements those include a feeling of hope for the future.

- To issue positive statements regarding himself and his ability to face life pressures.
- To participate in sports and recreational activities those reflect the increase in his activity and interest.
- To participate in social relations and notify others of his needs and desires.

Therapeutic interventions

- The therapist asks the patient to prepare a list of the causes of his depression, and discusses it with him.
- The therapist assesses the patient's need for antidepressants, and makes the necessary arrangements to obtain the medication.
- Follow-up of the therapist and his evaluation of the patient's commitment to taking his medication, and the extent of its effectiveness.
- Encouraging the patient to share his feelings of depression with others, to clarify and understand its causes.
- The therapist asks the patient to write a letter about his illness, explaining his feeling of losing his health, his anger and his feeling of guilt about what his health has become, in order to get feedback about what he wrote after being informed by others.
- The therapist assigns the depressed patient to read a chapter on depression resulting from chronic organic diseases (cancer is a model).
- The therapist assigns the patient recreational activities to participate in.
- Assigning the patient to write at least one positive statement of proof per day regarding him.
- The therapist makes special arrangements for the conduct and evaluation of the Minnesota Polymorphic Test and the Beck Depression Test.
- The therapist follows up with the patient and re-instructs him regarding appearance and personal hygiene.
- The therapist helps the patient to develop strategies to confront depression (more physical exercise, less self-focus, social participation, increased self-affirmation, involving others in his needs, more expression of anger).
- The therapist explains in detail to the patient about depression and trains him to accept some sadness in his life as a natural change in human emotions.
- The therapist helps the patient to perceive and absorb the automatic cognitive formulations that precede depression and that support hopelessness and helplessness.
- The therapist trains the patient in the technique of stopping negative thoughts related to depression and strengthening positive cognitive thoughts, based on reality, which enhances self-confidence and increases compatible behaviors.
- The therapist trains the patient in the technique of modeling, by presenting examples of the correct models in his environment, (who suffer from cancer), so that he learns to observe non-depressed people even though they have cancer like him, and they are undergoing chemotherapy, which makes him realize the difference Between him and them in order to emulate them, and change his negative thoughts, and thus change his behaviors to positive, with the encouragement of the therapist.
- The therapist trains the patient in the techniques of imagination, so he asks him to close his eyes and imagine himself in a state of depression, and asks him to describe

his feelings and emotions, that he asks him to imagine a happy memory he experienced, and then asks him to describe his feelings and emotions, then asks him to open his eyes and He compares the thoughts that were in his mind at the moment of imagining in both cases, and here the patient realizes that the pleasant and unpleasant emotions are only the result of the thoughts he has.

- The therapist monitors the patient's readiness to commit suicide.
- The therapist makes the necessary arrangements to admit the patient to the hospital when necessary, that is, in the event that he poses a danger to himself or others.
- Supporting social activities and verbal expression of feelings, needs, and desires.

Suggested diagnoses:

- Adjustment disorder with depressive affect.
- The bipolarity of the first type.
- The bipolarity of the second kind.
- Mood dysphoria.
- Cyclical mood.
- Major depressive disorder, frequent.
- Schizoaffective disorder.

8.3 Cognitive-behavioral therapy protocol for pain management template

Behavioral definitions

- Having a serious illness that needs care and is reflected in daily life (cancer as a model).
- A sick condition that requires the patient to undergo medical supervision.
- A positive result for cancer screening and diagnosis.
- Constant pain and frequent headaches, feeling tired constantly, feeling deteriorating health in general.
- Medical complications as a result of substance abuse.
- Psychological and behavioral factors that influence the course of the organic disease.

Far goals

- The stability of the health condition.
- Alleviation of acute organic disease.
- Acceptance of chronic organic disease (cancer) while providing the necessary medical care.
- Elimination of organic symptoms.
- Recognize the role of psychological and behavioral factors in the emergence of organic disease, and focus on eliminating these factors.

Interim goals

- Implementing the doctor's instructions regarding examinations, medications, contraband and treatment.
- Increase the patient's information about his disease.
- The patient shows his sense of responsibility to keep taking the medication at the specified times.

- Formulate steps that he adheres to follow up on his condition by the doctor.
- Inform the doctor about any side effects of the medication.
- Determining the emotional effects of organic disease.
- Reducing the denial associated with his organic disease, and working to increase the expression of his acceptance of the disease.
- Informing the patient of the correct diet that helps him control his organic disease.
- The patient expresses the emotional, behavioral and cognitive changes required to improve his health.

Therapeutic interventions

- The therapist follows up and writes down the patient's compliance with the doctor's instructions, while redirecting him when he fails to comply.
- The therapist arranges for the patient a consultation with a dietician and other professionals as needed.
- The therapist refers the patient to the doctor for a complete medical examination.
- The therapist makes the necessary arrangements that the patient needs to obtain the required medical services.
- The therapist explains to the patient the impact of his lifestyle on his organic disease in a negative way during individual and group sessions.
- The therapist discusses with the patient the necessary steps to ensure that he receives the correct medical care.
- It helps the patient to identify and express the feelings associated with his illness.
- The therapist trains the patient in the technique of distraction (which has been shown to be effective in relieving the pain of cancer patients when undergoing chemotherapy), by giving him examples, such as watching entertaining films when undergoing treatment, or video games for children, or describing in a voice the contents of the treatment room, or use the countdown, or recall pleasant events ... etc.
- The therapist trains the patient in the technique of stopping negative thoughts related to pain, and supporting positive cognitive thoughts, based on reality, which enhances self-confidence and increases compatible behaviors.
- The therapist consults with the doctor and reviews the instructions given to the patient.
- The therapist assigns the patient to attend supportive meetings related to his condition, provided that he discusses the positive aspects of his attendance with the therapist.
- The therapist supports the patient's emotional stability, responsibility for his behavior, and talking to himself in a positive way to reduce risks to his health.

Suggested diagnosis

- Pain disorder, accompanied by psychological factors.
- Disease delusion.
- Somatization.
- Types of inconsistent behavior, related to health.

9. CONCLUSION

In this research paper, we reviewed the steps of preparing a cognitive-behavioral therapy protocol for chronic diseases (cancer as a model), based on the principles and hypotheses of

cognitive-behavioral therapy, and how to apply the various techniques related to this model, by relying on previous programs that have proven effective in reality in reducing accompanying symptoms Cancer, such as anxiety, depression, and chronic pain. The therapist relies on the steps that we have formulated, and the program remains open regarding the number of sessions decided by the therapist and mixes them with the techniques he deems appropriate for the case he is in charge of, because the techniques presented here may work with one case, and may not work with other cases. Therefore, before starting treatment, the therapist should be careful in choosing the appropriate techniques that help the case he is supervising to treat to alleviate the symptoms she is experiencing.

10. Bibliography List:

Belhousini, W. (2011), The effect of a cognitive- behavioral program in the treatment of social phobia among a sample of university students, PhD thesis in school psychology, Faculty of humanities and social sciences, University of Ouargla, Algeria.

Brahmia, D. (2018), Health care and its relationship to psychological pain among cancer patients, PhD thesis in institutional psychopathology, Faculty of humanities and social sciences, University of Ouargla, Algeria.

El-Assy, H. (2014), Cognitive- behavioral therapy for generalized anxiety disorder- a clinical study, Master's thesis in Psychology, The Islamic University of Gaza, Palestine.

El-Azzami, K. R. (2018). The effectiveness of a cognitive-behavioral treatment program in alleviating the symptoms of obsessive-compulsive disorder among a sample of patients, Master's thesis in Mental Health, The Islamic University of Gaza, Palestine.

El-Ghamidi, H. A. (2010), The effectiveness of cognitive- behavioral therapy in reducing anxiety disorder among a sample of those attending psychiatric clinics at the Mental health Hospital in Taif, journal for Educational and Psychological Sciences, 2(1), 12- 51.

Jungma, A., & Peterson, M. (1997), *Psychotherapy Plan*, (A. El- Demerdash, Trad), Anglo- Egyptian Library, Cairo.

Mustapha, M. E. (2009), *Cognitive-behavioral therapy for depression- a detailed treatment program*, Anglo-Egyptian Library, Cairo.

Taylor, C. (2008), *Health Psychology*, (W. Derouiche, & F. Taima, Trads), Dar El-Hamid for Publishing and Distribution, Jordan