Cognitive and Cognitive-Behavioral Therapy for substance abuse disorders

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Abstract

This article describes the current status of Cognitive and Behavioral Therapy as well Relapse Prevention and Coping Skill approaches applied in drug abuse treatments. The objective is show a review about theories and technique used by Cognitive Therapy and others approaches derived that, specifically Relapse Prevention and Coping Skill Treatments.
Cognitive and Behavioral Therapy, Coping Skill, and Relapse Prevention are a short-time, goal-oriented and structured treatments. Thus, they assume a posture directive and active. We pointed out some difference between the theories about Cognitive Therapy, Relapse Prevention and Coping Skill. The Cognitive Therapy accentuated the focus in patient's thought, feeling and circumstances that get in a dysfunctional behavioral. Relapse Prevention and Coping Skill are based in behavioral theories besides of the Cognitive. We, finally, look forward to introduce the lasted scientific finding to helpful the general psychiatric to improve the assistance in dug abuse treatment.

Keywords: *Cognitive Therapy. Behavior Therapy. Prevention & control. Substance-related disorders.*

Introduction

In the last decades there has been a great progress in the clinical use of cognitive therapy (CT) applied to several psychiatric disorders anxiety disorder, personality disorder; eating disorders; several situations of crises[1] and disorders related to the use of psychoactive substances.[2 3 4 5] This interest in CT is due to the promising results of controlled studies which confirmed its efficacy for the treatment of depression when compared to control groups[6]. From this point onwards, cognitive therapy (CT).[6 7 8] behavioral therapy (BT)[9] and cognitive-behavioral therapy (CBT)[10,11] were tried for other mental disorders and were efficient, in several clinical studies for the treatment of chemical dependence and other psychiatric disorders.

This article does not intend to settle the issue of behavioral and cognitive therapy lines. It aims to discuss more in detail: 1) cognitive and behavioral theories; 2) the main techniques of CT; and 3) the techniques used by relapse prevention (RP)[8] and coping-skill training (CST).[13]

The link between cognitive and behavioral theories

According to cognitive theory, chemical dependence results from a complex interaction between cognitions (thoughts, beliefs, schemas), values, opinions, expectations and suppositions)[14] behaviors; emotions; familial and social relationships; cultural influences; and biological and physiological processes.[11] CT is obviously mainly focused on cognitive processes.[12,15] which, in turn, interact with the emotional, environmental and physiological systems, determining the probability of a person being dependent.[16 17]

The clinical practice of CT prescinds from theory[3]. Therefore, CT may be considered the application of the cognitive theory of psychopathology to an individual case.[15 18] It relates the several psychiatric disorders to specific cognitive variables and is based on several formal and comprehensive principles.[10 11] In CT theory, the nature and the function of processing the information and assigning significances to the events of reality are the key to understand the maladapted behavior.[11]

The behavioral theory of chemical dependence focuses on the theories of social learning (classical conditioning, instrumental learning and modeling),[9] which will be detailed below. However, cognitions and behaviors are closely related[3]. One of the basic suppositions of cognitive theory is the fact that cognition has primacy over emotion and behavior.[19] In other words, for cognitive theory, more important than the real situation are the cognitions associated to it. The evaluations assigned to the specific situation influence emotions and behaviors[19,15]. Besides, in the therapeutical process, cognitive alterations precede the emotional and behavioral changes.[19]

Although there are significant differences between cognitive and behavioral theories, lately there has been much debate if cognitive theory unifies psychotherapy and psychopathology.[10] CT uses a set of techniques in the framework of the psychopathological cognitive model,[12] but uses also techniques derived from behavioral models[10]. Given this complex relationship, we recommend that cognitive therapy, behavioral therapy and, especially, their combination, be applied by well-trained professionals, which formation and who master their theoretical grounds.[1 10] Regarding relapse prevention[8] and copping-skills training,[13] they are not formally therapy models. RP and CST are based on cognitive and behavioral theories and their clinical application is based on more refined techniques for the behavior of drug use. Therefore, RP and CST are ideal to be used by general psychiatrists, with adequate training, without neither the need of formation nor the supervisions recommended by Beck, as in CT and CBT.[20]

Behavioral theories and techniques applied to chemical dependence

Several controlled, randomized studies showed the efficacy of behavioral therapy BT to reduce the use of drugs and associated problems.[9]

It may be applied in different settings (hospital, outpatient and household settings) and in different modalities (individual, group and family).[9] BT possesses several techniques, described below, and may be also combined with other treatment modalities, such as motivational interview.[21] BT is concentrated in the strategy of modifying and enhancing the motivational state[22,23] and explores behaviors associated with drug use, aiming to change life style and risk behaviors for the use of drugs.[8]

Theories, techniques and structure of the sessions

The theories which sustain BT have originated in the classical lab experiences of the beginning of the 20th century, which represented a landmark in the history of psychology.[24 25 26] We will describe below the main theories.

Social learning theory

According to Heather, 1997,[26] human beings are not totally rational. Homo sapiens have still instinctive processes.[22 23 24] This instinctive mechanism allows people to act through the means they are more used to do. Social learning theory 24 studies systematically how human beings learn to act, think and feel in determined circumstances.[24] This learning occurs in several levels, but we will highlight here the two main ones: classical conditioning[25] and instrumental learning.[26]

1. Classical conditioning

Pavlov, 1904,[26] conducted a laboratorial experience which demonstrated that a neutral stimulus could be transformed in a learning conditioned stimulus. When ringing a bell (neutral stimulus) and offering meat repeatedly to a dog (non-conditioned stimulus), it salivated. After a certain time period, when ringing the bell, even without the promise of a reward, the dog still salivated. The noise of the bell became a food-conditioned stimulus and the salivation became a conditioned response to the noise of the bell.[24] This model may be applied to human behaviors. Chidress et al., 1993,[24] showed the relationship between the exposure of patients to determined situations, places, objects and people, to their reaction to these signs and claimed that this knowledge could be useful to improve the coping skills of patients regarding the use of drugs.

It must be highlighted that the focus of behavioral theory is on high-risk situations and on drug use behavior.[9]Cognitive theory has its focus on cognitions which elicit craving and on the thoughts and beliefs which facilitate the behavior of searching and using drugs.[27 28 29]

Based on these principles, behavioral therapists map, together with patients, the situations, places, peers, etc., which are conditioned to drug use. They help patients to recognize these signs[8] and to outline new behaviors, aiming to undo some stimuli which are conditioned to drug use.[27 28 29]

2. Instrumental learning

This theory stems from the existence of biological beginnings which attract human beings to the search for immediate pleasure and avoidance of situations which deprive them from the satisfaction or impose suffering.[24] The greatest representative of operant conditioning was Skinner.[25] He demonstrated that positive (satisfactory) or negative (displeasure) reinforcers influenced behavior. BT postulates that the life of chemically dependent subjects is deprived from daily rewards (social contacts, friends, leisure). Besides, patients have difficulty to deal with negative affections, criticism or frustrations.[9]

Moreover, the biochemical effects of the drug proper provoke unpleasant and dysphoric symptoms in its absence. According to the instrumental learning theory, drug represents a momentaneous positive reinforcer for patients who do not find rewards in other behaviors.[9]

Behavioral therapists encourage patients to find pleasure in other situations which do not offer risks and help to deal with withdrawal syndrome, aiming to find rewards different not stemming from the use of drug.[30]

Currently, with the progress of neurochemical research in chemical dependence, this technique may be challenged by two ways: 1) Recent studies postulate the hypothesis that some people have a biologically determined difficulty to obtain pleasure from daily activities and tend to seek it in risk activities such as radical sports and drug use. It was proposed that these people had "brain reward deficiency syndrome".[31] Although not proved, this theory would invalidate the technique of seeking pleasant activities in simple things. 2) In the search for other rewarding activities, patients may keep some distorted cognitions. They may expect finding in a risk-free activity the same intense and immediate pleasure, caused in the moment of using the drug. However, for obvious reasons, no pleasure equals to that caused by the drug and patients may be frustrated and not believe anymore in the therapy and the therapist. Behavioral therapists should be attentive to these issues as to not generate unfounded expectations.

Other technique, based on the instrumental learning theory, is the psychosocial approach described by Budney and Higgins.[32 33] They have incorporated in the therapy some positive reinforcers the vouchers.[34] This treatment program needs three urine samples per week for screening drugs. If no drug is found in the exam, the patient receives a system of vouchers assigning points which can be exchanged by objects consistent with a life style without drugs, such as articles for sport and tickets for cultural events and movies.

In two controlled clinical studies, Higgins et al., 1991 and 1993,[32 33] observed high acceptance, retention and abstinence rates among patients who followed the voucher-based program, when compared to those who received the standard treatment. When replacing vouchers by other forms of less valuable incentives, the outcomes had no significant differences compared to the voucher system.[34]

Cognitive theory and technique applied to chemical dependence

CT is a structured or semi-structured, directive, active and short-term approach.[19 20] It is grounded on the theoretical rationale that the subjects' affection and behavior are, mostly, determined by the way in which they structure their world.[6 20] Therefore, more important than the real situation is the assessment which subject performs about it. The same situation may, therefore, trigger different emotions (sadness, anger, anxiety, etc). For instance, supposing a subject who reaches the garage of his/her building and realizes that he/she has forgotten the keys of the car in the apartment. He/she may assess this situation in different ways, such as the following: 1) when perceiving that the keys are missing, he/she may consider him/herself a "bad luck person" and that his/her day has started badly; the emotion which accompanies this assessment is sadness and discouragement. With this feeling, his/her performance in the job tends to be low. 2) on the contrary, he/she may think that if he/she goes up to fetch the keys, he/she will be late. The emotion which occurs in this case is anxiety. Arriving at job so anxious, he/she is not able to follow the programming of the day: his/her performance also decreases.

CTís goals are to restructure the dysfunctional cognitions and give cognitive flexibility when assessing specific situations,[15] such as that exemplified above. CT aims to solve focal problems and mainly to provide patients with cognitive strategies to perceive and respond in a functional way to the real world.[19 20]

CT contrasts with BT for emphasizing the internal experiences (thoughts, feelings, desires[13,35]). Cognitive therapists formulate the patientsí dysfunctional thoughts and beliefs about themselves, about their experiences and their future through hypotheses and, then, test the validity of these hypotheses in an objective and systematic way.[15]

The conceptual grounds for the practice of CT are the following:[15]

- Basic schemas and beliefs

Schemas are mental structures which contain strongly established assessments.[19] The schema, if translated into words, forms hypothetical creations called basic beliefs[19,15]. Basic beliefs, when dysfunctional, are characterized by being irrational, overgeneralized and strict. They lead to mental suffering and maladapted behaviors, besides preventing the accomplishment of goals.[19 15] Frame I shows some examples of dysfunctional cognitive schemas and their respective basic beliefs.

According to Beck,[20] the dysfunctional basic beliefs may be classified in two types: 1) beliefs of hopelessness and 2) beliefs of "not being loved". Table 2 exemplifies the most frequent clinical beliefs and classifies them in two categories.[15 20]

Frame II Examples of dysfunctional central beliefs by category: hopelessness and "not being loved".

Automatic thoughts

The basic central beliefs are generic assessments about oneself, the other and the relationship with the surrounding world. Most times these beliefs are not known and clear to the subject (they are unconscious) but, under determined circumstances, influence the perception about things and are expressed as automatic thoughts, specific to a situation.[5 15 19] Automatic thoughts derive from cognitive "errors"[19] and are closely related to the beliefs. Table 3 exemplifies some cognitive errors and the associated thoughts.[19]

Compensatory strategy

They are behaviors to relieve or annul automatic thoughts and negative emotions.[15 19] For example, we may imagine a musician patient, in a situation in which he will play in public, and a thought come to his mind: "I will play wrong". Reminding that an automatic thought is an inflexible verification, the patient feels sad, frightened and anxious. He, thus, supposes: "if I drink, I will manage to be less anxious and I will be able to play". He asks for an alcoholic beverage and drinks. The behavior of seeking and ingesting alcohol is an example of a compensatory strategy.

We might ask: why has this set of cognitions occurred? A plausible explanation would be the following: the fact of being exposed to this situation has activated, in this patient, a dysfunctional schema which, translated into words, would be: "I am inadequate"; "I am incapable". From this activation onwards, all the cognitive process described is triggered.

Cognitive therapists reach to hypotheses similar to that described above along the therapeutical process.[19] They test, reconstruct their hypotheses and approach the patientís cognitive structure. This building of the global cognitive hypothesis is called cognitive conceptualization, whose concept is below.

Cognitive conceptualization

Cognitive conceptualization is a hypothesis about the patient's thoughts, suppositions, emotions and beliefs. It may be reformulated during the therapy, while gathering new information and evidence.[15,19]

Formulating the hypothesis of cognitive conceptualization

Let's try, by means of Figure 1, to understand how cognitive therapists build the hypothesis of cognitive conceptualization.

The experiences of early life seem to influence the development of a dysfunctional basic belief.[5 15] Let's imagine the following example: a patient with diagnosis of harmful alcohol use and depressive episode reports, in his/her child history, that the father was extremely judgmental, devaluated whatever he/she did and compared him/her all the time with the older brother. The patient, at the unconscious level, begins to formulate, through this and other experiences, a hypothesis about him/herself (self-efficacy, being loved, etc), forming the schemas[19]. This self-evaluation, in words, composes the basic belief.[19] For example, some beliefs, such as "I do not know how to do things correctly", "my father does not like me", "I am not a loved person" are built. Based on these beliefs the subject make some suppositions,[19] such as "I am not loved because I don't do anything right, so, if I make many efforts I will be able to do something well and if I never fail my father will love me". These suppositions will inevitably influence his/her behavior[19]. Facing specific situations, these beliefs and suppositions will be activated and he/she will develop behavioral patterns called compensatory strategies,[19] which aim to relieve the afflictive basic belief[15]. Several situations in life may activate the same basic belief, however, for each situation the behavior may vary, e.g.:

The patient presented above may be exposed to two distinct situations.

Situation 1: after school he/she is lying down, alone, in his/her room, reflecting on his/her school performance. It came, then, to his/her mind an automatic thought: ël am the worst studentí. To this thought he/she attributes a meaning: ël am uselessí. The emotion stemming from this cognition is sadness and a vivid sensation of failure. He/she decides thus to stop studying. Generically, the situation has activated a schema of incapability which was built along the patient's life, throughout his/her child history and early experiences. The schema influences the formulation of thoughts compatible with its content. For a content of incapability, the thought is "I am the worst". This, in turn, influences the emotion, which is coherent with the thought and the scheme. The patient, thus, feels sad and his/her behavior is to drop out from school. The behavior "dropping out of school" is an escaping compensatory strategy to relieve the incapability scheme.

Situation 2: While studying a grammar text, the patient deems difficult its content and realizes that he/she needs to read the text again and thinks: "I will lose the afternoon due to this teacher who demanded me to study grammar" and "I am not intelligent enough to learn this". The evoked emotions are irritation and sadness. He/she closes the book and goes to drink. In this example, the situation activated the schema of vulnerability and incapability. The behavior of closing the book and going to drink was a compensatory strategy which will help him/her to deal with the activated schemas.

Observing Figure 2, we notice that, when having contact with the drug, the patient develops other group of beliefs related to the situation of "using drugs". The beliefs related to the drug maintain a coherent relationship with the more generic basic beliefs. Therefore, the cognitive model proposes that dependence is a result of the interaction between the initial contact with the drug and the cognitions that will be formed under the influence of the basic

Table 1 – Examples of dysfunctional cognitive schemas and their basic beliefs

DYSFUNCTIONAL SCHEMA	BASIC BELIEF
Incapability (primary assumption)	'I am physically, intellectually, professionally, etc., incapable'.
Inadequacy (primary assumption)	'I am ugly, boring, make everything wrong, dress badly, do not know how to speak, I do not know how to dress correctly, etc'.
No esteem (primary assumption)	'I am not a lovable person, I am not loved, I am rejected by people'.
Vulnerability (secondary assumption)	'The real world is threatening and I do not have resources to deal with this or to face it up'.

SOURCE: Booklet of the specialization course on cognitive theory of the Institute of Cognitive Therapy ITC) São Paulo.[19]

Table 2 – Examples of dysfunctional central beliefs by category: hopelessness and 'not being loved'

CENTRAL BELIEFS OF HOPELESSNESS	CENTRAL BELIEFS OF HOPELESSNESS OF 'NOT BEING LOVED' (LACK OF LOVE)
- I have no way out; - I am inappropriate; - I am weak and hopeless; - I am a loser; - I am worse than everybody else (I am not a lucky person); - I am inadequate; - I am inefficient; - I am incompetent; - I will never captivate anyone; - People do not care about me.	- I am worthless; - I am not a lovable person; - I am undesirable; - I am unattractive; - I am bad, so I may be abandoned; - I am actually condemned to be alone.

SOURCE: Beck JS. Terapia Cognitiva, teoria e prática[2]

Table 3 – Cognitive errors and their corresponding automatic thoughts[19]

COGNITIVE ERRORS	THOUGHTS (COGNITIONS)
'Catastrophizing'	'The worst will certainly occur and there is nothing to do'
'All-or-nothing'	'As I will not be able to do this job perfectly, I will not even start it'
'Overgeneralization'	'I ***never*** do anything right!'
Selective abstraction	'My day today was ***only*** problems'
Global judgments	'I have committed another mistake. ***I am*** useless!'

SOURCE: Booklet of the specialization course on cognitive theory of the Institute of Cognitive Therapy (ITC) São Paulo[19]

beliefs. Not all subjects will thus develop dependence when having contact with the drug.

There are two types of drug-related beliefs: 1) facilitating and 2) positive experiences.[12 16 17] Patients, when considering their situation at school as very hard, start thinking that they "deserve" relaxing at the bar during the afternoon; that drinking "improves stress"; and that "talking to friends will be pleasant". These beliefs suffice to elicit automatic thoughts such as "Im going to drinkí and trigger craving[17]. Other beliefs, in the presence of craving, appear: the facilitating beliefs, such as "I canít bear the urge"; "there is only one way to improve this desire: using it!". This set of cognitions pushes the patient to the use, closing a cognitive cycle for the continued use of the drug.

Structure of CT sessions

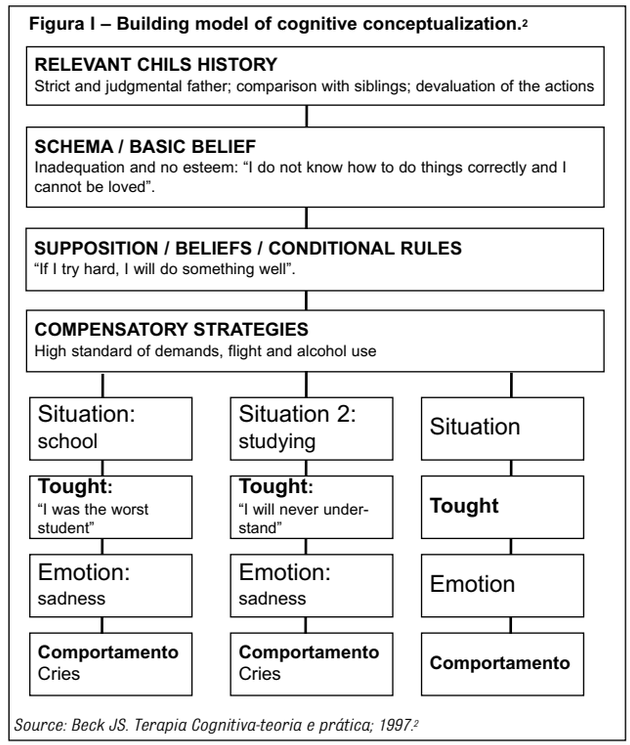
CT is a structured, directive, focal time-limited approach (12 to 24 sessions).[2 5 19 20] It is based on a genuine relationship between therapist and patient, based on mutual sympathy and collaboration.[19 20] The first session may be structured as follows:[15 19]

1. Setting explicitly the agenda, in written, for the session;
2. Establishing the beginning of a sympathetic relationship;
3. Identifying the main focus of the therapy;
4. Gathering information (current complaint, history of the problem, antecedents, comorbidities);
5. Using the information and the complaint to establish a shared goal with the patient;
6. Educating the patient about the methodology used in the therapy;
7. Beginning a theoretical reasoning aiming to build the cognitive conceptualization;
8. Establishing a partnership contract with the patient, including costs, the need of homework between the consultations and secrecy.

The other sessions may be structured in the following way:[15 19]

1. Setting the agenda for the session, based on the events of the week, on the patientís demand and on the therapy's focus (brief update, e.g., about the use of drugs) and on the established goals;
2. Bridge from the previous session;
3. Review of homework;

Figura I – Building model of cognitive conceptualization.[2]



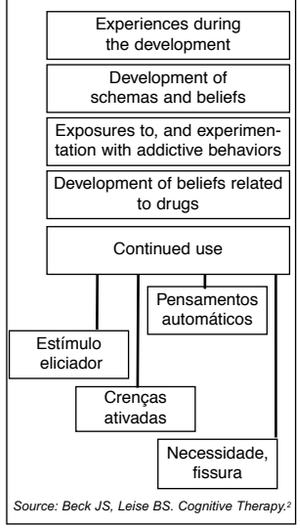
Source: Beck JS. Terapia Cognitiva-teoria e prática; 1997.[2]

6. Discussing the topics of the script established in the agenda (item 1)
7. Setting new homework;
8. Summarizing what was discussed in the session and giving feedback.

Techniques used by cognitive therapy[15,1619]

The techniques aim to identify, test the reality and correct the distor- ted cognitive conceptualizations.[15 20] Patients are instructed about their problem and the therapy.[19] The therapy proper is a learning experience for patients[1.9].During the therapeutical process, patients learn the techniques used by the therapist in order to become their own therapists. The following techniques are used[15,16,17,19,20,28]: 1) Monitoring of the negative automatic thoughts. It may be used a diary, in which patients record their thoughts and the situation that elicited them; 2) Outlying the connections between cognition, affection, and behavior; 3) Performing a cognitive restructuring examining the dysfunctional automatic thoughts and dealing with them: seeking favorable and opposed evidence (reality test); challenging them with questions of the type: "what is the worst thing that could happen?", "which are my real resources to deal with this?"; assessing the real importance of thoughts, aiming to not catastrophize, to take distance from them or to face to them; 4) Mapping the biased cognitions and searching alternative of more reality-oriented assessments, acquiring cognitive flexibility; 5) Identifying and altering the basic beliefs which predispose to performing distorted assessments of their experiences; and lastly, 6) Dealing with the dysfunctional images, eliciting and altering them.

Figura II – *Cognitive model for the psychology of dependence and harmful use of psychoative substances*[2]



Source: Beck JS, Leise BS. Cognitive Therapy.[2]

Relapse prevention (RP)

Marlatt[8] describes: "Relapse prevention is a self-ma- naged program aiming to improve the maintenance stage of the process of changing habits". RP8 is opposed to the models of disease and moral, admitting that chemical dependence is a bad acquired habit, changeable with the participation of the patient. For that, the beliefs and behaviors which facilitate the maintenance of the habit have to be efficiently explored. According to the RP model (Figure 3), when facing a high-risk situation, there are two possibilities: 1) confrontational response and 2) no confrontational response. In the first possibility, each time patients have an adequate response which protects them from the use of drugs, there is an increase in the self-efficacy (positive assessment of their own capability of reaching a goal).[35] With this, the probability of relapse decreases. Otherwise, the lack of a confrontational response leads to a decrease in the self-efficacy which, associated with dysfunctional cognitions about the effects of the drug, leads to the initial use and increases the probability of relapse[8]. The dysfunctional cognitions related to the behavior of searching and using drugs may be:[8 35]

Positive expectations of results [8,35]

Users have a fragmented view about the effect of the drug. They either focus the positive effects of use or the negative ones. At the moment of use, the focus is on the positive effects. Sometimes, the positive expectations appear as positive sensations or images[8].

Effect of abstinence violation [8,35]

During the initial lapse (the first use), patients have a distorted cognition of the type "in for a penny, in for a pound", that is, "as I have already violated my abstinence and had a lapse, I will search then the drug in the same pattern prior to the abstinence". This cognition leads to the continued use and relapse.

The main high-risk situations found in empirical studies[8,35] are:

1) Intrapersonal determinants.
- Negative emotional states;
- Negative physical states;
- Positive emotional states;
- Personal control test;
- Urges and temptations.
- Interpersonal determinants.

2) Interpersonal conflicts;
- Social pressure;
- Positive emotional states.

RP differentiates lapse from relapse. Lapse is the initial violation of abstinence. It is a transitional area for relapse, although the outcome must not necessarily be relapse. Relapse is defined as the return to the continued use which not always is equal to the use pattern prior to abstinence.[8]

RP techniques:

Technique 1: Identification of the motivational state[22]

According to Proshaska and DiClemente,[23] the motivation of patients follows a spiral in these stages: 1) Pre-contemplation: patients do not recognize having problems related to the use of psychoactive substances; 2) Contemplation: patients recognize having a problem, although cannot change neither their behavior, nor their life style to reach, as a goal, abstinence; 3) Action: patients recognize their problem related to the use of psychoactive drugs and are committed to change their behavior by means of efficient strategies (change of life style, recognition and confrontation of risk situations, etc); 4) Maintenance: patients, having achieved abstinence, make decisions in the sense of keeping the new behavior.

The recognition of the patient's motivational state is one of the main tasks of the professional.[22] A frame to perform a balance sheet about advantages and disadvantages of the use of drugs[8] may be used to help patients to have a global view of risks and benefits and to make a more consistent decision. It is an excellent technique in the process of solving the ambivalence in pre-contemplative patients.

Technique 2: Identification of risk situations:

The professional should help patients to identify the situations which would increase the chances of use or relapse; they are the so-called high-risk situations.[8] Environments, peers, availability of the drug, easy access and all intra and interpersonal determinants can be risk situations. Patients may avoid situations that can be avoided and delineate efficient strategies to face the situations that cannot be avoided. The professional may ask patients to perform an agenda of their activities in typical days, and, afterwards, identify hours, days of the week, places, people, etc, which may increase the risk of relapse.

Technique 3: Change in the life style

Marlatt8 highlights the importance of changing the life style. Research shows that people who keep going to the same places, having the same peers and maintaining the same attitudes in the abstinence period have more chance of relapsing. The setting of the agenda of typical days may be also useful to identify and change the behaviors which remained, even after the cessation of drug use.

Technique 4: Identification of the relapse process[8]

The relapse occurs through a succession of cognitions and behaviors, in a process that may start with a decision which, apparently, does not have any relationship with the use of the drug. Examining the example of a clinical case: one patient with diagnosis of alcohol dependence had been abstinent for six months. In one afternoon after an interpersonal conflict with his boss, he decided to come home walking by an avenue which he used to attend when he used alcohol. He had no intention of drinking, only walking and relaxing. He strolled by the avenue which had innumerable bars. In one of them, which he used to attend before,

one friend saw him and invited him to go in, where he decided to take only one dose of a distilled beverage. Leaving the bar, he continued walking, now taken by a huge guilt for having violated the abstinence. He entered into another bar and became intoxicated.

Technique 5: Identifying apparently irrelevant decisions[8]

In the example above, the process of relapse started with the interpersonal conflict. The professional should explore this conflict in order to identify possible difficulties in the capability of dealing with conflicts of this nature. The following step was the decision of walking by the avenue with the bars he used to attend before abstinence. The patient made the decision unconsciously. He had no intention of stopping in any of the bars. This unconscious decision which apparently had no relationship with drug use, was called by Marlatt "apparently irrelevant decision". In the process of RP professionals should help patients to identify these situations. The process could have been interrupted at the beginning, if patients identified the decision as a factor that could lead to lapse and relapse.

Technique 6: Cognitive Factors associated with relapse[8]

Still in the previous example, the patient incurred in several dysfunctional cognitions. The first one was thinking that he could go to a bar and not to drink. After the violation of abstinence followed the thought "in for a penny, in for a pound". The professional who applies RP should be attentive to these dysfunctional thoughts, helping the patients to identify and challenge them, based on reality.

Technique 7: Confluence of risk situations[8]

Relapse or initial use occurs due to a confluence of high-risk situations. The greater the number of situations, the higher the chances of use. In our clinical example, the patient gathered several risk situations: 1) he had little skill to deal with interpersonal conflicts; 2) he made a decision without being aware of the involved risk (an apparently irrelevant decision); 3) he had neither challenged nor faced any dysfunctional thought; 4) he was in a place in which alcohol was easily-accessible and highly available; 5) he had little ability to refuse. These points should be exhaustingly explored in the treatment with RP in order that patients learn to map and identify risk situations and confront them with efficient resources.

Differently from CT, RP explores with more determination the processes involved in the use of drug. It does not explore more generic beliefs. However, after being achieved abstinence, there may remain dysfunctional assessments about oneself, the world, interpersonal relationships, view of the past and the future. If the professional identifies any of these cognitive dysfunctions, whose RP resources do not allow exploring, it is fundamental the referral of patients to therapy. Otherwise, they may continue with some maintaining factors for the use of drug that may have an influence in future relapses.

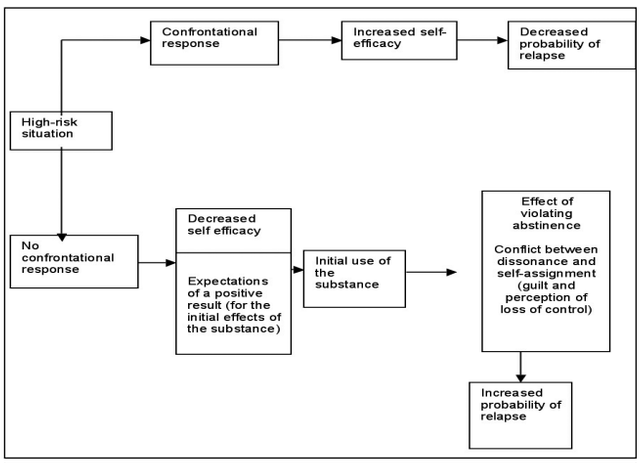


Figure 3 – Cognitive-behavioral model of the relapse process

Coping-skills training (CST)

The theoretical bases of CST are also grounded on behavioral theories.[13 24 25 26] What distinguishes CST from BT is the greater emphasis given by CST to the difficulty of the skills to cope with specific situations. Research[37] show that the lack of ability to deal with some situations is associated with higher consumption of drugs. The main difficulties in terms of skills occur in the following situations: 1) negative feelings; 2) assertiveness; 3) criticizing; 4) receiving criticism; 5) communication; 6) refusing drugs; 7) saying no; 8) socialization; 9) frustrations; 10) postponing pleasures; 11) recognizing and confronting risk situations; 12) craving; 13) planning.

The techniques used in CST are verbal ones and role play.[13 37] At each session the group chooses one of the situations listed and performs a role-play. The group plans a scene in which one or more of the situations listed appear. During the performance, there is no need of being faithful to the script established. Improvisation is important as it stimulates the creativeness. It is advisable to change the character, asking the group who would give a different response to the situation staged. Therefore, patients acquire new flexibility of responses and develop new skills. For each situation, a list of abilities is compiled and the professional stimulates the training of these skills during the role-play. Below, we have selected just some examples of the list of skills to be trained for some situations:

1. Verbal communication skills: 1) have they listened to and observed before speaking? 2) have they asked opened or closed questions? 3) were the statements politely made?[37]

2. Non-verbal communication skills: 1) what was the attitude? 2) was there visual contact? 3) which was the facial expression? 4) which was the tune of voice employed? 5) how have they moved their feet, hands and head?[37]

3. Assertiveness: 1) have patients thought before speaking? 2) were they objective and clear in what was said? 3) were they sure of being listened to? 4) has the position been reaffirmed if they realized not having been listened to?[37]

4. Criticizing: 1) have they calmed down before speaking? 2) have they stated the criticism as a personal opinion, rather than as an absolute fact? 3) have they criticized the behavior and not the person? 4) have the tune of voice been firm but not angry? 5) have they been willing to listen to the other? 6) have they been clear in the issue that was criticized, without leaving doubts about what was the criticism?[37]

5. Receiving criticism: 1) have they managed to listen without being defensive? 2) have they managed to clearly assess the criticism and select the pertinent points? 3) have they managed to explore the criticism with questions to be sure of what was the other's criticism?[37]

6. Refusing alcohol: 1) have they managed to say "no"? 2) while denying, have they been clear, firm, without hesitation? 3) have they made visual contact? 4) have they suggested alternatives to alcohol? 5) have the person been told not to offer alcohol again? 6) have they avoided vague answers?[37]

7. Saying no: 1) have they reviewed what was prioritary? 2) have they indeed decided to refuse? 3) have they made clear that the request was understood, but despite that it would be refused? 4) were they firm, clear, brief and decided? 5) how was the posture (non-verbal communication)? Has this posture been coherent with the verbal communication?[37]

Obviously, we have not discussed here all the desired skills for the listed situations, but the objective was to make clear which situations should be worked and that a set of skills should be practiced. We remind that, similarly to relapse prevention, the coping skill training do not demand a formation and may, with an adequate training, be applied in the clinic by the general psychiatrist.

Conclusion

All professionals linked to the attention of the chemically-dependent subject should know the theoretical foundations of CT, BT and CBT. While CT has his focus on the restructuring of the dysfunctional cognitions, BT is grounded in the relationship between the behaviors and the several real situations. It aims to undo the dysfunctional links which lead to dependence. CBT uses theories and techniques from CT and BT. All these modalities of therapy have an unanimous recommendation to be applied by professionals with formation and who know the theoretical foundations that ground them. However, relapse prevention (RP) and coping-skills training (CST), although not being exactly psychotherapic modalities, are ideal to be applied by professionals who do not want to undergo formation courses on therapy.

Relapse prevention explores cognitions and behaviors associated only with the use of drugs, through motivational techniques, those for the restructuring of cognitions and modification of behavior and has a good efficacy, proved in clinical studies.

CST aims to identify real and emotional situations and, through psychodramatic techniques, to explore each situation involved in the behavior of the dependent subject. The objective is a flexibilization of responses. Risk situations for the use of drugs are objectively tested through role playing, until patients find the best strategy for them.

RP and CST are easily applied and may be used by professionals without formation in therapy. However, as already said, these modalities of treatment do not explore generic basic beliefs and behaviors, as CT does. Professionals should recognize that, even after abstinence, generic dysfunctional basic beliefs, which could not be solved with RP or CST, might remain. In this case, patients should be referred to therapy, as to not leave any maintaining factor for the use of drugs that could predispose to a future relapse.

References

1. Dattilio MF, Freeman A. Estratégias Cognitivo-Comportamentais de Intervençoes de Crise. 2ʃ ed. Porto Alegre: Artes MÈdicas; 2004. p. 114-31.

2. Beck JS, Liese BS. Cognitive Therapy. In: Clinical textbook of Addictive Disorders 2nd ed. Frances RJ, Miller SI, editors. New York: Guilford Press; 1993. p. 547-73.

3. Beck AT, Wright FD, Newman CF, Leise BS. Cognitive Therapy of Substance Abuse. New York: Guilford Press; 1993.

4. Liese BS, Franz RA. Treating Substance use Disorders with cognitive therapy: Lesson learned and implications for the future. In: Frontiars of Cognitive Therapy. Frontiers of Cognitive Therapy. Salkouski P, editors. New York: Guilford Press; 1996. p. 470-508

5. Wright JH, Thase ME, Clark MD. Cognitive Therapy. New York: American Psychiatric Press; 1997. p.1-5.

6. Blackburn IM. Depressão em pacientes hospitalizados. In: Scott J, William JMG, Beck AT, col. editors. Terapia Cognitiva na pratica clinica. Porto Alegre: Artes Médicas; 1994. p. 1-30.

7. Tiffany ST. A cognitive model of drug urges and drug-use behavior: Role of automatic and non-automatic processes. Psycological Review, 1990;(97):147-68.

8. Marlatt GA, Gordon GR. Prevençao da RecaÌda. Porto Alegre: Artes Médicas; 1994.

9. Carrol KM. Las terapias conductuales basadas en la ciencia para la dependencia de drogas. Psiquiatrìa y Salud Integral, 2002;2(1):46-53.

10. Beck AT, Alford BA. O poder integrador da Terapia Cognitiva. Porto Alegre: Artes MÈdicas; 2000. p. 22-33.

11. Alford EA, Nocross JC. Cognitive Therapy as integrative therapy. Journal of Psychotherapy integrations; 1991;1(3):175-90.

12. Liese BS, Beck AT, Seaton K. The Cognitive Therapy Addictions Group. In: DW Brook & HI, editors Spitz. Group Psychotherapy of Substance Abuse. Washington, DC: American Psychiatric Press; 1999.

13. Monti PM, Rohsenow DJ. Coping-Skills Training and Cue-Exposure Therapy in the Treatment of alcoholism. Alcohol Research & Health, 1999;(23):107-15.

14. Beck AT, Alford BA. O poder integrador da Terapia Cognitiva. Porto Alegre: Artes Médicas; 2000.

15. Beck JS. Terapia Cognitiva teoria e pratica. Porto Alegre: Artes Médicas; 1997.

16. Liese BS, Franz RA. Treating substance use disorders with Cognitive Therapy: lessons learned and implications for the future. In: Salkowski P. Frontiers of Coginitive Therapy. editors. New York: Guilford Press; 1996. p. 470-508.

17. Beck AT, et al. Cognitive Therapy of Substance Abuse. New York - London: Guilford Press; 1993.

18. Alford, BA. Introduction to the special issue: Psychotherapy integration and cognitive psychotherapy. Journal of Cognitive Psychotherapy: An International Quarterly, 1995;9(3):147-51.

19. Serra AM. Apostila do Curso de Especialização em Terapia Cognitiva. Not published. Instituto de Terapia Cognitiva Dra. Ana Maria Serra (ITC) / Associaçao Brasileira de Psicoterapia Cognitiva (ABPC). Sao Paulo: ITC; 2004.

20. Beck AT, Rush AJ, Shaw BF, Emery G. Terapia Cognitiva da depressao. Porto Alegre: Artes MÈdicas; 1997.

21. Miller WR. A Cognitive-Behavioral Aproach: Treating cocaine Addiction. Rockiville, MD. editors. National Institute on Drug Abuse. NIH Publication; 1998. p. 98-4308.

22. Miller WR, Rollnick S. Entrevista Motivacional: Preparando as pessoas para a mudanÁa de comportamentos adictivos. Porto Alegre: Artes MÈdicas; 2001.

23. Prochaska JO, DiClemente CC. Toward e comprehensive model of change. In: WR Miller & N Heather, editors. Treating addictive behaviors: Processes of change. New York: Plenum Press; 1986. p. 3-27.

24. Abrans DB, Niura RS. Social learning theory. In: Blane HT, Leonard KE, editors. Psycological theories of drinking and alcoholism. New York: Guilford Press; 1987. p. 131-78.

25. Skinner, BF. Science and human behavior clinical applications and new directions. In: Hollin CR, Trower P, editors. Pergamon Press; 1986.

26. Heather N, Robertson I, editors. Problem drinking. Oxford University Press; 1997. p. 117-55.

27. Childress AR, Hole AV, Ehrman RN, Robbins SJ, McIel-Ian AT, OíBrien CP. Cue reactivity and cue reactivity interventions in drug dependence. In: Onkey LS, Blaine JD, Boren JJ, editors. Behavioral Treatment for Drug Abuse and Dependence. Rockville, MD: National Institute on Drug Abuse; 1993:73-95. NIDA research Monograph Serie nʃ 137.

28. Moorey S. Abusadores de drogas. In: Scott J., Williams JMG, Beck AT e colaboradores, editores. Terapia Cognitiva na Pratica Clinica. Porto Alegre: Artes MÈdicas. 1994; p.192-223.

29. Davey G. Classical conditioning and the acquisitions of human fears and phobias: A review and synthesis of the literature. Advances in Behaviour Research and Therapy 1992;(14):29-66.

30. Budney AJ, Higgins SJ. A Community ñ Reinforcement plus Vouchers Approach: Treating Cocaine Addiction. Rockville, MD: National Institute on Drug Abuse; 1998.

31. Comings DE, Blum K. Reward deficiency syndrome: genetic aspects of behavioral disorders. Prog Brain Res 2000;126:325-41.

32. Higgins ST, Delaney DD, Budney AJ, et al. A behavioral approach to achieving initial cocaine abstinence. Am J Psychiatry 1991;148:1218-24.

33. Higgins ST, Budney AJ, Bickel WK, Hughes JR. Achieving cocaine abstinence with a behavioral approach. Am J Psychiatry 1993;150:763-9.

34. Higgins ST, Budney AJ, Bickel WK, Foerg FE, Donham R, Badger GJ. Incentive behavioral treatment of cocaine dependence Arch Gen Psychiatry 1994;51:568-76.

35. Daley CD, Marlatt AG. Relapse Prevention. In: Lowinson JH, Ruiz P, Millman RB, Langrod JG, editors. Sustance Abuse. A Comprehensive Textbook. 3rd ed. New York: Williams & Wilkins; 1997. p. 458-67

36. Liese BS, Najavts LM. Cognitive Behavioral Therapies. In: Lowinson JH, Ruiz P, Millman RB, Langrod JG, editors. Sustance Abuse. A Comprehensive Textbook. 3rd ed. New York: Williams & Wilkins; 1997. p. 467-78

37. Monti PM, Abrams DB, Kadden RM, Cooney NL. Treating alcohol dependence - a coping skills

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