

# We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

**4,800**

Open access books available

**122,000**

International authors and editors

**135M**

Downloads

Our authors are among the

**154**

Countries delivered to

**TOP 1%**

most cited scientists

**12.2%**

Contributors from top 500 universities



**WEB OF SCIENCE™**

Selection of our books indexed in the Book Citation Index  
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?  
Contact [book.department@intechopen.com](mailto:book.department@intechopen.com)

Numbers displayed above are based on latest data collected.

For more information visit [www.intechopen.com](http://www.intechopen.com)



# Cognitive-Behavior Therapy for Substance Abuse

Bernard P. Rangé<sup>1</sup> and Ana Carolina Robbe Mathias<sup>2</sup>

<sup>1</sup>*Graduate Program in Psychology, Psychology Institute,  
Federal University at Rio de Janeiro,*

<sup>2</sup>*Psychiatric Institute, Federal University at Rio de Janeiro,  
Brazil*

## 1. Introduction

Drug use and drug abuse are old topics that are increasingly current. New drugs and new ways of using them appear all the time, and researchers dedicate more and more time to understanding their mechanisms and effects. The 2008 National Survey on Drug Abuse and Health Survey estimated that 8% of the American population over 12 years of age made use of an illegal drug in the previous year, and that half of this population (56%) stated they currently consumed alcohol (Substance Abuse and Mental Health Services Administration, 2009). The most commonly used illegal drug was found to be marijuana, with 15% of users stating they consumed it daily or almost daily.

When treating a drug user, it is necessary to go beyond the effect that the drug produces on the individual in order to understand how the person deals with the drug, to identify what leads them to use drugs and what role drugs have in their life. With this in mind, Cognitive-Behavioral Therapy (CBT) encourages the individual to become aware of their drug problem, to understand how it affects their daily functioning, and to establish a healthier way of life.

## 2. Diagnostic criteria

When evaluating a person's substance use problem, two diagnoses should be taken into account: substance abuse and substance dependence. A diagnosis of substance abuse is made when the substance is used in large amounts, and when social, occupational, physical, and family impairments occur which do not keep the individual from continuing to use the substance. On the other hand, a substance dependence diagnosis is made when there is tolerance, withdrawal, loss of control of the amount taken and the time spent, and interruption of important activities (DSM-IV-TR, 2002). This difference is important in deciding how to conduct treatment.

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, APA, 2002), the diagnostic criteria for substance abuse and substance dependence are as follows:

**DSM-IV Substance Abuse Criteria**

- a. A maladaptive pattern of substance use leading to clinically significant impairment or distress as manifested by one (or more) of the following, occurring within a 12-month period:
  1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.
  2. Recurrent substance use in situations in which it is physically hazardous
  3. Recurrent substance-related legal problems
  4. Continued substance use despite persistent or recurrent social or interpersonal problems.
- b. The symptoms have never met the criteria for Substance Dependence.

**DSM-IV Substance Dependence Criteria**

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring any time in the same 12-month period:

1. Tolerance, as defined by either of the following: (a) A need for markedly increased amounts of the substance to achieve intoxication or the desired effect or (b) Markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as manifested by either of the following: (a) The characteristic withdrawal syndrome for the substance or (b) The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in larger amounts or over a longer period than intended.
4. There is a persistent desire or unsuccessful efforts to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance (e.g., seeing different doctors, driving long distances), use the substance (e.g. smoking in the company of others), or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent physical or psychological problem that is likely to have been caused or exacerbated by the substance (for example, current cocaine use despite recognition of cocaine-induced depression or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

**3. Comorbidity**

Substance abuse and dependence disorders are often related to other psychiatric disorders. When making a first assessment, it is important to try to identify whether comorbidity is unrelated to substance use or a consequence of it. This can change the course of treatment. For instance, in the case of a patient who abuses alcohol and suffers from depression, their drinking may be a consequence of depression, and thus the treatment should focus primarily on depression; on the other hand, if depression occurred during or after the development of the substance abuse disorder, the former may be a consequence of the latter, and so the treatment should focus more on the abuse problem. However, it is often the case that this assessment can only be made after the substance use ceases, and one can then observe whether the symptoms persist in the absence of the substance.

The main disorders associated to substance abuse and dependence are mood disorders (Swendsen, 2010 et al.; Ilgen et al., 2008) and anxiety disorders, such as social phobia and generalized anxiety disorder (Robinson et al., 2011, Swendsen et al., 2010; Botton et al., 2006). Studies show that other disorders can occur concomitantly with substance use, such as post-traumatic stress disorder (Petrakis et al., 2011), pathological gambling (Mathias et al., 2009) and nicotine dependence (Ferron et al., 2011). In addition to these disorders, the relationship between substance use and suicide is cause for concern (Vijayakumar et al., 2011). This aspect must always be the object of an in-depth evaluation, as it puts the patient's life at immediate risk.

#### **4. Treatment**

Cognitive-behavioral treatment of substance abuse must take into account three theoretical principles: Motivational Interviewing (MI), which establishes motivation and commitment to treatment; Cognitive Therapy (CT) for substance abuse, which makes it possible to identify and change thoughts and beliefs that lead the patient to seek drugs and alcohol, and Relapse Prevention (RP), which deals with high-risk situations, leading to better results.

Treatment is successful when the therapist is able to interconnect these three theoretical principles, adjusting them according to each patient's needs.

##### **4.1 Motivational interviewing**

MI is an approach developed in the 1980s by William Miller and Stephen Rollnick (2001) specifically to treat patients who were resistant to behavior changes. It is defined as a collaborative and evocative technique that respects the patient's autonomy (Rollnick, Miller and Butler, 2008). Motivation is seen as a changeable phenomenon that can be influenced, constructed and developed within the patient-therapist relationship.

The main point of MI is to work on ambivalence, the feeling of doubt that gives rise to a conflict between wanting/doing and not wanting/not doing something. For a better understanding of ambivalence, the authors made use of the stages of change as developed by Prochaska, DiClemente and Norcross (1992), according to which the patient goes through certain stages in order to achieve the change that is needed.

First, in what is called the pre-contemplation stage, the person does not consider change, or denies the need for it. When the person admits the need for change but is still uncertain as to whether they want to make the change or not, they have moved to the contemplation stage. In this stage, ambivalence is at its peak. After contemplation, the person starts to take some steps in order to change, which characterizes the preparation stage. Then comes the action stage, the moment in which change is put into effect. When change has been established and the person is adapted, it can be said that has entered the maintenance stage. Ambivalence will be present in all motivational stages, with relapse into the previous behavior always a possibility. This is why researchers have organized these stages in the form of a spiral, with every relapse being seen as a circling of the spiral, getting ever closer to the maintenance stage.

MI believes the process of change is the patient's responsibility, and depends on their performance. With this in mind, Miller and Rollnick (1991) defined five principles that

underlie the motivational approach and provide the process of change. According to these principles, the therapist helps the patient carry out change in whatever stage of change they find themselves. The principles are as follows:

- Expressing empathy: empathy is the capacity to understand another's feelings and perspectives without judging, criticizing or blaming. The effect of empathy is that of making the patient feel understood and accepted, which leads them to achieve self-liberation and conceive of change. This acceptance that the therapist offers the patient also favors the forging of a good therapeutic alliance and builds the patient's self-esteem, which will be important in establishing change (Miller and Rollnick, 1991). It is essential that the motivational therapist consider ambivalence as something normal, both with regard to the human condition and to change itself. If a patient feels understood when going back and forth between wanting and not wanting change, this understanding itself can leverage their decision and make them change. In fact, ambivalence will be present in all the processes of change, and should be accepted and understood (Miller and Rollnick, 1991).
- Developing discrepancy: the therapist must point out the discrepancy between the patient's life goals and where their drinking and drug use behavior is leading them (Miller and Rollnick, 1991). According to Miller and Rollnick (1991), motivation for change comes when the individual perceives a discrepancy between their behaviors and the life goals they have defined. MI's main point is making the patient notice the reasons for change on their own. In general, people tend to value their own evaluation of the facts more than what others tell them. Therefore, in this approach, it is the patient who brings up their concerns, not the therapist (Miller and Rollnick, 1991).
- -Avoiding argument: It's essential that the psychotherapist avoid argument and direct confrontation with patients. Most of the time, patients start treatment conflicted, at the same time wanting and not wanting to change. This way, if the therapist argues in favor of change, the patient might strongly defend the opposite, and tend to remain as they are (Miller and Rollnick, 1991).
- -Rolling with resistance: it is the patient who must perceive their excessive drinking and drug use behavior as harmful, and the therapist's role is to promote this perception without pushing the patient. In order to do so, the therapist tries to alter the perceptions that make the patient resistant to change, encouraging them to consider other aspects of their actions. The decision to change always comes from the individual. Therefore, the therapist cannot persuade the patient nor show them solutions, instead assisting them in coming up with their own solutions (Miller and Rollnick, 1991).
- - Supporting Self-Efficacy: this involves the patient's hope and capacity to carry out change. In promoting self-efficacy, the therapist builds the individual's confidence in their own ability to handle a task or challenge. (Miller and Rollnick, 1991).

#### 4.2 Cognitive model

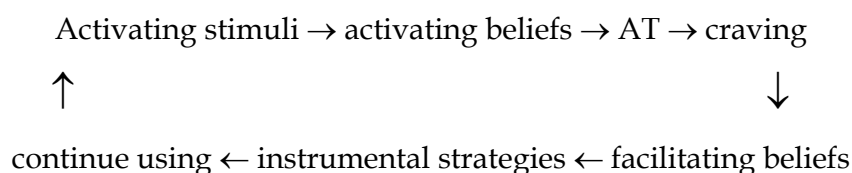
Beck et al (1993) developed a cognitive model specifically to address the problem of substance abuse. People who present drug and alcohol problems tend to have core and intermediate beliefs regarding lack of love, helplessness, hopelessness and a low threshold for frustration and boredom. Intermediate beliefs are referred to as addictive beliefs and can be separated into other categories, forming a belief scheme.

When someone starts using a substance, anticipatory beliefs appear. At first, these beliefs take the form of statements such as “drinking will make me feel better” or “it’s ok to use every now and then”. As the person starts obtaining gratification from the drug, beliefs start changing into statements such as “smoking relaxes me” or “drinking makes me more cheerful”. Anticipatory beliefs change according to the “anticipation → use → anticipation dysphoria → use” cycle into relief-oriented beliefs, and from these to permissive beliefs (Beck et al., 1993).

When permissive beliefs appear, beliefs that are contrary to use develop concomitantly, especially with regard to illegal drugs. These are called control beliefs. Permissive beliefs and control beliefs manifest simultaneously in the subject, and using or refraining from using drugs is a result of the conflict between permissive and control beliefs (Beck et al., 1993).

Activation of permissive beliefs occurs in the presence of certain activating stimuli, those that can activate the person’s cravings and beliefs regarding use. These situations are individual and may vary in degree of risk. A situation can be very activating one day and not present any risk to the subject on another day or another time (Beck et al., 1993).

The cognitive model for substance abuse was organized in the following manner:



Cognitive therapy works on each of the belief categories: anticipatory, permissive and core. The therapist will introduce or reinforce better adaptive beliefs. The cognitive-behavioral therapist helps the patient act based on more realistic thoughts regarding their problem. Upon restructuring their thoughts, the subject starts to take charge of problems and situations previously considered unbearable, and that many times led them to use or abuse a substance (Beck et al., 1993).

### 4.3 Relapse prevention

The goal of relapse prevention (RP) is to prevent or limit the occurrence of relapse based on a combination of behavioral abilities and cognitive interventions (Marlatt and Donovan, 2005). The core factor in this approach is the view of addictive behaviors as hyper-learned and maladaptive habits. In many cases, people present maladaptive coping mechanisms when faced with stressful situations (for instance, smoking or drinking to reduce anxiety). It should be noted that the individual is not responsible for their acquired habit, nor are they in voluntary control of the behavior. However, the individual takes active responsibility during the process of habit change (Marlatt and Gordon, 1999).

Some factors are considered vital in approaching addictive behaviors:

- Determinants of addictive behaviors, including situational and environmental history, beliefs and expectations, individual history, and previous learning experiences with psychoactive substances or activities.

- The consequences of behaviors whose goal is to better understand both the reinforcing effects that may increase use and the negative consequences that may serve to inhibit use. In addition to the effects of drugs on activities, attention is paid to social and interpersonal relationships experienced by the individual before, during and after engaging in addictive behavior. Social factors are involved in social learning of the addictive behavior, as well as in the subsequent performance of those activities.

Relapse is seen as a transactional process, as a series of events that may or may not lead the person back to the initial pattern of behavior, the same pattern they had before contemplating a change directed at quitting or cutting down on substance use. The return to the previous pattern of behavior is called a relapse, and substance use following the return to the change process is called a lapse. One of the main goals of the treatment is to teach the patient to keep substance use during the change process in a state of lapse, so that it won't evolve into a state of relapse (Marlatt and Gordon, 1999).

When the subject falls into the latter state, relapse can also serve to provide information on what caused the event, and, this way, find ways to correct the problem so as to avoid new relapses. In this case, Marlatt and Gordon (1999) refer to such an event as a prolapse, as it places the individual in an advanced stage.

It is also important to discover determinants and common reactions to the first lapse, and to understand how these factors affect the likelihood of relapse or recovery. Furthermore, RP does not ignore the fact that each substance has particular characteristics and activities that influence use/abuse (Marlatt and Gordon, 1985).

Marlatt and Gordon (1985) initially presented the following relapse model:

Relapse response → ↑self-efficacy → ↓ relapse likelihood

↑

High-risk situation

↓

No coping → ↓ self-efficacy / expectations → early use → EVA → ↑ relapse likelihood  
response with respect to substance positive result

In order to understand the scheme, it is assumed that the subject presents a perceived control or self-efficacy during the abstinence period. Thus, the better self-efficacy is perceived, the longer the abstinence period. The person will remain abstinent until a high-risk situation occurs, at which point their sense of control increases the risk of relapse.

The three most common types of relapse factors are negative emotional states, interpersonal conflicts, and social pressure. Negative emotional states correspond to situations in which the individual experiences a negative mood, feeling or emotional state at the moment when lapse occurs, such as, for instance, anger, sadness, anxiety, boredom, etc. Interpersonal conflicts involve an ongoing or recent conflict associated to any interpersonal relationship. The social pressure factor corresponds to situations in which the person is suffering influence from another person or group that exerts pressure, leading to the undesired behavior.

According to the scheme, after the risk situation, the individual will follow one of two paths. One is that of carrying out an effective behavioral or cognitive coping response. When someone is successful in one situation, the likelihood increases that they will be successful in the next situation with which they are faced. The feeling of confidence in one's own ability is related to self-efficacy, and so the more one faces high-risk situations successfully, the lower the likelihood of a relapse.

The other path a person may take after being faced with a high-risk situation occurs because they may not have acquired coping abilities, or the appropriate response may have been inhibited by fear or anxiety. Another possibility is that the person may not have perceived the situation as a high-risk one. This leads to a decrease in self-efficacy, a feeling of impotence and a tendency towards apathy. If the person is also tempted to use the substance, there is increased probability of a relapse. The probability is even higher when the individual has maintained positive expectations regarding the effects of the substance. Therefore, the inability to cope with high-risk situations, along with the expectations of positive results, greatly increase the probability that a lapse will occur. All this leads to a decrease in self-efficacy. Whether or not this first lapse will signify a total relapse will depend on the person's perceptions of the cause of the lapse and the reactions associated to the event.

RP does not see abstinence from an "all or nothing" perspective, and works with a mechanism called Violation Effect (AVE). AVE occurs in certain circumstances, such as before the first lapse, when the individual is personally committed to an extended or indefinite abstinence period. Furthermore, there are factors that may interfere in the AVE intensity, such as severe external justification, commitment strength or the effort made to maintain abstinence, the presence of key people, perception of the lapse as voluntary or as a preplanned activity, the value or importance of the undesirable behavior, among others. There is also the hypothesis that AVE can be intensified by affective cognitive elements, such as cognitive dissonance (conflict and guilt) and the effect of personal attribution (blaming oneself for the relapse).

Another effect of AVE is attributing the cause of the lapse to personal weakness or failure. In sum, AVE proposes a way to see lapses that is not an "all or nothing" process. According to AVE, the person can avoid the lapse through a combination of greater awareness, coping abilities, accepting responsibility, and personal choice.

Later on, Witkiewitz and Marlatt (2004) proposed some changes to this model when they concluded that the relapse process was more complex than previously thought. They proposed the dynamic relapse model. In this model, relapse determinants are seen as multidimensional and dynamic. Each risk situation the patient faces sets off triggers and their consequences. The person's response is complex, involving distal risk factors, cognitive processes and cognitive-behavioral coping abilities. Distal risk factors are, for instance, family history, substance consumption time, social life, and co-morbid psychopathology. Cognitive processes involve self-efficacy, result expectations, craving, AVE, and motivation (Marlatt and Donovan, 2005). Distal risks, cognitive processes and coping ability can interact in various ways, and there is a cause-and-effect relationship between them, that is, they may end up influencing one another (Marlatt and Donovan, 2005).



## **4.4 Most commonly used techniques**

### **4.4.1 Reflective listening**

Simple reflection. This technique consists of offering a sentence or part of a sentence back to the speaker. It is important that the sentence be offered back in the form of an assertion, rather than a question. The goal is for the patient to reflect on what they are saying. It's a good strategy to be used when the patient is resistant to behavior change, as well as a way for the therapist to show understanding and acceptance.

Amplified reflection. This technique is used to reflect something the patient said in an exaggerated and amplified manner. At this point, the psychotherapist makes an assertion in a more exaggerated tone than the one used by the patient. If well carried out, amplified reflection will encourage the patient to take a step back and give change some thought. One must be cautious about the tone of voice used, as a sarcastic tone may elicit a hostile and resistant reaction. Radical terms, such as "never", "always", "all", and "nothing" should be avoided in this reflection.

Double-sided reflection. This reflection technique consists of acknowledging what the patient said and adding the other side of the ambivalence, based on the material the patient had already put forth in a previous moment. An example of double-sided reflection would be, "On the one hand, you acknowledge the harmfulness of drinking; on the other hand, drinking with your friends is your only time to relax."

Paraphrasing. The goal of this technique is to paraphrase the information that the patient himself/herself brings. This technique is used mainly when the patient puts forth arguments for denying the social problem. In paraphrasing, the therapist acknowledges what the patient says and offers a new meaning or interpretation. Just as reflections, paraphrasing must always be an assertion, never a question.

### **4.4.2 Pros and cons**

This involves having the patient write down, in an objective manner, the pros and cons of using and not using the substance. A 2 x 2 matrix is then built so that the four squares can help the patient to better visualize their options, as they're able to analyze each of the pros and cons.

### **4.4.3 Coping cards**

These are cards of a portable size that the patient can carry anywhere they go. On these cards, notes are written down which, in risk situations, will help them resist a relapse. The patient chooses the notes that will be most helpful in facing said situations, but these are some examples: pros and cons, distraction techniques, and breathing exercises.

### **4.4.4 Self-monitoring**

This involves making a daily or weekly record of substance consumption. In these records, the patient describes the number of occasions and time of day in which they use, and may also include thoughts and feelings associated to the activity. This technique allows the patient to become aware of the dimension their problem has reached and how present it is

in their life. For this reason, it's a technique that is used mainly when beginning treatment. It may be used during sessions by asking the patient for an account of a typical day when the substance is consumed, or it can be assigned as homework, so that the patient can record the instances of consumption as they occur throughout the week.

#### **4.4.5 Identifying and restructuring automatic thoughts**

The patient learns to identify thoughts that generate the desire to drink or use the drug, as well as those that keep them active while the patient continues to use the substance. Once thoughts are identified, they can be restructured, that is, the patient learns how to interpret the situation so as to weaken the desire to use the substance or to engage in any harmful behavior.

#### **4.4.6 Problem solving**

Escaping from problems is a very common reason for people to engage in drug and alcohol abuse. Because of this, the problem solving technique is important in helping patients imagine and find an efficient solution to a problem. This can be done in six steps: (1) define the problem in a clear and specific way; (2) imagine as many solutions as possible through brainstorming; (3) examine the pros and cons of each selected solution, assessing their present and future consequences; (4) choose the best hypothetical solution; (5) implement the chosen solution through planning, preparation, and practice; (6) evaluate success and, in case the problem is not solved, return to step 4.

#### **4.4.7 Social skills training**

Consists of capacitating the patient to respond in an effective and adequate way to certain situations that may put them at risk or that are already a risk, such as, for instance, being invited to a bar. This training must contain strategies with which the patient can avoid or abandon a risk situation, and should explore the patient's family, social, and work environments. During training, the patient's level of anxiety must be evaluated and is expected to decrease as adequate behaviors are maintained.

#### **4.4.8 Craving management**

This consists of learning awareness of craving for alcohol or drugs and understanding its components. Based on this, a way of managing these symptoms is offered through techniques involving distraction, relaxation, problem solving, ability training and coping cards (notes to help patients deal with risk situations).

#### **4.4.9 Distraction**

The main goal of distraction techniques is to change the patient's focus from their inner world (thoughts, memories, physical symptoms) to the outer environment. This technique is very useful in moments of craving, when patients are at risk for a relapse. According to Beck et al. (1993) there are some resources that can be easily employed which enable the patient to find a distraction:

1. Patients are instructed to focus their attention on what is around them, such as the landscape, people, cars, furniture, etc.
2. Talking to other people. This may involve initiating conversation, calling a friend or even joining a group.
3. Leaving the place they find themselves in. Visiting a friend, driving or going to the supermarket, for instance.
4. Carrying out domestic chores, such as doing dishes, organizing closets or fixing appliances. In addition to distracting the person, these activities build self-esteem, since they'll be doing something useful.
5. Reciting a favorite poem or prayer, or even writing them down.
6. Engaging in recreational activities, such as attention-demanding games: videogames, cards, puzzles, crossword puzzles.

#### Example of an Intervention

The identification of factors and the skills to deal with them was developed in a group treatment consisting of 27 ninety-minute sessions held twice a week for patients referred by the Worker Health Inspection Division (DVST) of the Federal University of Rio de Janeiro to the Alcoholism Rehabilitation and Research Center (now the Teaching, Research and Reference Center for Alcoholology and Addictology - CEPRAL). The goal was to develop a treatment program for alcohol addicts based on a cognitive-behavioral approach whose aim would be early full remission.

The specific goals were: (1) to develop learning and practice of new behaviors to replace the drinking behavior through training in intrapersonal and interpersonal skills; (2) to teach coping strategies to be used when dealing with internal and external high-risk situations that could trigger addictive behavior; (3) to establish general strategies for modifying one's lifestyle, and (4) to develop strategies that would favor adherence to the process of change produced by the treatment.

Interpersonal skills training involved learning to recognize social signs, developing the ability to initiate, maintain and redirect conversations with strangers and acquaintances, strengthening assertive behaviors, such as saying "no" or requesting that others change their behavior. Intrapersonal skills were related to learning muscle and/or breathing relaxation strategies, anger management, and cognitive restructuring to reduce states of anxiety and/or depressive moods. Other skills that were considered important included identifying high-risk situations for relapse, such as going to bar on a Friday night while depressed and abstinent for several days, as well as facilitating beliefs that can lead to alcohol use. Strategies for lifestyle changes included actions that encourage an increase in activity, especially enjoyable activities, as well as motivation to take part in new social groups.

The working hypotheses were that training in social skills would be efficient in treating alcoholism, with the end goal being alcohol consumption abstinence, defined as Early Full Remission in the DSM-IV (APA, 2002); that addictive behavior is functionally related to deficits in skills for coping with everyday problem situations, and that acquiring skills for recognizing and handling risk situations contributes to adherence to a state of Early Full Remission.

Some of the instruments used included anamnesis interview, Structured Interview for Anxiety Disorders for DSM-IV (ADIS-4), Structured Interview for Personality Disorders for DSM-IV (SCID-TP), Beck Anxiety and Depression Inventories, Hamilton Anxiety Inventories (HAMA) and (HAMD). The results of these inventories were compared to applications at the end of the program.

Below is a description of a hypothetical group intervention for other groups.

A first session can include introduction to the work plan, the rules and norms that will guide the work within the group, and introduction of each of the members, including a brief report of their problem for evaluation. The goals can be making patients feel comfortable, having them interact with one another and receive orientation regarding the group's general principles, goals, procedures, and rules. The relapse prevention model, cognitive model, and social skills training model can also be introduced.

The second session can be dedicated to handling alcohol-related thoughts, encouraging members to replace thoughts of drinking with other thoughts by means of group discussion and exercises. A list of pros and cons with regard to drinking behavior can be made so as to make the benefits of not drinking clearer when compared to drinking. This list would be based on the members' past experiences with alcohol.

The third session can be dedicated to developing problem solving strategies - acknowledging that problems exist, but can be solved. The first step is knowing how to identify the problem. This is followed by a brainstorming session in which several different solutions, even those that could be considered strange, are presented. After that, the pros and cons of each one are objectively analyzed, a hierarchy is established, and the most promising alternative is used. If this alternative works and solves the problem, then good; if not, the next one is used, and so on. Role-playing and discussion techniques may be used with the group.

Subsequent sessions can be dedicated to social skills training, aiming for establishing a conversation with the goal of developing basic communication skills, based on the idea that conversation is the first step in establishing interpersonal relationships. In order to make starting a conversation easier, it is suggested that open questions be used so as to encourage a response. This type of question always includes the use of adverbs such as *when, since when, where, what, how, why*, etc. The reply will be longer and this may favor identification of any common experiences. These communication techniques also recommend that the person speak about themselves, describing facts and experiences, since this increases chances of finding something in common with the other person. It is very important to emphasize the development of listening and observation skills. The conversation may be ended politely, leaving the other with the feeling that the conversation was pleasant. Obstacles that may make it difficult for each of the members to establish effective communication must be identified so that they can be overcome.

The session in which assertiveness training will start will be held after basic social skills have been strengthened. These skills require learning to express feelings in a direct, honest, and adequate manner, speaking in a clear, firm, and decisive tone, establishing eye contact, using "me" statements ("I prefer it when you act this way toward me", "I don't appreciate your yelling at me", etc). Through role-playing, debates, and exercises, members of the

group learn to say “no” and suggest alternatives. They can also learn to request that other people change their behavior in cases where these people are insistent in their invitations to go drinking. Other sessions on this topic can be dedicated to making and receiving compliments, offering and taking criticism, refusing alcoholic beverages, and so on.

Subsequent sessions can be dedicated to close personal relationships, aiming at developing skills to deal with the difficulties and conflicts that appear in the context of such relationships. In order to establish effective communication, it's very important to combine skills such as being assertive, showing an ability to express positive feelings, offering and taking constructive criticism regarding upsetting behaviors before negative feelings can accumulate, making and receiving compliments, and listening actively. Being a dynamic listener helps build proximity, affection, support, and understanding. It's also important to have direct conversations with one's partner about sex, so that they can become aware of what you think, feel, and want. Special emphasis should be given to certain relationship skills, such as expressing feelings in an empathetic and assertive manner, ability to discuss and negotiate, solving problems and conflicts, personal change, and helping the other change. Generalizing and transferring this knowledge to everyday life will depend on each person's comprehension and consistent training for reaching this goal.

The importance of non-verbal communication must be emphasized to the extent that there needs to be a correspondence between verbal behavior (what is said) and non-verbal behavior (how it is said). This is done by discussing the different components of non-verbal communication: posture, space (distance) between people, eye contact, head signals, facial expression, tone of voice, gestures and miming. Role-playing can be used to model these exercises.

Breathing and muscle relaxation exercises, as well as imagination techniques, should be introduced, seeing as many drinkers use alcohol as a sort of self-medication to help them relax and control tension, stress, and anxiety. It is important to learn to be aware of tension in the body, and to learn how to relax by tensing and relaxing eight specific muscle groups. This progressive muscle relaxation was conceived by Jacobson (1938) and has been widely used in CBT since the 1950s (Conrad & Roth, 2007). Relaxation exercises can be carried out in groups, combining suggestive techniques taken from autogenic training (Schultz, 1967) and imaginary technique exercises with positive visualization. Another kind of relaxation that can be used during these sessions are breathing technique exercises, described as diaphragmatic breathing, such as those used in yoga and/or meditation classes.

Regarding the learning of intrapersonal techniques, the first one can be dedicated to anger management, since anger is the main factor related to relapses. Therefore, learning to discriminate anger triggers and knowing how to function under the effect of this emotion is very important, hence the need to define anger and highlight its positive and negative effects. It's essential to differentiate situations that trigger anger directly or indirectly, as well as the responses they manifest (internal reactions). Another very important point to highlight is that anger, like all emotions, has a duration, and that it necessarily decreases and passes. For this reason, firstly it must be pointed out that the first thing a person can do when feeling angry is do *nothing*. Secondly, the person should start diaphragmatic breathing. Thirdly, they should reflect on the interpretation they've made of the event that may have triggered anger in order to check if their assessment is correct, if there have been distortions, or if other interpretations can be conceived of. Finally, if they have calmed down, the person can

start talking in an assertive manner to the one whose behavior triggered the anger. It's a good idea to examine situations that cause the group members to get angry, and to use stress inoculation exercises in order to help them learn anger management.

Sessions can also be dedicated to obtaining a reversal of negative thoughts. Learning to identify negative or pessimistic thoughts is important for changing them and being able to notice how they influence our feelings. Learning to restructure them and replace them with other, more realistic thoughts is useful and necessary if one wants to do away with feelings of sadness, which are another source of relapses. This skill can be incorporated through practical exercises using record forms for dysfunctional thoughts and group role-playing. More specifically, it may be necessary to try to change core beliefs that are irrational and unrealistic, and replace them with more realistic beliefs.

Further on, a revision can be made of relapse prevention and cognitive models (beliefs and automatic thoughts), social skills training (assertiveness, non-verbal behavior, offering and taking criticism, negotiating), and the importance of empathy in close personal relationships. Relaxation training and problem solving training can be redone. Further attention should be paid to coping with feelings such as anger, fear, tension, sadness, and joy.

Increasing time spent on enjoyable activities with the goal of highlighting the importance of the amount of time dedicated to leisure and enjoyable activities is a way of avoiding negative thoughts. Patients should try to develop a variety of enjoyable activities through the enjoyment chart technique (Rangé, 1995) and a wish list, highlighting the identification of obstacles. Increasing the social support network is a necessary goal for developing and maintaining interpersonal relationships that can provide the support a person needs to feel more confident in their abilities. It is also important to identify ways in which interactions can be a source of support: (1) who can provide help? (2) what kind of support is sought? (3) how can you obtain the help you need? Finally, it is necessary to demonstrate, with the goal of obtaining a model, effective ways (direct and specific requests) and ineffective ways (indirect, unspecific requests) to ask for support.

Is it also essential to dedicate attention to emergency plans for a variety of stressful situations that can arise unexpectedly, and include strategies for solving them. It is also necessary to deal with persistent problems, taking into account the changes that have occurred since the treatment began and identifying the problems that still persist.

The last session is again dedicated to a conversation about relapse prevention, considering the increase in awareness that apparently irrelevant decisions can help trigger relapses. It's important to highlight the ability to think about each choice, anticipate risks, and analyze the last relapses and the apparently irrelevant decisions that may have led to them. An analysis of the treatment is made, including patient feedback, so that the group can be properly dismissed.

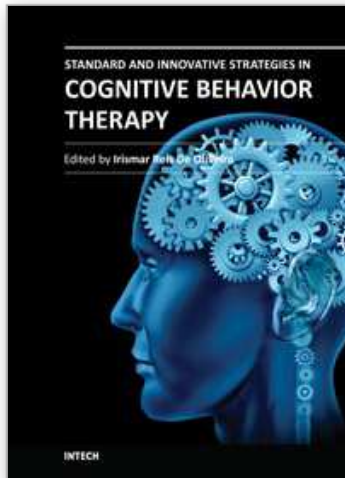
## 5. Conclusions

Working with individuals who have drug and/or alcohol abuse issues is not usually very gratifying, but maybe it is stimulating precisely due to this. In dealing with patients who are addicts, it is important that the therapist remain "centered", trying not to demonstrate helplessness or hopelessness, while at the same time not expecting constant progress. The

therapist must provide his or her patient with feedback, training, techniques, and support, but, at the same time the therapist cannot accept responsibility for the patient's problems. The therapist must always remain calm in the face of a crisis situation and help the patient apply problem solving, while knowing that he or she cannot solve crises for them.

## 6. References

- American Psychiatric Association. Manual Diagnóstico e Estatístico de Transtornos Mentais. 4 ed. Texto revisado (-DSM-IV-TR). Porto Alegre: Artmed; 2002
- Beck A.T.; Wright, F.; Newman,C.; Liese,B. (1993) Cognitive Therapy of Substance Abuse. New York: The Guilford Press.
- Bolton J, Cox B, Clara I, Sareen J. Use of alcohol and drugs to self-medicate anxiety disorders in a nationally representative sample. *J Nerv Ment Dis.* 2006 Nov;194(11):818-25.
- Ferron JC, Brunette MF, He X, Xie H, McHugo GJ, Drake RE. Course of smoking and quit attempts among clients with co-occurring severe mental illness and substance use disorders. *Psychiatr Serv.* 2011 Apr;62(4):353-9.
- Ilgen MA, Hu KU, Moos RH, McKellar J. Continuing care after inpatient psychiatric treatment for patients with psychiatric and substance use disorders. *Psychiatr Serv.* 2008 Sep;59(9):982-8.
- Marlatt, G.A. Donovan, D.M. (2005). Relapse Prevention: maintenance strategies in the treatment of addictive behaviors. New York: Guilford Press.
- Marlatt, G.A. Gordon, J.R. (1985). Relapse Prevention. Guilford Press.
- Mathias, A.C.R., Vargens, R.W., Kessler, F.H., Cruz, M.S. Differences in Addiction Severity Between Social and Probable Pathological Gamblers Among Substance Abusers in Treatment in Rio de Janeiro. *Int J Ment Health Addiction.* 2009, 9: 239-249.
- Miller W.R. & Rollnick, S. (1991). Motivational interviewing: Preparing people to change addictive behavior. New York: Guilford Press.
- Monti P.M., Kadden, R.M., Rohsenow, D.J., Cooney, N.L., Abrams, D.B. (2005) Tratando a Dependência de Álcool: Um Guia de Treinamento das Habilidades de Enfrentamento (seg. ed.). São Paulo: Roca.
- Rosenheck R, Desai R. Substance use comorbidity among veterans with posttraumatic stress disorder and other psychiatric illness. *Am J Addict.* 2011 May-Jun;20(3):185-9.
- Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy Toward a more integrative model of change. *Psychotherapy: Theory, research and practice*, 19, 276-288.
- Substance Abuse and Mental Health Services Administration (2009) Results from the 2008 National Survey on Drug Use and Health: National Findings (Office of Applied Studies, NSDUH Series H-36, HHS Publication No. SMA 09-4434). Rockville, MD.
- Robinson J, Sareen J, Cox BJ, Bolton JM. Role of Self-medication in the Development of Comorbid Anxiety and Substance Use Disorders: A Longitudinal Investigation. *Arch Gen Psychiatry.* 2011 Aug;68(8):800-7.
- Swendsen J, Conway KP, Degenhardt L, Glantz M, Jin R, Merikangas KR, Sampson N, Kessler RC. Mental disorders as risk factors for substance use, abuse and dependence: results from the 10-year follow-up of the National Comorbidity Survey. *Addiction.* 2010 Jun;105(6):1117-28.
- Vijayakumar L, Kumar MS, Vijayakumar V. Substance use and suicide. *Curr Opin Psychiatry.* 2011 May;24(3):197-202.
- Witkiewitz, K. Marlatt, G.A. (2004) Relapse prevention for alcohol and drug problems: That was zen, this is tao. *American Psychologist*, 59, 224-235.



## **Standard and Innovative Strategies in Cognitive Behavior Therapy**

Edited by Dr. Irismar Reis De Oliveira

ISBN 978-953-51-0312-7

Hard cover, 190 pages

**Publisher** InTech

**Published online** 14, March, 2012

**Published in print edition** March, 2012

Cognitive-behavioral therapy (CBT) is the fastest growing and the best empirically validated psychotherapeutic approach. Written by international experts, this book intends to bring CBT to as many mental health professionals as possible. Section 1 introduces basic and conceptual aspects. The reader is informed on how to assess and restructure cognitions, focusing on automatic thoughts and underlying assumptions as well as the main techniques developed to modify core beliefs. Section 2 of this book covers the cognitive therapy of some important psychiatric disorders, providing reviews of the recent developments of CBT for depression, bipolar disorder and obsessive-compulsive disorder. It also provides the latest advances in the CBT for somatoform disorders as well as a new learning model of body dysmorphic disorder. Two chapters on addiction close this book, providing a thorough review of the recent phenomenon of Internet addiction and its treatment, concluding with the CBT for substance abuse.

### **How to reference**

In order to correctly reference this scholarly work, feel free to copy and paste the following:

Bernard P. Rangé and Ana Carolina Robbe Mathias (2012). Cognitive-Behavior Therapy for Substance Abuse, Standard and Innovative Strategies in Cognitive Behavior Therapy, Dr. Irismar Reis De Oliveira (Ed.), ISBN: 978-953-51-0312-7, InTech, Available from: <http://www.intechopen.com/books/standard-and-innovative-strategies-in-cognitive-behavior-therapy/cognitive-behavioral-therapy-for-alcohol-abuse>

**INTECH**  
open science | open minds

#### **InTech Europe**

University Campus STeP Ri  
Slavka Krautzeka 83/A  
51000 Rijeka, Croatia  
Phone: +385 (51) 770 447  
Fax: +385 (51) 686 166  
[www.intechopen.com](http://www.intechopen.com)

#### **InTech China**

Unit 405, Office Block, Hotel Equatorial Shanghai  
No.65, Yan An Road (West), Shanghai, 200040, China  
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元  
Phone: +86-21-62489820  
Fax: +86-21-62489821



© 2012 The Author(s). Licensee IntechOpen. This is an open access article distributed under the terms of the [Creative Commons Attribution 3.0 License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

IntechOpen

IntechOpen