

Intervention based on Dialectical Behavioral Therapy for the Treatment of Problems related to substance use

Intervención basada en la Terapia Dialectico Conductual para el tratamiento de problemas relacionados con el consumo de sustancias

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Abstract:

Substance Use Disorder is a condition that generally presents comorbidity with other mental health problems, in addition to representing one of the most important health problems with high costs. However, despite social and health efforts, the data show an increase in the incidence and prevalence of this problem and traditional treatments have high dropout and relapse rates. Therefore, it is necessary to contribute to the study of the phenomenon of substance consumption and generate more effective intervention proposals. One of the therapies that has shown effectiveness over traditional interventions aimed at substance use is the Dialectical Behavioral Therapy (DBT). This may be because this therapy offers a multimodal, comprehensive and flexible treatment that can be used transdiagnostically in both adults and adolescents, and because it addresses problematic emotions and behaviors, such as the abuse of psychotropic substances. The present theoretical review aims to show the bases of DBT dialectical behavioral therapy, the adaptations made for cases with substance abuse and the evidence, so far available, of the effectiveness of interventions based on DBT for the management of problems related to consumption of substances.

Keywords:

Intervention, Dialectical Behavioral Therapy, Skills, Substance Use Abuse, Substance Use Disorder

Resumen:

Los trastornos por consumo de sustancias psicoactivas es una condición que generalmente presenta comorbilidad con otros problemas de salud mental, además de representar uno de los problemas de salud más importantes con altos costos. Sin embargo, pese a los esfuerzos sociosanitarios los datos muestran un alza en la incidencia y prevalencia de dicho problema y los tratamientos tradicionales presentan altos índices de deserción y recaídas. Por lo anterior, es necesario contribuir al estudio del fenómeno de consumo de sustancias y generar propuestas de intervención más eficaces. Una de las terapias que ha mostrado mayor efectividad frente a las intervenciones tradicionales basadas en la terapia cognitiva conductual clásica dirigidas al consumo de sustancias es la Terapia Dialectico Conductual (TDC), esto puede deberse a que esta terapia ofrece un tratamiento multimodal, integral y flexible que se puede utilizar de forma transdiagnóstica tanto en adultos como en adolescentes y a que se dirige a emociones y comportamientos problemáticos como es el caso del abuso de sustancias psicotrópicas. La presente revisión teórica pretende mostrar las bases de la terapia dialéctica conductual TDC, las adaptaciones realizadas para casos con abuso de sustancias y la evidencia, hasta ahora disponible, de la eficacia de intervenciones basadas en la TDC para el manejo de problemas relacionados con el consumo de sustancias.

Palabras Clave:

Intervención, Terapia Dialectico Conductual, Habilidades, Abuso de Consumo de sustancias, Trastorno por uso de sustancias

INTRODUCTION

The use of psychoactive substances leads to the development of different social, psychological and health problems such as accidents, illnesses, unplanned pregnancies, school or work

dropouts, poor academic performance, substance use disorders, violence and death, generating significant costs at the individual, local, national and global levels.¹

According to the World Drug Report 2022 and 2023 prevalence continues to rise, during 2020 globally approximately 284

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million people, aged 15-64 years, consumed some type of drug², while during 2021 it was estimated that more than 296 million people consumed some type of drug, reaching an increase of 23% compared to the previous decade.³ On the other hand, it is important to mention that the number of people who presented a drug use disorder in 2021 soared to 39.5 million, an increase of 45% in 10 years.³

In Africa and Latin America, the majority of people receiving treatment for drug use are under 35 years of age, which may be related to the fact that the age of onset of drug use has been found to be increasingly younger.²

In Mexico, the latest data obtained from the National Survey on Drug, Alcohol and Tobacco Use (ENCODAT) 2016-2017 have shown that the age of initiation of consumption is decreasing and that, in addition, there is an increase in the availability of both licit and illicit drugs. In the case of tobacco, an increase of 3 percentage points was found from 2011 (48%) to the 2016-2017 reported results (51%), with respect to persons aged 12 to 65 years who reported having smoked once in their lifetime. Regarding alcohol consumption, a percentage of 71% of persons aged 12 to 65 years who reported having consumed alcohol once in their lifetime remained from 2011 to 2016. Regarding illicit drugs, a continuous increase has been noted in the number of people who consume them in 2008 there was a 5.2%, according to the National Addictions Survey, in 2011 a 7.2% and in 2016 a 9.9%.¹ It is important to mention that, in terms of demand, amphetamine-type stimulants have become the main cause of treatment in Mexico, from 2017 to 2022 the consumption of amphetamines, methamphetamines, ecstasy or stimulants for medical use grew by 218%. The demand for consumption of these substances accounted for 46.2% of cases, followed by alcohol 24.6% of cases, and marijuana with 13.3% of cases.^{2,4}

These data correspond to the findings in the State of Hidalgo, Mexico, where it has been identified that the most commonly consumed drugs are crystal methamphetamines, alcohol, marijuana, tobacco and cocaine. An alarming 450% increase in crystal meth use was detected from 2017 to 2022 among adolescents aged 12 to 17 years old and adults aged 18 to 29 years old, of which 90% are men.⁵

On the other hand, according to a study conducted by Villatoro et al.⁶ in 2016, with Mexican students, ever tobacco use was 30.4% and the average age of initiation of this substance was 13.4 years. 53.2% had drunk alcohol and 14.5% had drunk to excess. The prevalence of ever drug use was 17.2%. The drugs of choice among adolescents are marijuana (10.6%), inhalants (5.8%) and cocaine (3.3%).

In the state of Hidalgo, according to the national survey on drug use among students 2014, drug use ("any drug") is lower than the national average in high school youth, both in the categories "ever in life" (10.3%), "in the last year" (6.8%) and in the "last month" (3.2%). However, at the baccalaureate level, students exceeded the national average for the use of "any drug" in all categories: "once in a lifetime" (25.3%), "in the last year"

(17.7%) and in the "last month" (10.6%). In addition, it is possible to note that at both the high school and secondary level there are no major differences between the percentages for "any drug" and "illegal drugs".⁷

It is important to pay special attention to the incidence of substance use in adolescents and young people, since this is a stage considered to be a high-risk stage for the initiation of substance use, generating various health damages that have an impact on their individual, family and social development.⁸ The characteristics of this age group, such as lack of planning, curiosity or the desire to gain acceptance from others, may predispose adolescents to substance use, while at the same time they normalize their behavior and minimize the consequences.⁹ So far, although the factors involved in substance use have been extensively studied, the results are inconclusive.¹⁰ This may be due to the complexity of the behavior. Nevertheless, they can be classified into different spheres: individual, family, peer, school and community.¹⁰⁻¹³ There are many factors that can make an adolescent more vulnerable to the consumption of psychoactive substances or that can intervene in the consumption behavior, but it is important to consider that the presence of these factors only increases the probability of the behavior occurring, but does not determine it.¹³

In addition, it should be considered that the early onset of drug use increases the risk of dependence, due to the biological, psychological and social vulnerability characteristic of this population group.⁸ This may be related to the fact that prolonged use of psychoactive substances modifies the functioning of brain structures, so that early drug use increases the likelihood that a person will develop psychopathological problems, such as Substance Use Disorder (SUD).¹⁴ SUD, can be understood with the problematic use of a substance such as alcohol, drugs or prescription drugs and according to the DSM-V¹⁵ at least two of the following criteria must be met, during a twelve month period:

- Hazardous use of the substance
- Consumption-related social or interpersonal problems
- Non-fulfillment of the main roles due to consumption.
- Withdrawal syndrome
- Development of tolerance to the substance
- Repeated attempts to quit or control consumption
- Spending more time than previously thought on consumer-related activities
- Present physical or psychological problems related to consumption.
- Stopping other activities due to consumption

In addition, it is classified into three states of severity according to the number of criteria met: mild (2 to 3 criteria), moderate (4 to 5 criteria) and severe (6 or more criteria).¹⁵

The need arises to continue studying the phenomenon of consumption and to find more effective alternatives to interventions based on classical cognitive behavioral therapy (CBT), which show high dropout and relapse rates.¹⁶ Third

generation interventions, called contextual, including Dialectical Behavioral Therapy (DBT), pay special attention to the context and function of psychological phenomena and not only to their form. In addition, they emphasize strategies for changing context and experience, seeking the construction of broad and flexible repertoires of behavior that are effective.¹⁷ Because DBT targets problematic emotions and behaviors, which occur in a variety of psychological disorders, it is widely applicable as a transdiagnostic treatment strategy, this type of treatment focuses on treating the common factors underlying various psychological disorders and not just the symptoms of a specific disorder, in order to design the intervention it is necessary to identify these factors and examine the risk factors (maintenance) and personal resources, making it a comprehensive treatment.¹⁸

SUBSTANCE USE DISORDER AND COMORBIDITY

Many individuals with substance use disorders also have other mental health disorders.¹⁴ This condition is called "comorbidity", "co-occurring disorders", "dual pathology", "dual disorder" or "dual diagnosis", the conditions of both pathologies interact with each other, influencing each other, which complicates diagnosis and treatment.¹⁹

It has been found that approximately half of the people who experience a mental illness during their lifetime will also experience a substance use disorder and vice versa.²⁰ This is similar to what has been found in other studies, which show that the co-occurrence between SUD and Other Psychiatric Disorders (OPD) ranges between 20% and 50% in general population and between 40% and 80% in clinical population.¹⁹

The disorders with which high rates of comorbidity have been found among the consumption of psychoactive substances are: anxiety disorders, among which generalized anxiety, post-traumatic stress disorder and social anxiety stand out, as well as depression, bipolar disorder, attention deficit hyperactivity disorder, psychotic disorders, borderline personality disorder and antisocial personality disorder.²¹ It is likely that dual pathology shows differences by gender, according to a study of adolescents with substance use who attended the emergency department of a psychiatric hospital, it was found that conduct disorders (39.9%), psychotic disorders (10.3%) and pervasive developmental disorders were more prevalent in males, while mood disorders (24.3%), adjustment disorders (5.7%) and anxiety disorders (20.4%) were more prevalent in females.⁹

This condition of dual pathology generates high levels of biopsychosocial deterioration and quality of life in those who suffer from it, as it is associated with greater severity of addiction and psychiatric symptoms, greater use of medical services, more relapses and treatment abandonment, injection drug use, risky sexual behavior, violent or criminal behavior, destitution and social adjustment problems (work, school, financial and family burden), increasing the risk of disability and social marginalization.¹⁹

Treatment, in the case of dual pathology, should address both conditions using appropriate medications, where required.¹⁴

Because DBT addresses problematic emotions and behaviors and, in addition, offers a multimodal, comprehensive and flexible treatment it can be used transdiagnostically in both adults and adolescents.¹⁸

BACKGROUND AND BASIC PRINCIPLES OF DIALECTICAL BEHAVIORAL THERAPY

Although Dialectical Behavior Therapy (DBT) was initially developed to treat problems related to borderline personality, with emphasis on symptoms of impulsivity and instability, it has also demonstrated its efficacy in other psychological and behavioral problems, such as substance use, which is one of the main comorbidities with Borderline Personality Disorder.²²⁻²⁵ This can be explained by the fact that the general objective of DBT is to contribute to the patient's implementation of effective behaviors, even when very intense emotions are experienced or when there is emotional dysregulation.²⁶

Emotional dysregulation can be defined as the inability to respond flexibly and control emotions, such symptom is not only implicated in BPD, but also in multiple mental disorders.^{27,28}

Referring to Substance Use Disorder, the results of the systematic review developed by Sanchez-Alonso²⁹, which included twenty studies published between 2016 and 2020, showed that emotional dysregulation has a great influence in the drug-dependent population. Other studies support that drugs are often used as a way to modulate emotional states.³⁰⁻³²

DBT has been shown to be effective in reducing emotional dysregulation, impulsive behaviors, cases of comorbidity and in resistant patients. Being an integrative model, the techniques used are compatible with those used by other treatments for SUD, so its development and application could provide numerous benefits at different levels of prevention.²²

It is also important to consider that DBT has also been adapted to the adolescent population, obtaining positive results in its application. It is important to use DBT for adolescents, since this is a developmental stage in which there is a higher prevalence of emotional dysregulation and the appearance of some problem behaviors, including the use and abuse of psychotropic substances.^{33,34}

According to this approach, reality is composed of opposing forces that are in tension. Each thesis contains its antithesis. Dialectical change occurs when a thesis and its antithesis can find a synthesis, which is nothing other than a new dialectic, the most important dialectic for DBT is the one between change and acceptance.³⁵

The dialectical view of reality, the world and behavior can be synthesized in the following points²⁵:

1. Reality is constructed of parts that interrelate and function as a whole. An individual's behaviors cannot be understood individually, but as parts of a broad repertoire within a complex environment. Therefore, if a subject learns skills, he must also learn other related skills and become capable of influencing the environment and carrying out his learning.²⁵

2. Reality is a set of forces that oppose each other. The BPD patient is trapped in polarities and is unable to achieve synthesis. The therapist must help the patient to achieve a viable synthesis between the need to accept himself as he is and his need to change.²⁵

3. The fundamental nature of reality is change or process. The individual and the environment are in an ongoing transaction; therapy focuses on helping the patient become comfortable with change.²⁵

The main objective of DBT is to create a dynamic activity, a balance, between the opposites: acceptance and change.²² The oscillation between acceptance and transformation is what leads the dialectical element to achieve an increase in cognitive, emotional and behavioral flexibility, as well as to break the tendency to polarization.³⁶ Thus the essence of DBT lies in the therapist's skillful combination of strategies based on acceptance and change.¹⁸

Acceptance-oriented strategies are based on Zen principles, patients learn to observe and describe their behaviors, thoughts, emotions and environments without judging them and without trying to change themselves and their situations.¹⁸ In general terms, these strategies seek to get the patient to generate ideas of acceptance (as they are) and to understand that their behaviors make sense and must be understood in context.³⁷ On the other hand, change-oriented strategies are based on behavioral principles, addressing interventions such as exposure, contingency management, problem solving, cognitive restructuring and/or social skills training.¹⁸ The strategies used can be classified as: nuclear, dialectical, stylistic and case management. Nuclear (change-oriented), validation (acceptance) and dialectical understanding strategies are the pillars of DBT.³⁷

DBT skills can be grouped into four major groups³⁸: 1) Mindfulness Skills that seek self-awareness that allow the person to remain aware despite negative thoughts, events and emotions; 2) Emotional Regulation that allows the regulation of emotions, allowing their experimentation and expression; 3) Discomfort Tolerance, allows the tolerance of dysfunctional emotions and better manage crisis situations by accepting it as it is and finally; 4) Interpersonal Effectiveness Skills that involves the ability to express positive emotions and assertive communication.

The flexibility and adaptability of this treatment can be explained by two main factors: first, the emphasis on balancing change and acceptance strategies and, second, its focus on working on emotional dysregulation which is a common element in psychological distress and which is shown to be an alternative approach to other emotional regulation strategies that have proven ineffective in some patients. The adaptation of standard DBT to substance use is one of the adaptations with the strongest empirical support.¹⁸

DILECTICAL BEHAVIORAL THERAPY FOR SUBSTANCE USE DISORDER (DBT-SUD)

When practicing DBT-SUD, therapists employ the same principles, strategies and interventions used in standard DBT.³⁹ From a DBT perspective, the use of psychoactive substances is a learned behavior that can occur as a result of three possible situations: 1) It is an attempt to mitigate emotions perceived as excessively negative or replace them with a pleasurable state, such as drunkenness; 2) Substances are ingested with the intention of producing a state similar to dissociation, or; 3) The use of addictive substances can be triggered by factors related to the social environment.^{18,40}

DBT-SUD is a treatment for people with co-occurring disorders, i.e., those who have both SUD and a mental health diagnosis. Most of the research on DBT-SUD is conducted with people who have both SUD and borderline personality disorder, although some research has been conducted with people with other mental health diagnoses involving severe emotional dysregulation.³⁹ This is why Marsha Linehan believes that this treatment especially benefits those patients who have problematic substance use and who also have emotional dysregulation.²²

The adaptation of DBT in the treatment of substance use disorders is characterized by: a) Adding specific information about substance use to didactic and counseling strategies; b) Expanding and organizing therapeutic objectives considering those related to substance use and; c) Developing skills that allow the person to function in a way that allows him/her to build a life worth living.²²

OBJECTIVE DIALECTICAL BEHAVIORAL THERAPY - SUBSTANCE USE DISORDER

In substance abuse treatment, the hierarchy of goals is as follows²²: a) reduce behaviors that present imminent life threatening danger, b) reduce behaviors that hinder or are not compatible with therapy, c) reduce behaviors that diminish the patient's quality of life, and d) increase behavioral skills. The therapist will focus on achieving several of these goals, but will pay most attention to the higher order behavioral problem manifested by the patient.

For substance-dependent persons, from the DBT approach, substance abuse is the target that occupies the first hierarchical place within the category of behaviors that diminish quality of life.²² Thus, in SUD treatment, the specific goals are⁴¹ : a) decreasing substance abuse, including both illicit drugs and medications; b) alleviating physical discomfort associated with withdrawal and/or abstinence; c) decreasing urges, cravings, and temptations to abuse; d) avoiding opportunities and cues to abuse; e) reducing behaviors that lead to substance abuse; and f) increasing community reinforcement of healthy behaviors.

THERAPEUTIC ATTACHMENT STRATEGIES

From the first individual therapy session in DBT-SUD, the provider should be prepared to use therapeutic attachment strategies, the eight most commonly used strategies in DBT-SUD are^{18,42}:

- 1) Orient the client to the problems that may arise with attachment due to SUD. Work collaboratively with the client to assess potential barriers to engagement in treatment and plan how to overcome them by identifying warning signs.
- 2) Increased contact: Providers work with clients to have high levels of contact at the beginning of treatment to facilitate positive associations with therapy and provide more opportunities to reduce chaos in clients' lives.
- 3) Provide in vivo therapy: Sometimes, attachment can be increased by having the provider bring the treatment to the client, rather than having the client come to the treatment.
- 4) Establish connections with the client's network: obtain the client's consent to talk to the people most important to him/her, in case he/she "disappears".
- 5) Provide longer or shorter sessions as needed: The provider varies the length (and potentially the frequency) of sessions to maximize benefits and client attachment.
- 6) Actively seek out clients who do not attend: Providers use multiple channels of communication, including the possible physical search for clients who have stopped attending sessions.
- 7) Mobilize the team when the DBT-SUD provider becomes demoralized: Not only does the DBT team help address burnout and improve provider motivation, but team members also help take steps to re-engage clients who are in danger of dropping out (i.e., even if they are not the individual therapist).
- 8) Build the client's connection to the provider network: The more connections a client has to treatment, the more likely it is that these connections can be used to help the client stay adherent to treatment.

Each of these strategies is used to help clients stay connected to treatment when their substance use disorder may inhibit this connection, although they should be employed more frequently initially, they will also be used throughout treatment.⁴²

STRATEGIES FOR REDUCING CONSUMPTION BEHAVIOR AND INCREASING EFFECTIVE BEHAVIORS

DBT-SUD integrates several strategies that have been shown to be successful in other substance abuse treatments such as the Relapse Prevention Model⁴⁴, Motivational Interviewing⁴⁵ and the 12-step approach.⁴⁶ Like the Relapse Prevention Model, DBT-SUD uses problem-solving strategies, such as chain analysis, to address interpersonal and contextual factors of high risk for relapse; however, DBT-SUD places equal emphasis on abstinence. Likewise, similar to Motivational Interviewing, DBT-SUD employs change motivation and validation strategies that focus on empathy and acceptance. Finally, DBT-SUD emphasizes, like the 12-step approach, abstinence as the ultimate goal of treatment, uses reinforcement and contingency management strategies, recognizes the importance of a supportive community for recovery and both approaches incorporate spiritual principles, Christianity in AA and Zen in DBT, the main difference being that while for the 12-step

approach substance abuse is a disease, for DBT it is a learned behavior.¹⁸

The DBT-SUD therapist will also use skills training to help clients avoid substance use, particularly skills for when the crisis is addiction, each of these skills is used to help the individual avoid engaging in addictive behaviors, which may include those listed below.^{22,42}

Dialectical abstinence. The dialectical approach (opposites) to abstinence in DBT combines: a) staying totally abstinent, oriented to change; and b) focusing on problem solving and harm reduction in the face of possible relapse, oriented to acceptance that relapse will occur. The therapist will maintain a non-judgmental attitude, helping the patient to mitigate the experience of guilt or other negative emotions about relapse, thus avoiding hopelessness and resignation of the patient.⁴¹

In DBT, the therapist must communicate the expectation of abstinence, asking the patient to commit to stop using drugs immediately (with a period of abstinence that the patient feels he/she can assume). While, on the other hand, the patient learns the behavioral skill of anticipating possible signs of risk in the immediate future, and can proactively prepare responses to high-risk situations.²²

Community reinforcement is a skill in which individuals learn to alter their environments in a way that facilitates the formation of abstinence behaviors.³⁹

Burning bridges is a skill that also helps the client alter the environment by making changes that increase the difficulty of accessing substances.³⁹

Building new bridges involves customers using images and smells to compete with drug cravings.³⁹

Alternative rebellion is a skill in which clients use less destructive forms of rebellion in addition to substance use.³⁹

Adaptive denial involves clients using their thoughts to motivate further abstinence behaviors.³⁹

Clear Mind. During the process of seeking dialectical abstinence, the patient moves from the "addicted mind", characterized by thoughts, beliefs, actions and emotions under the control of drugs, to a "clean mind" characterized by thoughts without drug use, but feeling immune to future problems, which may set the stage for relapse. The alternation between the addicted mind and the clean mind leads to the appearance of a third state of mind, the "clear mind", in which the patient enjoys abstinence without ceasing to be fully aware of the proximity and tendencies of the addicted mind, the therapist will help the patient to stay in this third state of mind where he can see his life out of consumption but being aware that there will be risks that may bring him closer to the addicted mind where he will have to apply strategies or skills to stay within the clear mind.²²

Finally, the DBT-SUD therapist teaches the client to use the skills of mindfulness, interpersonal effectiveness, distress tolerance, emotional regulation and self-control, which are used in standard DBT, in order to avoid addictive behaviors.³⁹

EFFICACY OF DIALECTICAL BEHAVIORAL THERAPY-BASED INTERVENTIONS FOR SUBSTANCE ABUSE

Several studies have demonstrated the efficacy of DBT in addressing problems related to substance use, one of the first studies to show the efficacy of DBT versus traditional treatments, based on classical CBT, was conducted by Linehan et al.²⁴ a randomized clinical trial was conducted with drug-dependent women with BPD, two groups were randomly assigned to receive treatment for one year with a regular treatment or with a treatment based on DBT. Urine studies were conducted and their consumption (quantity-frequency) was assessed by structured interviews at 4, 8 and 12 months (during treatment) and at 16 months follow-up. Participants assigned to DBT had significantly greater reductions in drug abuse throughout the year of treatment and at follow-up than participants assigned to treatment as usual. DBT also had better outcomes at sample maintenance, in addition participants assigned to DBT had significantly greater gains in global and social adjustment at follow-up than those assigned to treatment as usual. DBT has been shown to be more effective than treatment as usual in treatment as usual in substance abuse treatment in this study, providing further support for DBT as an effective treatment for severely dysfunctional BPD patients across a variety of presenting problems.

Similarly, in the meta-analysis conducted by Haktanir and Callender⁴⁷ six studies were integrated that studied the impact of DBT-based treatment in decreasing symptoms associated with substance use disorder. The DBT groups were superior to the alternative treatment and waiting list groups in remission of substance use symptoms or in increasing abstinence from substance use. When DBT was compared with comparison groups on follow-up assessment scores, no significant differences were observed. However, after eliminating a U.S. population study, significant differences were shown between the DBT-treated and comparison groups on these assessments. The findings suggest that DBT is an effective approach in the treatment of substance-related problems, as demonstrated by the post-treatment assessment and the follow-up assessment. These results are consistent with those obtained by Warner and Murphy⁴⁸, who conducted a systematic review of quantitative studies written in the English language studying the effects of a DBT intervention for substance use disorder, retained nine studies, which they reviewed in depth, and found that overall DBT-ST was acceptable and feasible for people with substance use disorder. The findings offered preliminary support for DBT-ST for reducing substance use and improving emotional regulation for this population. Although the interventions described as DBT-ST for substance use disorder were implemented and adapted differently across studies.

Other research has studied the relationship between emotional dysregulation and substance use, implementing a DBT-based intervention such as the study conducted by Maffei et al.⁴⁹, This was based on an open trial involving 244 individuals who were

evaluated with a urine toxicology test and the Difficulties in Emotion Regulation Scale (DERS). 157 patients completed the treatment, which shows a low experimental death; of these, 73.2% presented abstinence and improved their emotional regulation, regardless of the initial severity of their consumption and dysregulation. Regarding the results of substance use, a partial mediation role was found for the improvement in emotional regulation.

According to a theoretical review developed by García-Badillo⁵⁰, which aimed to analyze the efficacy and effectiveness of DBT for the treatment of SUD with and without comorbidity, where 16 articles were included for review, finding that DBT appears to be an effective therapy to treat SUD without comorbidity and in comorbidity with various pathologies, showing significant reductions in substance use, improvement in emotional regulation and reduction of psychopathological symptoms. According to the studies reviewed, DBT also showed superior efficacy compared to other treatments with which it was compared without comorbidity (cognitive therapy, cognitive behavioral therapy, naltrexone) and with comorbidity (motivational interviewing + cognitive behavioral and verbal behavioral therapy + 12 steps). Regarding treatment adherence, DBT maintained mean adherence rates, which were high in all studies that analyzed it in Social Anxiety Disorder (SAD) without comorbidity and medium-high adherence in SAD with comorbidity. Moreover, DBT also managed to maintain improvements at four- and six-month follow-ups, both in cases without comorbidity and in those with comorbidity.

Although several studies have shown promising results, the findings cannot be generalized, so more studies are needed to demonstrate the efficacy of DBT in addressing substance abuse. Cavicchioli et al.⁵¹ conducted dialectical behavior therapy skills training. They found that specifically emotional regulation skills and experiential avoidance are relevant therapeutic mechanisms in the treatment of addictive behaviors. The study was conducted with a group of 186 individuals diagnosed with ED (110 males and 76 females), who underwent pre and post assessments on the PROMIS Questionnaire, Emotional Regulation Questionnaire and the Acceptance-Action Questionnaire II and, provided with an intervention in DBT Skills, clinical variables improved significantly during treatment, regardless of their baseline levels. Changes in emotion regulation showed significant overall effects on improvements in addictive behaviors and significant indirect effects of changes in experiential avoidance were detected in the case of compulsive buying and dysfunctional eating behaviors. Similarly, McCool⁵², studied the effect of a DBT skills intervention on daily alcohol consumption in 48 individuals in a partial hospitalization program at a community mental health center, the variables were measured through diary cards. Multilevel modeling procedures were used to examine the effects of each DBT skill domain and total DBT skills used in relation to the amount of drinks consumed that day and the

following day. Mindfulness skills on the previous day were the only predictor to reach significance when a p-value correction was applied. Prior to a p-value correction, same-day emotion regulation and distress tolerance skills were associated with decreases in alcohol consumption, which may demonstrate that DBT skills may be associated with decreases in drinking behaviors.

In another study, the author along with other researchers found results similar to those presented above, the application of an intervention of these skills decreased the consumption of alcohol and other substances, the domains of emotional regulation and mindfulness were associated with decreased impulses in individuals who entered treatment with high frequencies of alcohol and substance use, day-ahead distress tolerance skills were associated with decreased impulses, and day-ahead interpersonal effectiveness skills were associated with decreased impulses for individuals entering treatment with high frequencies of substance use.⁵³

At the primary and secondary prevention level, studies have been conducted for the application of skills at the school level, where the aim is to include the content in the students' curricula, with a more generalized approach and for crisis management, in addition to providing teachers with tools oriented to this approach. These programs are mainly taught by counselors or psychologists, who give the workshops in a minimum of 42 minutes per week, in addition to providing training to teachers. Finally, it is also proposed the creation of workshops for parents or guardians who are invited during the school year to sessions lasting between 1 and 2 hours, where the topics of orientation, biosocial theory, validation, dialectics, learning principles and tolerance to discomfort are addressed.³³

Some studies have also been conducted in the Latin American population, such as the one developed in the Peruvian population⁵⁴ and another in the Brazilian population.⁵³ In Peru, a study was conducted for the prevention of alcohol consumption, the sample consisted of 100 university students (50 men and 50 women) of first or second grade, who had an alcohol consumption of at least two or three times a week, with an age range between 18 to 21 years and agreed to participate voluntarily in the study, pre-post evaluations were conducted and a follow-up at 3 months through a structured interview of their alcohol consumption, this sample was divided into two groups: experimental group and control group. The experimental group was given an intervention based on DBT skills, two weekly sessions lasting 90 minutes, which addressed: emotional regulation, fullness and awareness, interpersonal effectiveness and motivation-goals. After the intervention it was possible to identify a reduction in alcohol consumption in university students.⁵⁴

The study in Brazil was conducted with a clinical population, with two 51-year-old men diagnosed with Substance Use Disorder and who expressed their desire to stop drinking or treat problematic use of alcoholic beverages. Symptoms of depression and anxiety, stress, degree of alcohol dependence,

self-report of craving and confidence, frequency of drinking, drinking frequency, drink intake and alternative responses to drinking, and target responses were assessed. The intervention design was in individual format and was divided into four phases: a) assessment; b) functional analysis of consumption; c) training in DBT skills: mindfulness and distress tolerance; d) promoting competing responses and maintaining abstinence, and; e) evaluation (post intervention). The results showed that there was a decrease in anxiety, depression and alcohol dependence scores, as well as in the amount of alcoholic beverages ingested.⁵⁵

Finally, it is important to mention that according to the results of a study by Van Den Boch et al.⁵⁶, an adaptation of the standard DBT intervention to one focused on substance abuse or other impulsive behaviors of interest is required. The standard intervention showed no effect on substance abuse in the borderline population with and without substance abuse problems, although it did show a greater reduction in severe borderline symptoms than traditional treatments, mostly based on classical CBT.

CONCLUSIONS

Evidence regarding the efficacy of DBT in addressing SUD has shown that dialectical behavior therapy can be effective in its treatment. This may be because DBT has an integrative transdiagnostic approach that allows understanding and addressing substance use from different perspectives, combining cognitive-behavioral, mindfulness and radical acceptance strategies. In addition, skills training provides individuals with tools that they can apply in different contexts, increasing their quality of life.

A possible limitation in the Latin American context is that DBT intervention involves higher costs than others, however, there are fewer hospital admissions, improvement in psychopathological symptoms, improvement in quality of life and fewer relapses, generating lower expenses after its application.⁵⁷

Finally, it should be considered that the strategies of this treatment are oriented to people who present SUD and emotional dysregulation, so that those individuals who share these two conditions may benefit more.

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