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# Structural Family Therapy in Treating Ecuadorian Adolescents with Substance Use Disorder

**Proyecto de Investigación**

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**Structural Family Therapy in Treating Ecuadorian Adolescents with Substance Use Disorder**

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# RESUMEN

**Antecedentes:** SAMHSA (2015), define el trastorno por consumo de sustancias como el uso recurrente de alcohol y/o drogas que causan deterioro clínicamente significativo, incluyendo problemas de salud, incapacidad y falta de cumplimiento de responsabilidades en el trabajo y en casa (SAMHSA, 2015). Diversas investigaciones han descubierto que la terapia familiar estructural puede ser eficaz para tratar a los adictos y a sus familias (Stanton y Todd, 1979; Coletti, 1998). Este estudio se centra en proporcionar terapia familiar estructural para tratar adolescentes y a sus familias, para analizar el efecto sobre el proceso de recuperación. **Metodología:** La muestra incluye a 50 adolescentes diagnosticados con trastorno por consumo de sustancias con un grado severo, junto con 3-4 miembros de la familia. Los participantes fueron asignados aleatoriamente a un grupo experimental (terapia familiar estructural) y grupo de control. Ambos fueron evaluados con el *DSM-5* antes y después de los 90 días de intervención. **Resultados:** Basándose en la revisión literaria, se espera que la terapia familiar estructural sea eficaz para el tratamiento de adolescentes que sufren de este trastorno. El grupo experimental podría mostrar recuperación en el funcionamiento psicológico y físico, con una disminución de los síntomas endosados e indicar un nivel de severidad inferior (Asociación Americana de Psiquiatría, 2014). **Conclusiones:** La terapia familiar estructural tiene un efecto positivo en el proceso de recuperación en adolescentes diagnosticados con trastorno por consumo de sustancias y sus familias.

*Palabras clave:* terapia familiar estructural, trastorno por consumo de sustancias, *DSM-5*, adolescentes ecuatorianos, miembros de la familia, proceso de recuperación.

# ABSTRACT

**Background:** The Substance Abuse and Mental Health Services Administration (2015), defines substance use disorder as the recurrent use of alcohol and/or drugs cause clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home (SAMHSA, 2015). Multiple studies have discovered that structural family therapy can be effective for treating addicts and their families (Stanton and Todd, 1979; Coletti, 1998). This study focuses in providing structural family therapy to treat adolescents and their families, to analyze its effect on the recovering process. **Methodology**: The sample includes 50 adolescents diagnosed with substance use disorder with a severe level, along with 3-4 family members. Participants were randomly assigned to an experimental (structural family therapy) and control group. Both were assessed with the *DSM-5* diagnostic criteria before and after the 90-day intervention. **Results:** Based on the literature review, it is hopeful that structural family therapy is effective for treating adolescents suffering from substance use disorder. The experimental group might show improvement in their psychological and physical functioning, showing a decrease of the symptoms endorsed and having an inferior level of severity (American Psychiatric Association, 2014). **Conclusions:** Structural family therapy has a positive effect in the recovery process of adolescents diagnosed with substance use disorder and their families.

*Key words***:** structural family therapy, substance use disorder, *DSM-5,* Ecuadorian adolescents, family members, recovery process.

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# INTRODUCTION

The Substance Abuse and Mental Health Services Administration (SAMHSA) (2015), defines substance use disorder as the recurrent use of alcohol and/or drugs cause clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home. Adolescence is a period of high vulnerability to drug abuse and other risk taking behaviors. Youths that start using at an early age, 12-15 years or younger, are most likely to become addicted. For these individuals who build their lives around substance, the immoderate use of illicit drugs impairs their everyday functioning (SAMHSA, 2015). The National Institute on Drug Abuse (NIDA) (2000), emphasizes that drug abuse is a major public health problem that impacts society on multiple levels. Directly or indirectly, drug abuse and addiction impacts the individual, family and community (NIDA, 2000). The study *Illicit drug use in the past year* done by SAMHSA (2008), presents different ethnic and age groups and their rates of drug use. Results include White, Hispanic, Multiracial, and Native Americans from 18-25 years old as having the highest rates of drug use (SAMHSA, 2008).

A meta-analysis done by Hutchison suggest that the treatment helps only about 17% to 35% of individuals with substance use disorder abstain for up to one year (Hutchison, 2010). Most of the treatment is done individually, but it is erroneous to think that the only one affected by the disease is the addict. Therefore, Villaseñor (2001) believes that addiction should be described and treated as a family problem. Not only for how the family is affected, but the way in which it participates, in the maintenance of behaviors considered part of the disease (Villaseñor, 2001). Family therapy has shown positive result in the addict's recovery. As claimed

by Maurizio Coletti there is a remarkable improvement of 65.38% against a 26.92% unchanged after treatment in families dealt with a structural model (Coletti, 1998).

This study proposes structural family therapy for treating Ecuadorian adolescents with substance use disorder who belong to a middle class socioeconomic status. McGoldrick, Pearce & Giordano state that therapists should consider the unique subculture of the family to understand the overall context (McGoldrick, Pearce & Giordano, 2005). Therefore, it is important to evaluate the Ecuadorian family structure for treatment, because there is no relevant research about structural family therapy that has been applied to adolescents that suffer from substance use disorder. The importance of this study lies on how and to what extent structural family therapy influences the treatment of adolescents with substance use disorder (*DSM-5* diagnostic criteria), for it to be applied to an Ecuadorian family context.

Following, the literature review of substance use disorder and structural family therapy. Next, the relationship between structural family therapy and substance use disorder diagnostic criteria will be discussed. Then, the methodology used to conduct this research. Finally, the results and conclusions will be presented and discussed.

# PROBLEM INTRODUCTION

Focusing in the Ecuadorian population, Guillermo Lasso (2016) one of the presidential candidate for this year, states that there are no public rehabilitation centers for drug addiction. Guillermo Lasso comments that the most affected families are from a middle-low socioeconomic status, and parents are desperate because they don’t have the economic resources and there are no gratuitous centers for adolescent treatment (Lasso, 2016). Due to the limited resource of addiction treatment in Ecuador, the presented study proposes structural family therapy to treat

these families which includes adolescents diagnosed with the *DSM-5* diagnostic criteria for substance use disorder, which entails to a middle class socioeconomic status (SES). Regarding Stanton and Todd, structural family therapy can be effective for treating addicts and their families (Stanton and Todd, 1979). More recent studies, have shown that structural family therapy can be effective when addressing African American and Latino youth to reduce the likelihood to initiate drug use (Nichols, 2013).

## Background

### The history of substance use disorder and structural family therapy.

As stated by the American Psychiatric Association (APA), the diagnostic criteria for substance use disorder in the Diagnostic and Statistical Manual of Mental Disorders fifth edition (*DSM-5)* includes impaired control, the continued use of substance despite negative social, occupational, health consequences and risky use, as well as evidence of tolerance or withdrawal. Generally, two or more symptoms should be presented over the course of a year to receive the diagnosis of substance use disorder. Depending on the specific drug choice the disorder is addressed separately (American Psychiatric Association, 2014). For example, if a person receives the diagnosis of substance use disorder and the drug choice is alcohol, the disorder would be specifically: alcohol use disorder (Nolen-Hoeksema, S. 2013).

The study conducted by Hasin and colleagues (2012), explains the adjustment of the *DSM-5* diagnostic criteria for addiction. They noted that the *DSM-5* was combined into substance abuse and dependence into one diagnosis; substance use disorder. Researchers explained that this adjustment occurred because it was difficult for clinicians to distinguish between abuse and dependence. Also, because of the low reliability of the diagnosis of substance abuse (Hasin, Fenton, Beseler, Park, & Wall, 2012).

Crews, He, & Hodge (2007), define adolescence as a time that includes high levels of risk taking, exploration, novelty and sensation seeking behaviors. In fact, they found that youths have high levels of binge drinking and experimentation with other drugs. Adolescence is a serious stage for cortical development, important for establishing lifelong characteristics, that can be disrupted by alcohol and drug use (Crews, He, & Hodge, 2007). The Substance Abuse and Mental Health Services Administration (2014), conducted a study that included 21.5 million Americans in the ages of 12 years and older. From the participants 8.1% were classified with a substance use disorder, 2.6 million presented problems with both alcohol and drugs, 4.5 million had problems with drug but not alcohol, and 14.4 million had problems with alcohol only (SAMHSA, 2014).

A study made in six South American countries; including Argentina, Chile, Bolivia, Ecuador, Peru, Uruguay, state that marijuana is the most widely used drug among adolescents (Adicción a drogas en país es alta, 2009). Referring to these six countries the average drug consumption is 4.8%, compared to the 3.8% of the global average (Adicción a drogas en país es alta, 2009). An Ecuadorian national examination was made by Consejo Nacional de Control de Sustancias Estupefacientes y Psicotrópicas (CONSEP) and Observatorio Nacional de Drogas (OND) (2012), about drug consumption on students from 12 to 17 years. Results show that in Quito around a 10.83% of adolescents use regularly alcohol, and in Guayaquil about 6.75% of adolescents use regularly alcohol (CONSEP & OND, 2012).

Psychologist study the etiology of addiction through the lenses of the complex interplay of biological, psychological and social vulnerabilities (Nolen-Hoeksema, S. 2013). Lawson & Lawson (1998), in the book *Alcoholism and the family: A guide to treatment and Prevention,* review different theories of alcoholism's etiology. Researchers concluded that the numerous

hypotheses fail to show a definite, single cause. Therefore, when treating addiction, clinicians recommend to use an eclectic approach, meaning that the treatment should fit the needs of the client and should be individualized (Lawson & Lawson, 1998).

Michael Nichols in his book *Family Therapy, Concepts and Methods*, Salvador Minuchin is referred as the father of structural family therapy. The psychologists' clinical techniques have become the most widely used model in the field of family therapy (Nichols, 2008). Structural family therapy is popular due to its simplicity and concrete techniques. Harry Aponte, another influential figure in this field, in the movie; *Structural Family Therapy*, the psychologist narrates that the structural model grows with a specific population, which included families of low socio-economic status, Native Americans and Puerto Ricans (Carlson et al., 2010). Harry Aponte specifically addressed the importance of working with families that are affected by the economy and have social problems, because they are fractured and are barely holding together (Carlson et al., 2010).

Michael Nichols (2013), addresses the basic concepts applied in therapy that are; the family structure, subsystems, and boundaries. The author states that structural family therapy is remarkable because it considers the individual, family and the social context providing a clear framework for understanding and treating families. The most important theory of the approach is that every family has a structure, and this structure is revealed only when the family is in action (Nichols, 2013). Harry Aponte emphasize that the structural model is issue oriented, the therapy focuses on what is the problem on a present sense. Also, the structural model demands active technique, were the therapist mobilizes the family towards change (Carlson et al., 2010).

Lawson & Lawson (1998), explains alcoholic families as having different patterns of structure, some more common than others. These families are disengaged and lacking cohesion.

Most of the time the power structure and hierarchy are reversed (Lawson & Lawson, 1998). For example, the children acting as parents and parents not taking a responsible position. Stanton and Todd (1979), conducted a controlled study where they compared structural family therapy with a family placebo conditions and individual therapy. The study findings show symptom reduction with structural family therapy. The positive change for drug addicts and their families were better than in other conditions, and the positive effects continues six to twelve months. Investigators showed that structural family therapy can be effective for treating addicts and their family (Stanton & Todd, 1979).

Research studies that are going to be presented further on, will demonstrate the relationship between structural family therapy and Ecuadorian adolescents diagnosed with substance use disorder (*DSM-5* diagnostic criteria). Elaborating on the idea that structural family therapy is one of the most effective model to treat substance use, conduct problems and to understand troubled families, this study proposes to treat Ecuadorian adolescents who are diagnosed with the *DSM-5* diagnostic criteria for substance use disorder, analyzing how and to what extent therapy is effective. The study will reflect a general model of how Ecuadorian families are structured, their subsystems, and boundary making. This way a structural family therapy model could be applied to treat substance use disorder in a specific culture.

## The Problem

After a meticulous research of Ecuadorian articles about structural family therapy, there is no research that has been completed to treat adolescents who suffer from substance use disorder using a structural family therapy. Subsequently, there is no scientific research of how and to what extent structural family therapy can be effective in treating addiction of Ecuadorian adolescents and their families. Starting from the idea that family structure is different in all

cultures, it should be unveiled how the family structure in Ecuadorian families, boundary making, and hierarchies are currently in place. This study aims to apply structural family therapy to treat this disorder, and explore the effectiveness for symptom reduction and recovery.

## Research Question

*How and to what extent structural family therapy influences the treatment of Ecuadorian adolescent diagnosed with the DSM-5 diagnostic criteria of substance use disorder?*

### Study significance.

In Ecuador, there is limited research about a percentage of adolescents that suffer from a substance use disorder. Despite the lack of information, there is research done by CONSEP and OND (2012), about drug consumption on students from 12 to 17 years. Findings show that in Quito, a 10.83% of adolescent use regularly alcohol, and in Guayaquil a 6.75% of adolescent use regularly alcohol (CONSEP & OND, 2012). Considering adolescents that start using at an early age 12-15 or younger are more likely to become addicted, it can be stated that there is a high percentage of Ecuadorian adolescents that regularly use alcohol that will end up in the destructive path of addiction. In Ecuador, there is no research that tries to apply a therapy targeting the addicts and the family. Therefore, this study will be the first to use structural family therapy model for the treatment of adolescents with substance use disorder. The research study aims to show the effectiveness of the psychotherapy to reduce chances of relapse and help with recovery.

## Summary

Elaborating on the above, this research will study the effect of structural family therapy in treating adolescents with substance use disorder in the city of Quito, Ecuador. The investigation is important because it expands the understanding of how we can help these people

and how we can reduce the prevalence of drug consumption in the country. Further on, a literary review will be presented, where there is going to be a thorough explanation about substance use disorder and structural family therapy techniques. The content will be followed by the explanation of the methodology used for the research, the data analysis, conclusion and discussion.

# Literature review

## Literature review

### References.

The information used for the literature review of this research comes from scientific articles, popular books, peer reviewed studies, movies and newspapers. Most of the information obtained is from data bases like, the American Psychiatric Association, EBSCO Information Services, Proquest, National Institute on Drug Abuse, and The Substance Abuse and Mental Health Services Administration. The key words used to find significant information are: “psychoactive drugs”, “substance use disorder”, “structural family therapy”, and “effectiveness of structural family therapy in the treatment of adolescents with substance use disorder”.

## Format of the literature review

There is going to be a literature review defining psychopathology, etiology of substance use, the diagnostic criteria for substance use disorder and structural family therapy. Moreover, the effectiveness of the therapeutic intervention in the treatment of addiction will be analyzed. For achieving these objectives, the review is going to be done by topics.

**Defining psychopathology.**

Defining psychopathology is challenging because of the difficult line between normal or abnormal psychology. In the book *(Ab)normal psychology* by Nolen-Hoeksema (2013), defining the line between what is normal and abnormal it is shown as an intricate process. The psychologist identifies that a persons' life is guided by thoughts, feelings and behaviors that serve an important role for achieving goals, functioning, and carry oneself in different situations. Nolen-Hoeksema understands that sometimes things go the opposite way; where thoughts, feelings and behaviors makes the individual upset or uncomfortable and their functioning is disrupted. These problematic thoughts, feelings and behaviors are the ones that vary from normal to abnormal. The black or white thinking is troubling, it is not that simple, there are many factors that should be questioned before trying to draw a line in-between what is normal or abnormal (Nolen-Hoeksema, 2013).

The work of Nolen-Hoeksema (2013), reveals "the four Ds of abnormality" as a helpful guideline to be used for assessing abnormality. The four dimensions are: dysfunction, distress, deviance and dangerousness. Dysfunction is when behaviors, thoughts and feelings interfere with the person's ability to function in daily life. Distress is defined as behaviors and feelings that cause pain to the individual or others around. The third is deviance, which is characterized by highly rare behaviors. Finally, dangerousness is defined by behaviors which can be harmful to self or others (Nolen-Hoeksema, 2013, p.6-7). Examples of the four Ds of abnormality are going to be provided considering an individual diagnosed with substance use disorder. Dysfunctional behaviors can be presented when an individual is intoxicated, unable to go to work, or pay attention in class. Distress might not be experienced directly by the individual, but others around can experience it. An example of this is the lies and promises of a drunk individual causing

distress to their partner. For deviance, a person can have rare behaviors like becoming socially awkward, hiding and become isolated. An example for dangerousness, are behaviors that can be manifested with physical violence, like punching someone or using insulting words when intoxicated. It can also be driving under the influence.

The National Alliance on Mental Illness (2016), defines mental illness as a condition that affects an individual's behavior, thoughts and feelings that are pathological or abnormal. This might imply that there is a disease process where a categorical diagnostics system is applied (NAMI, 2016; Nolen-Hoeksema, 2013). However, Nolen-Hoeksema recognizes that the pathology does not show up on a biological test. Trying to define mental disorders is changeling because it is a collection of problems in thinking or cognition, in emotional responses or the lack of emotional regulation, and in social behavior in which not all people exhibit symptoms of a disorder in the same way (Nolen-Hoeksema, 2013).

The excessive consumption of drugs might reflect the four Ds of abnormality. However, by having a dimensional thinking that involves the context and circumstances surrounding the behavior, will help to understand the referred disorder and diagnosis. Up next, the causation or origin of drug consumption will be presented. Then, substance use disorder will be studied thoroughly.

**Etiology.**

It is evident that drug addiction has multiple causes or etiologies with a matrix of genetic, social, psychological and environmental factors can cause an individual to develop drug problems. In the book *Drugs in perspective: A personalized look at substance use and abuse* by Richard Fields (2001), this question is answered: “Why do people use drugs?” People use drugs because there is an innate drive that humans have, to alter consciousness (p. 2). Fields explains

the four primary drives: hunger, thirst, sex, and survival drive; which are likely the drive for altering consciousness. The use of drugs is often explained by Fields as an attempt to alleviate feelings of boredom, sadness, pain, fatigue, etc. Drug use can be described as a passive activity in that the individual takes in the substance and waits for the physiological reaction (Fields, 2001).

Inaba, Cohen, & Holstein (2007), reveal the basic views of addiction: the addictive disease model which emphasizes on genes, the behavioral/environmental model that considers the influence of environment and behavior, the academic model that embodies biological adaptations, and the diathesis-stress model that is an integrative conception of addiction (Inaba, Cohen, & Holstein, 2007). For Richard Fields (2001), the most widely known model is the disease model of addiction. In 1957, the American Medical Association recognized alcoholism as a disease model based on three criteria: first, that there is a known cause; second, that with time symptoms get worse; third, that there are known outcomes (Fields, 2001).

The disease model of alcoholism is supported with adoption and twin studies. These studies establish the significance of a genetic factor predisposing and individual to addiction. Examiners like L.Kaij (1960), Z. Hrubec and G.S Omenn (1981), demonstrated that identical twins show a higher rate of alcoholism than fraternal twins (Kaij, 1960; Hrubec, Omenn, 1981). Whereas, C.R Cloningher, M. Bohman and S. Sigvardsson (1981), conducted an adoption study where they confirmed that sons of alcoholics are four times more likely to become alcoholics than are sons of nonalcoholic. Also, that sons of alcoholic biological parent are more likely to become an addict on an early age (Cloningher, Bohman and Sigvardsson, 1981).

In the next section, there is going to be more information about why addiction can be considered a disease due to how the brain changes. Further on, with the presented research a

possible treatment will be considered that can help individuals and their families recover from addiction.

**Addiction pathway and survival/reinforcement circuit.**

The National Institute on Drug Abuse (NIDA), defines addiction as a chronic disease characterized by drug seeking and compulsive consumption. For most people the initial decision to take drugs is voluntary, but the repeated use can lead to brain alterations (NIDA, 2016). Despite the drug choice, substances have a powerful effect on the brain by being rewarding (Nolen-Hoeksema, 2013). Inaba et al. (2007), explains that drugs are administered in many ways, they can be inhaled, injected, absorbed by the mucous membrane, swallowed, and absorbed by the skin. Once they are in the body they are distributed through the circulatory system until they reach the brain, where drugs will have their greatest effect (Inaba et al., 2007).

Tomkins and Sellers (2001), suggests that psychoactive drugs affect two parts of the brain: the old brain, designated as the primitive/survival area, and the new brain, responsible of common sense/thinking. Examiners indicate that addiction pathway has two parts: a survival/reinforcement circuit with a “go switch” and a control circuit with a “stop switch” (Tomkins and Sellers, 2001). In the book *the power of reinforcement* written by Flora, S. R. (2004), the survival/reinforcement circuit is referred as the Reward/Reinforcement Circuit. The circuit is essential because it tells the individual to repeat a survival related action (Flora, 2004). Inaba and his colleagues (2007), explains that the nucleus *accumbens septi* know as the brains “go switch” and the amygdala the emotional center of the old brain, are structures important in the compulsion of addiction. In the addict’s brain the problem occurs when the “go switch” is overactive and the “stop switch”, located in the orbital frontal cortex of the brain’s control circuit that normally shut downs cravings, becomes dysfunctional (Inaba et al., 2007). This means that

the addict feels an intense need to continue to use. Psychologist report that in many addicts "the old brain rules" because the "go" circuit of the addiction pathway reacts more quickly than the "stop" circuit. This could be explained because humans are strongly driven by intense emotional memories, urges and desires part of the old brain. Though the new brain is doomed because it takes a powerful, conscious effort to ignore such strong desires and cravings (Flora, 2004; Inaba et al., 2007. ch2. p.10).

Understanding how psychoactive drugs affect the brain, explains the impairment in thinking patterns, feelings, mood swings, interpersonal interaction, daily functioning and maladaptive behaviors that prevent people from adapting or coping with the anxiety and stresses of life (Nolen-Hoeksema, 2013; Maladaptive behavior examples, 2016). In the following section, substance use disorder and its diagnosis will be explained.

**Substance use disorder.**

In the book (*Ab)normal Psychology* by Nolen-Hoeksema (2013), it is narrated that throughout history there are four main conditions that are seen crucial in defining individuals' use of substances: intoxication, withdrawal, abuse and dependence. First, substance intoxication is defined as a set of behavioral and psychological effects of a substance on the central nervous system. The author states that intoxication happens soon after people have ingested a psychoactive drug. Interestingly, the more they ingest the more intoxicated they become. Intoxication decreases as the amount of the substance in the blood or tissue which is eliminated. The symptoms of intoxication vary depending on what substance is taken, the amount taken and when, the individuals' tolerance, and the context (Nolen-Hoeksema, S., 2013). Symptoms can persist for hours or days after the substance is no longer detectable in the body (Virani, Bezchlybnik-Butler & Jeffries, 2009). Secondly, Nolen-Hoeksema defines substance withdrawal

as a set of physiological and behavioral symptoms that result when individuals who have been using substance for prolonged periods of time stop or reduce their use. The experienced symptoms of withdrawal are typically the opposite of those of intoxication (Nolen-Hoeksema, S., 2013).

The *DSM-IV* recognizes between substance abuse and substance dependence, both as part of substance-related disorders (American Psychiatric Association, 2000). The diagnosis of substance abuse was given when an individual's recurrent use of a substance resulted harmful in four categories. First, the recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home. Second, the recurrent use in situations in which use is physically hazardous. Third, recurrent substance-related problems. Fourth, continued substance use despite having persistent or recurrent social or interpersonal problems caused by the effects of the substance (American Psychiatric Association, 2000). The *DSM-IV* diagnosis of substance abuse required that the individual show repeated problems in at least one of these categories within a 12-month period (Perkinson, 1997). The diagnosis of substance dependence in the *DSM-IV* was also referred as drug addiction. People that are addicted to or dependent on, a substance often show tolerance (Nolen-Hoeksema, S., 2013). Tolerance is a condition of experiencing less and less effect from the same dose of a substance (Perkinson, 1997). Meaning that people need more and more of the substance to achieve desired effect.

The *DSM-5* combined substance abuse and dependence into one diagnosis, substance use disorder (American Psychiatric Association, 2014). Hasin and colleagues (2012), noted that in the *DSM-5* this adjustment was done because it was difficult for clinicians to distinguish between abuse and dependence. Also, because of the low reliability of the diagnosis of substance abuse (Hasin et al., 2012).

A study done by Agrawal, Heath & Lynskey (2011), was applied to a nationally representative sample of the United States with the purpose of showing the effects of change from the *DSM-IV* to the *DSM-5* criteria for the diagnosis of alcohol related disorders. Researchers found that the 12-month prevalence of alcohol use disorder (10.8%) based on the *DSM-5* criteria was quite like the combined 12-month prevalence (9.7%) of *DSM-IV* diagnoses of alcohol abuse or alcohol dependence (Agrawal, Heath & Lynskey, 2011). Findings suggested that the combined prevalence of abuse and dependence diagnoses for each substance abuse on the *DSM-IV* criteria can be used to estimate the prevalence of substance use disorder for each substance (Agrawal et al., 2011). In the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (2014), the revised chapter of "Substance-Related and Addictive Disorders" is divided in two: Substance Use Disorder and Substance-Induce Disorder. For this paper, the only disorder that is going to be considered is substance use disorder. The *DSM-5* diagnostic criteria for substance use disorder includes impaired control, the continued use of substance despite negative social, occupational and health consequences, risky use, as well as evidence of tolerance or withdrawal (American Psychiatric Association, 2014).

Each specific substance is addressed as a separate disorder, but nearly all substances are diagnosed based on the same overarching criteria that is presented below (American Psychiatric Association, 2014):

A. Impaired control that may be evidenced in these different ways:

1. The substance is taken in increasingly larger amounts or over a long period than originally intended.
2. The substance users crave the use of the substance.
3. The substance user feels an ongoing desire to cut down or control substance abuse.

4. Much time is spent in obtaining, using and recovering from the substance.

B. Social impairment is defined as the following:

5. The ongoing use of the substance often result in an inability to meet responsibilities at home, work, or school.

6. Important social, work-related, or recreational activities are abandoned or cut back because of substance use.

7. Ongoing substance use despite recurring social or relationship difficulties caused or made worse by the effects of the substance.

C. Risky use is defined as the following:

8. Ongoing substance use in physically dangerous situations such as driving a car or operating machinery.

9. Substance use continues despite the awareness of ongoing physical or psychological problems that have likely arisen or been made worse by the substance.

D. Pharmacological criteria is defined as the following:

10. Changes in the substance user's tolerance, indicated by the need for increased amounts of the substance to achieve the desire effect or by diminished experience of intoxication over time with the same amount of the substance.

11. Withdrawal is demonstrated by the characteristic withdrawal symptoms of the substance and/or taking the same or similar substance to relieve withdrawal symptoms.

The *Diagnostic and Statistical Manual of Mental Disorders* fifth edition (2014), indicates that individuals must show two or more of the symptoms associated with substance use disorder over the course of a year. Also, substance use disorder is defined with a level of severity that

depends on the number of symptom criteria endorsed (American Psychiatric Association, 2014; SAMHSA, 2015). The *DSM-5* explain that the mild severity considers two to three symptoms, moderate severity from four to five symptoms, and severe severity from six to more symptoms. The diagnosis should be supplemented with a specifier. Clinician specifies if the patient is in early remission or sustained remission. Early remission means that it has not met any symptoms of the criteria for at least 3 months but without 12 months (except for cravings), and in sustained remission it has not met any symptoms of the criteria for 12 months or more (except for cravings) (American Psychiatric Association, 2014). Additionally, there is a control environment specifier, which is used when the individual has a restricted access to substance due to its environment. More importantly, the clinician should apply the appropriate code to the class of substance and write the name of the specific substance (American Psychiatric Association, 2014).

Substance-Related and Addictive Disorders include ten psychoactive drugs, which are going to be revised. In the book *Uppers, downers, all arounders* (2007), psychoactive drugs are defined as any substance that directly alters the normal functioning of the central nervous system (CNS). The definition also includes any behavior that directly activates the brain's alcohol and drug addiction pathways (Inaba et al., 2007). The book classifies drugs depending on their effects: stimulants (uppers), depressants (downers), and psychedelics (all arounders). Uppers refer to any psychoactive drug that stimulates the CNS (Inaba et al., 2007). For example, cocaine, amphetamines, plant stimulants and others. Tomkins & Sellers describe that the physical effect of stimulants when taken in small doses can result in insomnia, energized muscle, increase heart rate and decreased appetite (Tomkins & Sellers, 2001). Nolen-Hoeksema explain that when the drug is taken in large amount they can cause heart, blood vessels and seizure

problems (Nolen-Hoeksema, S., 2013). Inaba and his partners, address the mental and emotional effects, of strong stimulants that increase confidence and excitement causing a rush or high. The prolonged use of stimulants causes intense anxiety, paranoia and mental confusion (Inaba et al., 2007).

Secondly, the book written by Inaba, Cohen, & Holstein (2007), explains that there are four categories of CNS depressants. The first category is opioids and opiates. The most popular from this category are opium, heroin, oxycodone and methadone. The second category is sedative-hypnotics, such as benzodiazepines (Xanax, ®Valium). Alcohol belongs to the third category. At last, the fourth category includes relaxants, sedatives and antihistamines. The physical effect for downers when taken in small doses is that they depress the CNS, they slow heart rate, respiration and induce sleep, and most important they reduce pain (Inaba et al., 2007). Excessive drinking can cause slur speech and digestive problems (Nolen-Hoeksema, S., 2013).

If downers are taken in large amounts or they are mixed with other depressants they can cause dangerous respiratory depression and coma. Regarding the mental and emotional effects, downers when taken in small doses act like stimulants, because they lower inhibition, meaning that free behavior is induced. The excessive use could lead to psychological and physiological dependence (Inaba et al., 2007).

Thirdly, psychedelics are substances that can distort perception, they are extracted from plants or synthesized (Inaba et al., 2007). There are five classes, however the most common are; LSD, MDMA, marijuana and PCP (Nolen-Hoeksema, S., 2013). It is difficult to describe a similar physical effect when referring to the consumption of psychedelics. For example, most hallucinogenic plants cause nausea and dizziness, marijuana increases appetite and makes the eye bloodshot (Inaba et al., 2007). The challenging part is that MDMA and LSD act like

stimulants, LSD raise blood pressure and causes sweating (Nolen-Hoeksema, S., 2013). Analyzing the mental and emotional effect, all arounders distort sensory messages to and from the brain stem. This means that many of the external stimuli are intensified or altered, and can trigger hallucinations and distorted thinking (Nolen-Hoeksema, S., 2013).

Alvanzo and his colleagues (2011), revealed that the earlier the age of onset of drinking, the more likely individuals are to develop a substance-related and addictive disorder (Alvanzo, Storr, La Flair, Green, & Wagner, 2011). Studies done by Grucza, Bucholz, Rice & Bierut (2008), suggest that the use of alcohol and the prevalence of alcohol related problems have been increasing among adolescents in the past years (Grucza, Bucholz, Rice & Bierut, 2008). The National Institute on Drug Abuse (2011), informs that in 2009 there were nearly 4.6 million drug-related ED visits nationwide. Remarkably about 45% involved drug abuse and the 50% were attributed to adverse reaction to pharmaceuticals taken as prescribed. Breaking down the 45% of drug abuse; 27.1% involve nonmedical use of pharmaceuticals, 21.2% representative of illicit drugs, 14.3% involve alcohol in combination with other drugs. From the clear majority, patients aged 20 or younger accounted for 19.1% (877,802 visits) of all drug related, and about half of these visits involved drug abuse. A follow up study demonstrated that marijuana use was the highest among adolescents from 18 to 20 years (NIDA, 2011).

Other important data from the Center for Behavioral Health Statistics and Quality (2015), is a national survey on drug use done in 2014 which shows that approximately more than half 52.7% of Americans between 12-year-old and older reported being current drinker of alcohol. Of those 1766.7 million alcohol users, around 17 million have an alcohol use disorder (Center for Behavioral Health Statistics and Quality, 2015). Although in the United States it is illegal to use alcohol under 21 years SAMHSA (2015), identifies that many Americans begin drinking at an

early age, about 24% of eight graders and 64% of twelfth graders used alcohol (SAMHSA, 2015). Sara Bellum (2009), show that 22% of twelfth graders report having engaged in binge drinking, defined as drinking 4 or 5 (more) drinks in a couple of hours (Sara Bellum, 2009). A study done by Kain (2009), found that binge drinking is very common among adolescents, about a 55% of high-school seniors have reported to have exposure to large amounts of alcohol. Referring to this population they are at a highly risk of jeopardizing the integrity of the brain's white matter. This part of the brain is critical for communication of information within the brain (Kain, 2009).

Rodrigo Vélez director of CONSEP, states that drug consumption in adolescents has decreased in Ecuador in the past years, although ten thousand need psychotherapy due to their alcohol addiction. The study was applied to thirty thousand students between 12 and 17 years of age. Vélez stressed that the decline in consumption of illicit drugs are due to the governments and municipal ordinances and awareness programs. Furthermore, findings suggest that the onset age consumption is at a later age, the average age in 2005 and 2008 was around 13.8 years, now it is 14.5 years of age at onset. CONSEP (2012) revealed that around the 12% of adolescents said that the most common place for drug use are their homes and 12.4% in entertainment venues (CONSEP, 2012).

Referring to the study done to Ecuadorian adolescents it might be inferred that they can use drugs in their homes due to the ineffective boundaries within the family structure. Due to this troubling structure, adolescents are exposed to a compulsive use. There is a high percentage of adolescents in need of treatment (CONSEP, 2012). Most of the treatment is done individually by the addict. Thou, it is erroneous to think that the only one affected by the disease is the addict. Therefore, addiction should be described and treated as a family problem. Further on, structural

family therapy is going to be revised as a psychotherapy that helps the treatment of addiction and helps to manage the disease.

**Individual versus family therapy.**

There are various reasons for conducting psychotherapy privately, but there are equally strong claims for family therapy. As reported by Michael P. Nichols (2008), we perceive ourselves as separate entities, recognizing the influence of others but having difficulty in seeing that we are part of something bigger than ourselves. Nichols states that we are fixed in a relationships network; being social animals. The author suggests, that both individual psychotherapy and family therapy offer treatment and a way of understanding human behavior (Nichols, 2008).

Independently, Nichols clarifies that individual therapy focusses on helping individuals face their fears and learn to accept themselves. Therapists that have an individual psychotherapy approach understand the importance of family in shaping a person's personality, but it is assumed that these influences are internalized becoming the leading force that guides behavior. On the other hand, family therapists believe that the dominant force of life is located externally, in this case in the family. Therapy goal is to change the organization of the family, by altering the life of its members (Nichols, 2008). Michael P. Nichols states that deciding which approach (individual or family therapy) is more effective, one should understand human nature. The psychologist explains that psychotherapy can be effective either by concentrating on the individual or in the family's insight. Therefore, both perspectives are beneficial for the full understanding of individuals and their problems. Nichols expresses that for being able to understand someone it is necessary to consider their social context, particularly the family.

Family therapists proved that family is more than a collection of its parts, it is “an organic whole whose parts function in a way that transcends their separate characteristics” (Nichols, 2008, p. 6).

Considering Nichols research there are several approaches of family therapy that have been effective in the treatment of adolescent’s substance abuse (Nichols, 2008). Muck and his colleagues (2001), demonstrated that the family system plays an important role in the development and maintenance of adolescent substance use (Muck, Zempolich, Titus, Fishman, Godley, and Schwebel, 2001). Villaseñor (2001), states that the family plays and important role not only for how the family is affected, but the way in which it participates by maintaining behaviors considered part of the disease, called enabling (Villaseñor, 2001). For Perkinson, enabling is a term used when in the relationship between the addict and the codependent parent, the parent may attempt to shield the addict from negative consequences of their behavior by calling in sick, cleaning their mess or making excuses that prevent the addict to take responsibility over their actions (Perkinson, 1997). The codependent parent is not helping the addict, because enabling prevents the addict from learning their disease and that they are in need for help (Zelvin, 2004). Authors Williams & Chang (2000), admits that family therapy is more effective than: individual therapy, twelve-step program, therapeutic communities and other programs (Williams & Chang, 2000).

For this research, structural family therapy is the approach that is going to be evaluated. Later, it will be considered the treatments effectiveness in treating adolescents with substance use disorder.

**Structural family therapy.**

Lawson and Lawson (1998), justifies that structural family therapy developed during the 1960s by Salvador Minuchin. On the report of Lawson and Lawson (1998), Minuchin’s theory

grew by working with delinquents, the poor and multi- problem families. Due to the social complexity of these families, Munuchin developed a set of concrete and action-oriented techniques. Meaning that families would have to confront their problems in the therapy session, so the therapist would see what was happening in the family and establish its organization and structure (Lawson & Lawson, 1998). Vetere (2001), accounts Minuchin's work by enhancing that the therapy grew upon the interest of developing systematic ways of conceptualizing human distress and relationship dilemmas, by working with those natural systems and relationships (Vetere, 2001).

In the book *Family Therapy, Concepts and Methods* written by Michael P. Nichols (2008), it is described that structural family therapy recognizes the overall organization that supports and maintain interactions within the family. This approach considers that families are organized in subsystems with boundaries, regulating the contact family members have with each other. As important, the approach encourages family members to deal directly with each other in sessions, leaving the therapist to observe and modify the family's interactions. The approach provides a "blueprint" for organizing treatment strategies. Referring to Nichols (2008), there are three essential constructs that define structural family therapy: structure, subsystem and boundaries (Nichols, 2008).

Vetere (2001), states that the family structure refers to the organizational characteristics of the family, the roles, rules and sequences of behavior. In other words, how the family is organized into subsystems whose interactions are regulated by interpersonal boundaries. The authors explain that for understanding the family's structure, the therapist must look beyond their interactions to the organizational framework in which they are manifested. Referring to Vetere's insight, when the structure of the relational group changes, the positions of members in the group

is also changed. The system can be modified due to the different patterns of authority, communication and interactions presented by the members. Emphasizing on Vetere (2001), the family is a psychosocial system, part of a wider social system, which functions through transactional patterns. These transactions establish patterns of how, when and to whom to relate, and they reinforce the system (Vetere, 2001).

For Michael P. Nichols (2008), families are separated into subsystems, grounded on gender, generation, and function. The author states that subsystems are units based on the family members' functionality. These subsystems are made up of members on a temporary or more permanent basis. Thus, family members can be part of one or more subsystems, in which their roles vary (Nichols, 2008). Commonly, subsystems are organized hierarchically, where power is regulated and stablished within and between the family members (Vetere, 2001). Moreover, Vetere (2001) defines boundaries as the rules of the subsystem that delineate who participates and how. The investigator explains that the purpose of boundaries is to protect the differentiation of the subsystem (Vetere, 2001). In his book, Michael P. Nichols defines boundaries as an invisible barrier that regulate contact with others. Likewise, the author expresses that interpersonal boundaries vary from rigid to diffuse. Rigid boundaries are restrictive and permit limited contact with outside subsystems, resulting in disengagement. Disengaged subsystems are independent but end in isolation. A disengaged family is lacking of affection and support, and only after a long time experiencing stress they would be looking for help. Analyzing enmeshed subsystems, they are characterized by experiencing too much closeness which results in interdependence, lacking of initiative (Nichols, 2008).

Regarding investigation done by Miller (2011), a family is functional or dysfunctional based on its ability to adapt to numerous stressors. It should be pointed out, that a family

structure goes through a process of development and constant struggles, but the family must learn to accommodate to each other's needs and new styles of interaction (Miller, 2011). As reported by Michael P. Nichols (2008), the little whereabouts might be accomplished easily only after intense battle, transforming families into healthy ones where they learn to accommodate to changed circumstances (Nichols, 2008). In contrast, Lawson & Lawson (1998), states that dysfunction happens when rigid boundaries create isolation and discourage family communication. They are dysfunctional when disengaged boundaries don't have a clear area of authority and responsibility. Authors quoted Minuchin when he said that "dysfunction in the family occurs because there are no clear levels of authority and power", there is confusion in the subsystem functions, and rigid or disengaged boundaries exist (Lawson & Lawson, 1998).

One of the therapy goals reported by Lawson & Lawson (1998), is to alter the family structure so that the family can solve its own problems (Lawson & Lawson, 1998). Nichols & Schwartz (1995), emphasize that the therapist should alters boundaries and realigns subsystems to change behavior and each family member experience (Nichols & Schwartz, 1995). Michael P. Nichols (2008), states that there are common problems and typical structural goals. For example, the adjustment of an effective hierarchy, were parents are in charge and they don't relate to their children as equals. Another common goal is to help parent function together. Considering enmeshed families, the goal is to distinguish individuals and subsystems by establishing strong boundaries around them. The goal with disengaged families is to increase contact by making boundaries more permeable (Nichols, 2008).

In *Family Therapy Techniques* written by Minuchin and Fishman (1981), there are three main phases in the process of structural family therapy. First, the therapist joins the family as a director and leader of the therapy process. Second, map the family structure, it is suggested to

use Minuchin's system of symbols to graphically map out the family structure, boundaries and interactions. Third, intervene to change and transform the family structure. The program can be described as simple due to the clear plan it follows, but there is more to it since there are endless variety of family patterns (Minuchin and Fishman, 1981).

As believed by Michael P. Nichols (2008), when using this approach the therapy should follow these seven steps:

1. Joining and Accommodating: Therapist must disarm defenses and ease anxiety. This is achieved by building an alliance of understanding with every member of the family (Miller, 2011). The therapist must work in breaking the cycle of misunderstanding. It is important to honor the family's authority and ask simple questions. In the beginning, it will be useful to greet the family and then ask for each person's view of the problem. The therapist should show respect, and have an empathic connection.
2. Enactment: This term is defined as an interaction stimulated to observe and then change transactions that make up family structure (Miller, 2011). It is important to give each member a chance to speak. Working with enactment requires three operations. First, the therapist notices a problematic sequence. Second, the therapist initiates an enactment. Third, the therapist guides the family to modify the enactment.
3. Structural Mapping: The therapist should start with a process of active thinking and set the stage for observing the family, make hypothesis of the interaction (Nichols, 2008). On later sessions, the hypothesis must be revised and refined. Structural assessments consider both, the problem the family presents and the structural dynamic they display. It is important to include all members.

4. Highlighting and Modifying Interactions: This step is all about modifying patterns. This may require forceful intervention, also called intensity. To achieve intensity; selective regulation of affect, repetition, and duration. Tone, volume, and choice of words can also be used. Empathy is important to help the family to "get beneath the surface of their shelter" (Nichols, 2008, p. 135). Modifying interactions alter the direction of the communication flow.
5. Boundary Making: Strengthen boundaries, with the purpose of making new and healthy ones for each member. Intervene to challenge conflict avoidance and to block detouring to break down walls between family members. Realign relationship between subsystems.
6. Unbalancing: The goal is to realign relationships within the subsystems.
7. Challenging Unproductive Assumptions: Challenge the way family members see things. As a therapist offer alternatives, advice and useful information.

This structural model works to aid the family in building a new structure that can adapt positively with stress. The therapy would be terminated when the family can resolve its present problems via the new structure (Nichols, 2008; Lawson & Lawson, 1998).

**Substance use disorder and structural family therapy.**

This approach is convenient when working with a family facing active addiction because there is dissonance in the overall organization of the family; which includes the family structure, subsystems and boundaries. The book *Alcoholism and the family: A guide to treatment and Prevention* by Lawson & Lawson (1998), explain that there are many different patterns of structure for alcoholic families. Although, investigators have come up with frequently seen patterns that involve disengaged family boundaries that lack structure. Interestingly, the structure

and hierarchy of alcoholic families are often reversed, there is a lack of power and leadership from part of the parents and children often fulfil their spot (Lawson & Lawson, 1998).

On the other hand, structural family therapy has been tied to a variety of studies that has demonstrated it efficacy for treating substance use disorder. Some of the strongest empirical support for structural family therapy comes from a variety of studies with psychosomatic children and young adult drug addicts. Stanton and Todd (1979), conducted a well-controlled study in which they compared family therapy with a family placebo condition and individual therapy. Remarkably, with structural family therapy there were symptom reduction, meaning that the level of positive change was more than double compared to other conditions (placebo and individual therapy). These positive effects persisted in a follow-up of six and twelve months (Stanton and Todd, 1979). Recently studies presented by Nichols (2008), have shown that this approach can be effective when addressing problem behavior, which include disruptive behavior, adolescent substance abuse, conduct disorder and other (Nichols, 2008).

Considering specific populations, Minuchin and colleagues (1967) in *Families of the Slums* demonstrates the effectiveness of family therapy in low socioeconomic families (Minuchin, Montalvo, Guerney, Rosman, and Schumer, 1967). Santisteban and partners (1997), prove that structural family therapy has been successful in reducing the likelihood that African American and Latino adolescents initiate drug use by improving maladaptive family functioning (Santisteban, Coatsworth, Perez-Vidal, Mitrani, Jean-Gilles, and Szapocznik, 1997). Robbins and collaborators (2003), reveal that by engaging and retaining families in treatment would reduce adolescent substance use and other problematic behaviors. Findings also suggested that it improved parental and family functioning (Robbins, Turner, Alexander, and Perez, 2003). Perkinson (1997), considers important that by treating the whole family system, there is less

chance for relapse, because each member in the family should accept their roles, and responsibilities. The psychologist explains that for a person recovering from addiction, relapse is continuing use of chemicals until the full biological, psychological and social disease is present. Perkinson states that therapy teaches each member to take their own decisions and have their "oxygen mask on", meaning that they should protect themselves first by setting healthy boundaries, and not trying to save anyone (Perkinson, 1997).

# METHODOLOGY AND RESEARCH DESIGN

This research is based on a question that asks how and to what extent structural family therapy influences the treatment of Ecuadorian adolescent diagnosed with the *DSM-5* diagnostic criteria for substance use disorder*?* The methodology applied is a quantitative design with a pretest-posttest.

## Methodology justification

The present study aims to explore whether structural family therapy influences the treatment of adolescents who suffer from substance use disorder. For this, it is necessary to measure through the *DSM-5* diagnostic criteria for substance use disorder the presence of the disorder with the level of severity in two instances, before and after the therapeutic intervention. Thus, measurements will be analyzed to see if there is a change before or after providing structural family therapy.

The quantitative methodology is appropriate for this research because it "uses data collection to test hypotheses, based on numerical measurement and statistical analysis to establish patterns of behavior and test theories" (Hernández, Fernández, & Baptista, 2010, p. 4). The numeric measurement will be obtained from the *DSM-5* diagnostic criteria for substance use disorder, considering the level of severity. The measurement will be applied before and after the

psychotherapy. Furthermore, this type of methodology identifies two variables; structural family therapy as the independent variable and the effect on the treatment of substance use disorder as the dependent variable. At the end of the experiment the obtained measurements will be analyzed and some conclusions are going to be made considering the stated hypotheses (Hernández, et al., 2010).

The specific type of experimental design implemented is randomized controlled trials (RCT), testing whether a therapy reduces psychopathology in individuals. RCT determines whether a cause-effect relation exist between treatment, outcomes, and its efficiency (Hernández, et al., 2010). The design element that is going to be employed is random assignment of groups such as by a chance procedure, tossing a coin. This technique will rule out the possibility that the association was caused by a third factor linked to both intervention and outcome, influencing positively to internal validity of the study.

## Research tools

For this research the *DSM-5* substance use disorder diagnostic criteria will be applied to a sample of adolescents recruited by a non-probabilistic method in the city of Quito, Ecuador. Then, 50 participants who meet the diagnostic criteria for substance use disorder with a severe level of severity (six to more symptoms) will be included, along with their 3- 4 family members. All participants will be assigned a code number to ensure privacy. The participants are randomized by tossing a coin: heads- control group; tails- experimental group (structural family therapy). Each group should have 25 voluntary clients. Participants part of the experimental group, will be exposed to 90 days of structural family therapy, following the treatment plan process from the Practice*Planners*® series considering the chemical dependence tool and eventually applied the same *DSM-5* diagnostic criteria. For the control group, participant will

have the psychotherapy after the 90 days. Both groups will be compared and analyzed before and after the therapeutic intervention.

For this study the treatment plan process will be done with the Practice*Planners*® series considering the chemical dependence tool to fulfil the documentation requirements. Professionals must justify and document their treatment plans to outside entities to be refunded for service (Jongsma Jr, Peterson, & Bruce, 2014). The treatment plan specified in the book provides all the elements necessary to develop formal treatments plans that satisfy the need of most third-party payers and state and federal agencies (Jongsma Jr, Peterson, & Bruce, 2014, p. 1). The tool for chemical dependence is applied individually to the client that suffers from substance use disorder.

The long-term objectives are: first, to accept the fact of chemical dependence and begin to actively participate in a recovery program. Second, to establish a sustained recovery, free from the use of all mood-altering substances. Third, to establish and maintain abstinence while increasing knowledge of the disease and the process of recovery. Fourth, to acquire the necessary skills to maintain long-term sobriety. Fifth, to improve quality of personal life by maintaining an ongoing abstinence. Sixth, withdraw from mood-altering substances, stabilize physically and emotionally, and then establish a supportive recovery plan (Jongsma Jr, Peterson, & Bruce, 2014, p. 47).

Considering short-term objectives there are twenty-five detailed steps that will work accordingly with structural family therapy intervention. The tool provides thirty-seven steps for the therapeutic intervention that follows each short-term objective, the manual states the short-term objective and in the section of therapeutic intervention it is described how the therapist

would do it, the test that should be administer, questions guidelines, assignments, readings, and so on (Jongsma Jr., et al., 2014).

## Participants

The randomized sample includes 50 Ecuadorian adolescent's representatives of a middle class socioeconomic status (SES). Participants self-identified their race and ethnicity, which were needed to ensure balance in the randomized conditions.

- Inclusion criteria requires at least 2 parents/caretakers and 1-2 sibling to participate. Adolescents' inclusion criteria require that they be aged 13 to 19 years and meet the diagnostic criteria for substance use disorder over the course of a year, with a severe level of severity (includes six to more symptoms).
- Adolescents are excluded if they are currently receiving treatment, present a co-occurring disorder; as depression, PTSD, psychotic symptoms, mania, bipolar disorder, suicidal or homicidal ideation, and if there are no family participation or involvement in the therapeutic intervention.

## Recruitment of participants

A randomized controlled trial is managed during the registration of participants from several sources, private and public middle class SES Ecuadorian health centers, schools, university medical centers, newspapers, radio and television. A letter is sent to invite the registered individuals to participate. The research requires at least five clinicians highly trained in structural family therapy. Recruitment involves a 3-stage process: first, referring clinicians to provide information about inclusion and exclusion criteria; second, staff met with potential participants and their family to explain the study; third, assessors obtain informed consent from

all adolescents and family members. Adolescents are randomly assigned to the experimental group (structural family therapy) or control group, each group with 25 members. Next, all clients are administered the *DSM-5* diagnostic criteria for substance use disorder, and individuals must show symptoms over the course of a year with a severe level of severity. The experimental group will follow the treatment plan described in the book Practice*Planners*® series considering the chemical dependence tool, and follow a 90 days' intervention of structural family therapy. After that, all participants (control and experimental group) must be evaluated again with the *DSM-5,* where both groups with be compared.

**Ethical considerations.**

Prior to their involvement, participants and each family member will sign an informed consent, where the objectives of the study will be specified and where it will be stated that participation is entirely voluntary. The participants who choose not to participate because they have personal implications or need to retire, will not face any negative consequences and this could happen at any time during the study. To ensure anonymity each family will be assigned a code number, which only researchers will know who it belongs to. All samples taken from participants will be strictly confidential and used only for research purposes.

If participants are feeling overwhelmed or upset by any topic encountered in the therapeutic session, the session should stop and participants will be asked to attend extra individual sessions to work on conflicting problems. Also, the rhythm of each family will be respected and it is not required to work on issues that family members are not ready to confront. It is important to note that the therapy and treatment plan are standardized and have empirical evidence about its effectiveness. The research intends to minimize damage. However, some

participants might feel uncomfortable, and the process of recovery might be challenging leading to relapse.

# PROBABLE RESULTS

Based on the literature review, results are hopeful to show structural family therapy as an effective psychotherapy for treating adolescents suffering from substance use disorder (Stanton and Todd, 1979). The therapy influences Ecuadorian adolescents suffering from addiction, by helping them and their families understand the disease and how to manage it. Results would probably show that participants representative of a middle-low class families benefiting from structural family therapy, since the approach is representative of these population (Minuchin, et al., 1967).

The effect structural family therapy has in the treatment of addiction, would be evidenced in the results gathered from the symptoms endorsed from the *DSM-5* diagnostic criteria and level of severity marked before and after the psychotherapy. In other words, a difference should be identified in the number of symptoms endorsed and the level of severity that patients show after the intervention. For example, data collected after structural family therapy would indicate a reduction in the symptoms endorsed; impaired control, the continued use of substance despite negative social, occupational and health consequences, risky use, as well as evidence of tolerance or withdrawal (American Psychiatric Association, 2014). Also, the participant’s level of severity would change into; mild or moderate depending on the number of symptom criteria endorsed (American Psychiatric Association, 2014). Following an exhaustive statistical analysis, we could observe that the differences are leading to conclude that structural family therapy is effective for treating substance use disorder.

After completing the research, patient might show improvements in their psychological, physical and social functioning. The experimental group, will probably indicate a decrease in the symptoms endorsed. This is reported by Robbins and his colleagues, which indicate that by engaging and retaining families in treatment this helps decrease adolescent's symptoms associated with the disorder (Robbins, et al., 2003). Meaning that patients exposed to structural family therapy would improve in the social impairment criteria, being able to meet responsibilities at home, work or school. Also, by showing an active participation in social, work-related and recreational activities. More importantly, substance use is not the cause of social or relationship difficulties. The addict is expected to learn to control cravings and spend less time thinking about the substance, reducing symptoms of the impaired control criteria.

It is important to identify that results might not be presented as easily because participant have a high chance for relapse. Goldstein & Volkow (2011) neuroimaging studies, have shown dysfunctional pattern of the prefrontal cortex in individuals that suffer from substance use disorder. Dysfunction in the prefrontal cortex is related to negative outcomes, such as more drug use and a greater chance for relapse (Goldstein, & Volkow, 2011). It takes a long time, even for patients under therapy, for the brain to be rewired. The compulsive drugs use creates dysfunctional pathways for managing situations, this is where the "old brain" gains power and the survival/reinforcement circuit becomes overactive. Therefore, relapse is highly common, patients need to learn new ways to cope with different situations in which the control circuit engages the prefrontal cortex as the dominant region.

If a patient relapse, this stage should be considered part of the recovering process. Patients should learn from their mistakes and identify what went wrong and how that process can be changed for it not to happen again. In the opinion of Perkinson (1997), structural family

therapy minimizes the chances for relapse, since the whole family system is treated and new healthy boundaries, responsibilities and roles are helping the addict stay away from drugs by coping with their cravings and triggers (Perkinson, 1997).

## Discussion

Finalizing the study, the research question "*how and to what extent structural family therapy influences the treatment of Ecuadorian adolescent diagnosed with the DSM-5 diagnostic criteria of substance use disorder?"* will be answered splitting the question in two. How structural family therapy influence the treatment is by changing and modifying the overall organization of the family; which includes the family structure, subsystems and boundaries. The therapist must identify the family's boundaries, responsibilities and the structure the family presents. Considering Lawson & Lawson (1998), alcoholic families' can reveal disengaged boundaries that lack structure. Interestingly, the structure and hierarchy of alcoholic families are often reversed, there is a lack of power and leadership from part of the parents (Lawson & Lawson, 1998). In therapy, the family must be guided towards building a healthy structure, where parents learn to be up the hierarchy and regain their power.

The second part of the question, to what extent structural family therapy influences the treatment of substance use disorder, can be answered insinuating the study conducted by Stanton and Todd. Researchers conducted a study in which they compared family therapy with a family placebo condition and individual therapy. Structural family therapy participants show symptom reduction, meaning that the level of positive change was more than double compared to other conditions (the placebo and individual therapy). Also, these positive effects persisted in a follow-up of six and twelve months (Stanton and Todd, 1979). This means that the therapy is effective to the extent that symptoms are remarkably reduced and continued up to 12 months.

In *Families of the Slums* it is demonstrated that family therapy is effective when treating middle-low socioeconomic families (Minuchin et al., 1967). Santisteban and partners (1997), prove that structural family therapy has been successful in reducing the likelihood that African American and Latino adolescents initiate drug use by improving maladaptive family functioning. Referring to this literature, it is evident that the therapy is effective in the treatment of addiction to the extent that the applied population will benefit notably because they are representative of a middle SES and Latino adolescents (Santisteban et al., 1997).

Finally, it can be concluded that the methodology of this study is adequate to answer the research question. Having an experimental group and a control group is necessary, because it is possible to compare the results from both groups, before and after the psychotherapy, where it is possible to analyzed how and to what extent one group benefits from the therapy. It is a thorough investigation, that with great certainty it leads to the conclusion that structural family therapy is effective for treating adolescents with substance use disorder.

## Limitations

Upon the study completion, there are some research limitations that could have biased the results. First, the study has a poor inter-rated reliability between clinicians, because it is hard for professionals to be engaged in the treatment plan for 90 days, threatening the internal validity. Another limitation is that the study excludes patients who have co-occurring disorders, meaning that a high percentage of the population is not considered. Such exclusion impairs the generalizability of results. Therefore, findings need to be carefully looked at when stating conclusions.

Analyzing the study methodology another limitation is found, although randomized assigned groups are methodological choices that strengthen the experimental design, their use is

limited by ethical and practical concerns. For example, it won't be ethical to expose a patient to an intervention believed to be inferior to current treatment. The control group is sustained from therapy for 90 days, and just after that time they will be treated. Yet, it is not ethical to prevent them from therapy for them to recover. The last limitation is that structural family therapy is not a standardized technique applied to an Ecuadorian population, therefore the techniques are not adapted to the cultural differentiations. This can lead to an erroneous way to apply the therapy for treating adolescents suffering from addiction, threatening their recovery process.

Due to this revelation, in the future it is recommended to follow a structural family therapy standardized version in an Ecuadorian population. Later more future considerations are going to be presented.

## Future implications

On the report of SAMHSA approximately 7.9 million adults in the United States had co-occurring disorder in 2014 (Hedden, 2015). Therefore, it is important to evidence the effectiveness of structural family therapy in a follow-up study with participants that suffer from substance use disorder and a co-occurring disorder, for results to be more truthful. Considering Goldstein & Volkow (2011) neuroimaging studies, it would be interesting in the future to study how structural family therapy changes prefrontal cortex patterns, using therapeutic techniques like coping skills to regulate their emotions, take conscious decision and have self-control.

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# ANNEXED A: APPLICATION FOR APPROVAL OF THE STUDY AND INFORMED CONSENT FORM

**Comité de Ética de Investigación en Seres Humanos**
**Universidad San Francisco de Quito**
**El Comité de Revisión Institucional de la USFQ**
**The Institutional Review Board of the USFQ**

## SOLICITUD PARA APROBACION DE UN ESTUDIO DE INVESTIGACION

**INSTRUCCIONES:**

1. Antes de remitir este formulario al CBE, se debe solicitar vía electrónica un código para incluirlo, a comitebioetica@usfq.edu.ec
2. Enviar solo archivos digitales. Esta solicitud será firmada en su versión final, sea de manera presencial o enviando un documento escaneado.
3. Este documento debe completarse con la información del protocolo del estudio que debe servir al investigador como respaldo.
4. Favor leer cada uno de los parámetros verificando que se ha completado toda la información que se solicita antes de enviarla.

| DATOS DE IDENTIFICACIÓN |
|---|
| **Título de la Investigación** |
| **Structural Family Therapy in Treating Ecuadorian Adolescents with Substance Use Disorder.** |
| **Investigador Principal** *Nombre completo, afiliación institucional y dirección electrónica* |
| Rafaela Albornoz Riquetti, Universidad San Francisco de Quito, rafaela_albornoz@hotmail.com |
| **Co-investigadores** *Nombres completos, afiliación institucional y dirección electrónica. Especificar si no lo hubiera* |
| No aplica |
| **Persona de contacto** *Nombre y datos de contacto incluyendo teléfonos fijo, celular y dirección electrónica* |
| **Rafaela Albornoz Riquetti, 023332327, 0995635994** |
| **Nombre de director de tesis y correo electrónico** *Solo si es que aplica* |
| **Mariel Paz y Miño, mpazymino@usfq.edu.ec** |
| **Fecha de inicio de la investigación** *Septiembre 2016* |
| **Fecha de término de la investigación** *Diciembre 2016* |
| **Financiamiento** *No aplica* |

| DESCRIPCIÓN DEL ESTUDIO |
|---|
| **Objetivo General** *Se debe responder tres preguntas: qué? cómo? y para qué?* |
| Analizar cómo y hasta qué punto la terapia estructural familiar influye en el tratamiento del adolescente ecuatoriano diagnosticado con los criterios de diagnósticos del *DSM-5* para el trastorno por consumo de sustancias. Se evaluará con el criterio de diagnóstico del *DSM-5* antes y después de la intervención psicoterapéutica para medir el efecto de la terapia sobre los síntomas que incluyen el trastorno por consumo de sustancias. |

**Objetivos Específicos**

- Evaluar con el criterio de diagnóstico del *DSM-5* para el trastorno por consumo de sustancias a adolescentes ecuatorianos.
- Intervenir por 90 días con terapia familiar estructural al seguir la herramienta de dependencia de sustancias químicas referida en The Practice*Planners*® series.
- Evaluar nuevamente con el criterio de diagnóstico del *DSM-5* para el trastorno por consumo de sustancias
- Analizar los cambios en los resultados de ambos grupos antes y después de la intervención psicoterapéutica
- Analizar el efecto de la terapia familiar estructural en el tratamiento del adolescente ecuatoriano diagnosticado con trastorno por consumo de sustancias.

**Diseño y Metodología del estudio** *Explicar el tipo de estudio (por ejemplo cualitativo, cuantitativo, con enfoque experimental, cuasi-experimental, pre-experimental; estudio descriptivo, transversal, de caso, in-vitro…) Explicar además el universo, la muestra, cómo se la calculó y un breve resumen de cómo se realizará el análisis de los datos, incluyendo las variables primarias y secundarias..*

El estudio es de tipo cuantitativo con un diseño pre prueba- post prueba. Para el propósito de esta investigación se requiere que participen 50 adolescentes ecuatorianos representativos de un nivel socioeconómico medio bajo, diagnosticados con trastorno por consumo de sustancias con un nivel severo. Para esto, se gestiona un registro en centros de salud, escuelas, periódico y la radio. A los participantes seleccionados que cumplan con el criterio de inclusión, se les aplicará el criterio de diagnóstico del *DSM-5* y mediante un muestreo probabilístico aleatorio simple; 25 participantes serán asignados al grupo experimental (terapia familiar estructural) y 25 participantes al grupo control. Al culminar los 90 días de intervención psicoterapéutica, se analizará si existe alguna diferencia entre los resultados antes y después del estudio de los diferentes grupos.

**Procedimientos** *Los pasos a seguir desde el primer contacto con los sujetos participantes, su reclutamiento o contacto con la muestra/datos.*

1. Contactar la fuente donde se realizó el registro voluntario de adolescentes.
2. Contactar al voluntario y a su familia, preguntar los criterios de inclusión y si cumplen con los mismos, explicar en detalle el estudio y pedirles que participen.
3. Evaluar a los adolescentes que aceptaron ser parte del estudio con el criterio de diagnóstico del *DSM-5* para el trastorno por consumo de sustancias.
4. Escoger aleatoriamente con el lanzamiento de una moneda, 25 participantes que formen parte del grupo experimental y 25 participantes que formen parte del grupo control.
5. Intervenir con la terapia familiar estructural por una duración de 90 días a los participantes del grupo experimental e implementar la herramienta de dependencia de sustancias químicas referida en The Practice*Planners*® series.
6. Al culminar la terapia, evaluar nuevamente ambos grupos de participantes con el criterio de diagnóstico del DSM-5.
7. Analizar si existe diferencia entre los puntajes antes y después de la intervención de ambos grupos.

**Recolección y almacenamiento de los datos** *Para garantizar la confidencialidad y privacidad, de quién y donde se recolectarán datos; almacenamiento de datos—donde y por cuánto tiempo; quienes tendrán acceso a los datos, qué se hará con los datos cuando termine la investigación*

Se respetarán todas las consideraciones éticas relacionadas a un estudio con individuos. Todos los participantes deberán firmar un consentimiento informado previo a su participación en el estudio, donde se especificarán los objetivos, procedimiento y se aclarará que la participación de cada individuo es completamente voluntaria. Si algún participante decide no participar o retirarse del estudio, no habrá ninguna consecuencia negativa. El estudio asegura el anonimato de los participantes y la de sus familiares, se les asignará un código el cual solo el investigador sabrá a quien pertenece. Toda muestra que se tome de los participantes serán utilizados para la investigación y serán destruidas en cuanto termine el estudio.

| **Herramientas y equipos** *Incluyendo cuestionarios y bases de datos, descripción de equipos* |
|---|
| *DSM-5* y The Practice*Planners*® series considering the chemical dependence tool |

| **JUSTIFICACIÓN CIENTÍFICA DEL ESTUDIO** |
|---|
| *Se debe demostrar con suficiente evidencia por qué es importante este estudio y qué tipo de aporte ofrecerá a la comunidad científica.* |
| Debido a los recursos limitados del tratamiento de la adicción en Ecuador, el estudio presentado sería uno de los primeros que propone la terapia familiar estructural para tratar a familias que incluyen a adolescentes de clase media, diagnosticados con el criterio *DSM-5* para el trastorno por consumo de sustancias. Con respecto a Stanton y Todd, la terapia familiar estructural puede ser eficaz para tratar a los adictos y sus familias (Stanton y Todd, 1979). Estudios más recientes han demostrado que la terapia familiar estructural puede ser eficaz cuando se dirige a jóvenes afroamericanos y latinos para reducir la probabilidad de iniciar el uso de drogas (Nichols, 2013). Por esto, el estudio es útil ya que permite conocer si existe una manera de influenciar en el tratamiento y ayudar a la recuperación de los adolescentes que padecen con este trastorno. |
| *Referencias bibliográficas completas en formato APA* |


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**DESCRIPCIÓN DE LOS ASPECTOS ÉTICOS DEL ESTUDIO**

**Criterios para la selección de los participantes** *Tomando en cuenta los principios de beneficencia, equidad, justicia y respeto*

Los criterios de inclusión de los adolescentes requieren que tengan entre 13 y 19 años y cumplan con los criterios diagnósticos para el trastorno por consumo de sustancias a lo largo de un año, con un severo nivel de gravedad (incluye seis a más síntomas). Además, se requiere la participación de al menos 2 padres/cuidadores y 1-2 hermanos.

**Riesgos** *Describir los riesgos para los participantes en el estudio, incluyendo riesgos físico, emocionales y psicológicos aunque sean mínimos y cómo se*

| *los minimizará* |
| --- |
| Existe el riesgo de que algunas técnicas terapéuticas sean confróntales, o que diferentes temas causen ansiedad y tensión entre familiares. Estar en una posición delicada puede conducir a una posible recaída. |
| **Beneficios para los participantes** *Incluyendo resultados de exámenes y otros; solo de este estudio y cómo los recibirán* |
| Los beneficios se reflejan directamente en tener una terapia y plan de tratamiento que están estandarizados y tienen evidencia empírica sobre su eficacia. |
| **Ventajas potenciales a la sociedad** *Incluir solo ventajas que puedan medirse o a lo que se pueda tener acceso* |
| Si la terapia familiar estructural tiene efecto en el trastorno por consumo de sustancias, se podría aplicar en la sociedad ecuatoriana, y ayudaría a reducir la prevalencia de consumo de sustancias en el Ecuador. |
| **Derechos y opciones de los participantes del estudio** *Incluyendo la opción de no participar o retirarse del estudio a pesar de haber aceptado participar en un inicio.* |
| Los participantes tienen el derecho a negarse o renunciar a su participación en cualquier momento del estudio, sin ninguna consecuencia negativa. |
| **Seguridad y Confidencialidad de los datos** *Describir de manera detallada y explícita como va a proteger los derechos de participantes* |
| Se respetarán todas las consideraciones éticas relacionadas a un estudio con individuos. Todos los participantes deberán firmar un consentimiento informado previo a su participación en el estudio, donde se especificarán los objetivos, procedimiento y se aclarará que la contribución de cada individuo es completamente voluntaria. Si algún participante decide no participar o retirarse del estudio, no habrá ninguna consecuencia negativa. El estudio asegura el anonimato de los participantes y la de sus familiares, se les asignará un código el cual solo el investigador sabrá a quien pertenece. Toda muestra que se tome de los participantes serán utilizados para la investigación y serán destruidas en cuanto termine el estudio. |
| **Consentimiento informado** *Quién, cómo y dónde se explicará el formulario/estudio. Ajuntar el formulario o en su defecto el formulario de no aplicación o modificación del formulario* |
| Cada participante deberá firmar un consentimiento informado antes del estudio. |
| **Responsabilidades del investigador y co-investigadores dentro de este estudio.** |
| El investigador tiene la responsabilidad de respetar a todos los participantes del estudio y mantener siempre presente las consideraciones éticas. |

| **Documentos que se adjuntan a esta solicitud** *(ponga una X junto a los documentos que se adjuntan)* | | | |
|---|---|---|---|
| Nombre del documento | Adjunto | Idioma | |
| | | Inglés | Español |
| **PARA TODO ESTUDIO** | | | |
| 1. Formulario de Consentimiento Informado (FCI) y/o Solicitud de no aplicación o modificación del FCI * | x | | x |
| 2. Formulario de Asentimiento (FAI) *(si aplica y se va a incluir menores de 17 años)* | | | |
| 3. Herramientas a utilizar *(Título de:: entrevistas, cuestionarios, guías de preg., hojas de recolección de datos, etc)* | x | | x |
| 4. Hoja de vida (CV) del investigador principal (IP) | | | |
| **SOLO PARA ESTUDIOS DE ENSAYO CLÍNICO** | | | |
| 5. Manual del investigador | | | |
| 6. Brochures | | | |
| 7. Seguros | | | |
| 8. Información sobre el patrocinador | | | |
| 9. Acuerdos de confidencialidad | | | |
| 10. Otra información relevante al estudio (especificar) | | | |

(*) La solicitud de no aplicación o modificación del FCI por escrito debe estar bien justificada.

| **PROVISIONES ESPECIALES** |
|---|
| *Esta sección debe llenar solo si aplica. En ella se incluyen manejo de población vulnerable y muestras biológicas, manejo de eventos adversos, seguros de incapacidad o muerte, entre otros.* |
| Click here to enter text. |

| **CRONOGRAMA** | **AÑO** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Descripción de la Actividad** (pasos a seguir dentro del proceso de investigación, comenzando por el contacto inicial, reclutamiento de participantes, intervención y/o recolección de datos, análisis, publicación…) | **Fechas** | | | | | | | |
| | | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
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**CERTIFICACIÓN:**

1. Certifico no haber recolectado ningún dato ni haber realizado ninguna intervención con sujetos humanos, muestras o datos. Sí ( x ) No ( )
2. Certifico que los documentos adjuntos a esta solicitud han sido revisados y aprobados por mi director de tesis. Sí ( ) No ( ) No Aplica ( x )

**Firma del investigador: ___________________________________________** (con tinta azul)

**Fecha de envío al Comité de Bioética de la USFQ: ______________________________**

**Comité de Ética de Investigación en Seres Humanos**
**Universidad San Francisco de Quito**
**El Comité de Revisión Institucional de la USFQ**
**The Institutional Review Board of the USFQ**

**Formulario Consentimiento Informado**

Título de la investigación: Structural Family Therapy in Treating Ecuadorian Adolescents with Substance Use Disorder.
**Organización del investigador** *Universidad San Francisco de Quito*
**Nombre del investigador principal** *Rafaela Albornoz Riquetti*
**Datos de localización del investigador principal** *023332327, 0995635994, rafaela_albornoz@hotmail.com.*

| **DESCRIPCIÓN DEL ESTUDIO** |
|---|
| **Introducción** *(Se incluye un ejemplo de texto. Debe tomarse en cuenta que el lenguaje que se utilice en este documento no puede ser subjetivo; debe ser lo más claro, conciso y sencillo posible; deben evitarse términos técnicos y en lo posible se los debe reemplazar con una explicación)* |
| Este formulario incluye un resumen del propósito de este estudio. Usted puede hacer todas las preguntas que quiera para entender claramente su participación y despejar sus dudas. Para participar puede tomarse el tiempo que necesite para consultar con su familia y/o amigos si desea participar o no.<br>Usted ha sido invitado a participar en una investigación sobre el efecto de la terapia familiar estructural sobre el tratamiento del trastorno por consumo de sustancias porque la terapia puede ayudar en el proceso de recuperación a personas que sufren del dicho trastorno y a sus familias. |
| **Propósito del estudio** (incluir una breve descripción del estudio, incluyendo el número de participantes, evitando términos técnicos e incluyendo solo información que el participante necesita conocer para decidirse a participar o no en el estudio) |
| Para el propósito de esta investigación se requiere que participen 50 adolescentes ecuatorianos representativos de un nivel socioeconómico medio bajo, diagnosticados con trastorno por consumo de sustancias con un nivel severo. El estudio busca analizar si hay diferencias entre el grupo experimental y el grupo control antes y después de la intervención. |
| **Descripción de los procedimientos** (breve descripción de los pasos a seguir en cada etapa y el tiempo que tomará cada intervención en que participará el sujeto) |
| 1. Contactar la fuente donde se realizó el registro voluntario de adolescentes.<br>2. Contactar al voluntario y a su familia, preguntar los criterios de inclusión y si cumplen con los mismos, explicar a detalle el estudio y pedirles que participen.<br>3. Evaluar a los adolescentes que aceptaron ser parte del estudio con el criterio de diagnóstico del *DSM-5* para el trastorno por consumo de sustancias.<br>4. Escoger aleatoriamente con el lanzamiento de una moneda, 25 participantes que formen parte del grupo experimental y 25 participantes que formen parte del grupo control.<br>5. Intervenir con la terapia familiar estructural por una duración de 90 días a los participantes del grupo experimental e implementar la herramienta de dependencia de sustancias químicas referida en The Practice*Planners*® series.<br>6. Al culminar la terapia, evaluar nuevamente a ambos grupos con el criterio de diagnóstico del DSM-5.<br>7. Analizar si existe diferencia entre los puntajes antes y después de la intervención de ambos grupos. |

| **Riesgos y beneficios** (explicar los riesgos para los participantes en detalle, aunque sean mínimos, incluyendo riesgos físicos, emocionales y/o sicológicos a corto y/o largo plazo, detallando cómo el investigador minimizará estos riesgos; incluir además los beneficios tanto para los participantes como para la sociedad, siendo explícito en cuanto a cómo y cuándo recibirán estos beneficios) |
|---|
| Existe el riesgo de que algunas técnicas terapéuticas sean confróntales, o que diferentes temas causen ansiedad y tensión entre familiares. Estar en una posición delicada puede conducir a una posible recaída.<br>Los beneficios se reflejan directamente en tener una terapia y plan de tratamiento que están estandarizados y tienen evidencia empírica sobre su eficacia.<br>Este estudio es beneficioso para la sociedad porque si la terapia familiar estructural tiene efecto en el trastorno por consumo de sustancias, se podría aplicar en la sociedad ecuatoriana, y ayudaría a reducir la prevalencia de consumo de sustancias en el Ecuador. |
| **Confidencialidad de los datos** *(se incluyen algunos ejemplos de texto)* |
| Para nosotros es muy importante mantener su privacidad, por lo cual aplicaremos las medidas necesarias para que nadie conozca su identidad ni tenga acceso a sus datos personales:<br>1) La información que nos proporcione se identificará con un código que reemplazará su nombre y se guardará en un lugar seguro donde solo el investigador y el testigo de la investigación tendrán acceso.<br>2A) Si se toman muestras de su persona estas muestras serán utilizadas solo para esta investigación y destruidas tan pronto termine el estudio *(si aplica) ó*<br>2B) Si usted está de acuerdo, las muestras que se tomen de su persona serán utilizadas para esta investigación y luego se las guardarán para futuras investigaciones removiendo cualquier información que pueda identificarlo *(si aplica)*<br>3) Su nombre no será mencionado en los reportes o publicaciones.<br>4) El Comité de Bioética de la USFQ podrá tener acceso a sus datos en caso de que surgieran problemas en cuando a la seguridad y confidencialidad de la información o de la ética en el estudio. |
| **Derechos y opciones del participante** (se incluye un ejemplo de texto) |
| Usted puede decidir no participar y si decide no participar solo debe decírselo al investigador principal o a la persona que le explica este documento. Además, aunque decida participar puede retirarse del estudio cuando lo desee, sin que ello afecte los beneficios de los que goza en este momento.<br>Usted no recibirá ningún pago ni tendrá que pagar absolutamente nada por participar en este estudio. |
| **Información de contacto** |
| Si usted tiene alguna pregunta sobre el estudio por favor llame al siguiente teléfono 0995635994 que pertenece a Rafaela Albornoz Riquetti, o envíe un correo electrónico a rafaela_albornoz@hotmail.com |
| Si usted tiene preguntas sobre este formulario puede contactar al Dr. William F. Waters, Presidente del Comité de Bioética de la USFQ, al siguiente correo electrónico: comitebioetica@usfq.edu.ec |

<table>
<tr><td colspan="2">Consentimiento informado (Es responsabilidad del investigador verificar que los participantes tengan un nivel de comprensión lectora adecuado para entender este documento. En caso de que no lo tuvieren el documento debe ser leído y explicado frente a un testigo, que corroborará con su firma que lo que se dice de manera oral es lo mismo que dice el documento escrito)</td></tr>
<tr><td colspan="2">Comprendo mi participación en este estudio. Me han explicado los riesgos y beneficios de participar en un lenguaje claro y sencillo. Todas mis preguntas fueron contestadas. Me permitieron contar con tiempo suficiente para tomar la decisión de participar y me entregaron una copia de este formulario de consentimiento informado. Acepto voluntariamente participar en esta investigación.</td></tr>
<tr><td>Firma del participante</td><td>Fecha</td></tr>
<tr><td>Firma del testigo (si aplica)</td><td>Fecha</td></tr>
<tr><td colspan="2">Nombre del investigador que obtiene el consentimiento informado</td></tr>
<tr><td>Firma del investigador</td><td>Fecha</td></tr>
</table>

## ANNEXED B: LETTER FOR RECRUITMENT OF PARTICIPANTS

# Se buscan participantes para estudio psicológico

Requisitos:

- Adolescentes entre 13 y 19 años
- 3 a 4 familiares más cercanos

Para más información contactar al:
0995635994