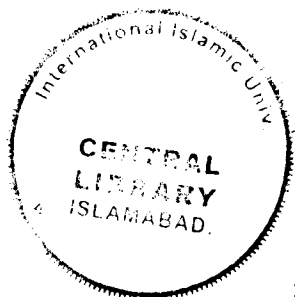


**COMPARISON BETWEEN AN EVIDENCE-BASED TREATMENT  
APPROACH AND TRADITIONAL COUNSELLING IN  
TREATMENT OF CANNABIS USERS**



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**2022**

Accession No. TH-26446 K.

PhD  
362.295  
SAC

Cannabis - Treatment

Substance abuse - Psychological aspects

Cognitive therapy

Counseling

Behavioral modification therapy

Community education

**COMPARISON BETWEEN AN EVIDENCE-BASED TREATMENT  
APPROACH (CRA) AND TRADITIONAL COUNSELLING IN  
TREATMENT OF CANNABIS USERS**

Submitted to the Department of Psychology (Female Campus), International  
Islamic University Islamabad  
In partial fulfillment of the requirements  
for the award of degree of

PhD

IN  
PSYCHOLOGY

By



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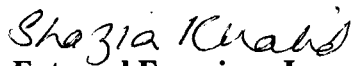
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## CERTIFICATION

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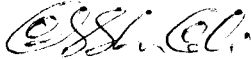
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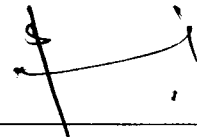


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## DECLARATION

I **Ms. Safia Ashfaq**, Registration No. **45-FSS/PHDPSY/F-14** student of **PhD** in the subject of Psychology, session **2014-2022**, hereby declare that the matter printed in the thesis titled **COMPARISON BETWEEN AN EVIDENCE-BASED TREATMENT APPROACH (CRA) AND TRADITIONAL COUNSELLING IN TREATMENT OF CANNABIS USERS** is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research Institution in Pakistan or abroad.



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## RESEARCH COMPLETION CERTIFICATE

Certified that this thesis titled "COMPARISON BETWEEN AN EVIDENCE-BASED TREATMENT (CRA) AND TRADITIONAL COUNSELLING IN TREATMENT OF CANNABIS USERS" has been carried out and completed by **Ms. Safia Ashfaq**, Registration No. **45-FSS/PHDPSY/F-14** under my supervision.



---

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## **Dedication**

Dear Parents,

The reason we are here. Thank you so much for your unending love, support, and encouragement. To all my professors, Thank you for your unwavering support, guidance, and dedication.

## AKNOWLEDGEMENT

In the name of **ALLAH**, the most merciful, the most beneficent.

I am deeply grateful to almighty **ALLAH S.W.T** on whom we depend for sustenance and guidance, who gave me the talent, opportunity, and strength to complete this Dissertation.

It was only through support and encouragement of many, that I have been able to complete this amazing journey.

I would like to express my deep and sincere gratitude to my research supervisor **Dr. Kehkashan Arouj** for her assistance, motivation, support, and patience throughout the research. Her dynamism, vision, sincerity, and encouragement have deeply inspired me to work hard.

I am thankful to entire Psychology Department IIUI female campus, for their cooperation. I would like to acknowledge **Dr. Nazia Iqbal, Dr. Mamoonah Ismail Loona, Dr. Tamkeen, Dr. Rabia Mushtaq**, and **Mr. Irshad** for their support and motivation for my research work.

I am indebted to my entire organization **PAF Hospital, Islamabad**, who provided support and camaraderie throughout this journey. I owe a special debt of gratitude to my Department of Psychiatry, PAF Hospital Islamabad, for their cooperation. Especially, **Brig. (R) Dr. Rashid Qayyum, Brig. Dr. Mansoor Mustafa, S/L Dr. Nazo Jomezai**, and **S/L Dr. Rabia Asghar**, their invaluable knowledge, guidance, discussions and encouragement kept me motivated.

I would like to express my deepest gratitude to my family for their unwavering support, patience, and belief in me. Their love, prayers, and encouragement sustained me during the challenging times. I am very grateful to my sister, brothers, and sister-in-law for their support and valuable

prayers.

A special note of gratitude goes to my best friend, **Miss Sahrish**, whose unwavering support, late-night conversations, and words of encouragement provided me with both solace and motivation. Her belief in my abilities and her friendship made the long hours of research and writing more manageable. Also, I am grateful to my friend **Miss Tabassum Latif** for motivating me in completion of thesis.

I would like to convey my thanks to all the participants of the study and hospital staff who helped me in data collection. I would like to thank my students who helped me in my data collection phase.

In conclusion, I am truly grateful for the collective contributions of all those mentioned above. This thesis reflects their guidance, support, and belief in my abilities.

**Safia Ashfaq**

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## Abstract

The present study introduced an evidence-based treatment (CRA) for cannabis addicts as compared to traditional counselling. The CRA was developed by Hunt & Arzin in 1973, on the principle of operant conditioning. The therapy manual used in this study was based on Robert J. Meyers & Jane Ellen Smith's manual 'A Community Reinforcement Approach Treating Cocaine Dependence'. The research was divided into two studies. Study I was based on the translation and validation of the CRA manual and the scales. Two scales were translated into Urdu language by following the Brislin method of translation; Social Context Cannabis Use Scale (Beck, et al., 2009) and Happiness Scale (Smith & Meyers, 2001). After translation of the scales, factorization both EFA, CFA and reliability analysis were carried out to establish the psychometric properties of the translated scales. The sample comprised 300 cannabis addicts. A purposive sampling technique was used to collect data. All the subjects were male, the age range of the subjects was between 18 to 50 years and met the diagnostic criteria for cannabis dependence according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013). The reliability of both translated scales i.e., Social Context Cannabis Use Scale and Happiness Scale was quite satisfactory  $r = .84$  and  $.97$ , respectively. Study II was comprised of two phases. Phase 1 was based on a pilot study, to estimate the psychometric properties of the study variables. Phase 2 was the core of the present study in which the feasibility of CRA was measured for cannabis addicts. The data was gathered from different treatment and rehabilitation centres for addiction treatment in Islamabad and Rawalpindi. Samples were drawn by employing a

purposive sampling technique. The sample was comprised of 40 cannabis users, age ranging from 20 to 50 years. This study was based on quasi-experimental design (pre-test-post-test) to compare the effectiveness of CRA on different variables i.e. marital satisfaction, social adjustment, depression, anxiety, and stress as compared to traditional counselling. One sample consisted of a group of 21 cannabis addicts who received CRA treatment and the other consisted of a group of 19 cannabis addicts who received traditional treatment. The instruments used in the present study were Social Context Cannabis Use Scale (Beck, et al., 2009), Happiness Scale (Smith & Meyers, 2001), Depression Anxiety Stress Scale (Khalily & Zafar, 2014), Social Adjustment Scale (Mushtaq, 2005), and Dyadic Adjustment Scale (Naseer, 2000). The pilot study revealed that all the scales were highly reliable measures for the present sample. The reliability of the scales i.e., Social Context Cannabis Use Scale, Happiness Scale, Depression Anxiety Stress Scale, Social Adjustment Scale, and Dyadic Adjustment Scale showed alpha reliability  $r = .77, .92, .70, .90$  and  $.94$ , respectively. It was hypothesised that CRA will be more effective on cannabis addicts as compared to other traditional counselling treatments. It was also hypothesised that there will be a high level of satisfaction, a high level of marital satisfaction, and a high level of social adjustment among cannabis addicts who received CRA. It was also hypothesised that CRA will be more effective in reducing depression, anxiety, and stress among cannabis addicts. Results showed significant differences among variables with reference to CRA and traditional counselling. On happiness, depression, anxiety, stress, social adjustment, and dyadic adjustment there are significant relationships across the conditions for both treatment group and control

group i.e.,  $F=59.65$ ,  $\eta^2=.61$ ,  $p=.000$ ;  $F= 39.91$ ,  $\eta^2=.51$ ,  $p=.000$ ;  $F= 120.74$ ,  $\eta^2=.76$ ,  $p=.000$ ;  $F= 85.89$ ,  $\eta^2=.69$ ,  $p=.000$ , respectively. Overall the findings showed differences between CRA and traditional counselling with reference to study variables supporting all the hypotheses. The present study is a significant contribution to the field of mental health, psychotherapy, and addiction particularly in the context of prevailing values of Pakistani society.

## Chapter I

### Introduction

The present study aimed to introduce an evidence-based treatment program known as the Community Reinforcement Approach (CRA) for treating cannabis addicts with reference to the Pakistani context. In the present study cannabis addicts were chosen because cannabis is the most common illegal psycho-active substance in Pakistan. In view of increased cannabis use and treatment demand, there is a need for effective cannabis-specific treatment programs.

World Drug Report (2023), revealed an estimation of 219 million people worldwide had used drugs in 2021. Cannabis remains by far the world's most-used drug. Only 1 in 5 people with substance disorders received drug treatment. In Pakistan, approximately 6 percent of the population 9 percent of the adult male population and 2.9 percent of the adult female population that is equivalent to 6.7 million people had used a substance other than alcohol and tobacco in the preceding year.

Cannabis substances are the most widely used excessively among illegal narcotics worldwide, especially among young people in the majority of Western countries over the past 20 years. According to a survey by the United Nations Office on Drug and Crime (UNODC, 2023), cannabis is the most widely used illegal psychoactive substance in Pakistan and is consumed by about four million people (3.6% of the adult population). Although the use and abuse of cannabis exist across both genders and all socioeconomic sectors in Pakistan, men and those with lower levels of education use the drug more frequently. Hashish (Charas) inhalation is the primary method of consuming cannabis in Pakistan, while consumption of "bhang", a drink made from cannabis leaves is also common. In Pakistan, young people

consume cannabis for a variety of reasons. Some individuals may use cannabis for recreational purposes to experience its psychoactive effects, such as feeling relaxed, euphoric, or altered perceptions. Despite its legal status, some people might still use cannabis clandestinely for recreational purposes. Cannabis contains compounds called cannabinoids, such as CBD (cannabidiol) and THC (tetrahydrocannabinol), which have potential medicinal properties. In some places where medical cannabis is legal, individuals with certain medical conditions, such as chronic pain, epilepsy, multiple sclerosis, or nausea related to chemotherapy, may use cannabis as an alternative or complementary treatment. In some cultures, cannabis has been used for centuries for various purposes, including religious or spiritual rituals and traditional medicine. People may use cannabis due to social or peer pressure. If it is perceived as socially acceptable or prevalent within a particular group or community, individuals might be more inclined to try it. Like any psychoactive substance, some individuals may turn to cannabis as a way to cope with stress, anxiety, or other emotional challenges they are facing.

Hashish is one of the most widely produced drugs in the world, and much of it is transported to Europe, Africa, and North America via the Middle East and Central Asia. In many parts of the nation, cannabis grows wild; cultivation is pervasive and is thought to be rising as a result of continuous political and economic unrest. Sending cannabis addicts to a rehab facility for treatment is thought to be the simplest and most efficient method. Drug addicts have been proven to respond best to a humanistic approach to treatment. The only option to lower the prevalence of drug usage in the nation is for government agencies to crack down hard on drug gangs. Peer pressure, utilizing cannabis as a supplementary coping mechanism for psycho-social stressors, and using cannabis for its euphoric benefits are a few of these (Goodwin,1974).

Generally, people consume cannabis primarily for its euphoric effects, its ability to facilitate social relationships, and as a secondary coping mechanism for psycho-social stressors. A growing body of research indicates that cannabis addiction increases the risk of developing psychosis, manic or depressive episodes in people (Khalily et al., 2015).

A range of conventional ways to treating drug addiction have been developed throughout the past three decades of scientific research and clinical experience. But not every drug abuse treatment is equally successful. A collection of underlying principles that describe the implementation of the most successful drug abuse and addiction treatments have also been identified through research. Effective cannabis-specific treatment programs are required in light of the demand for cannabis use and treatment that has increased.

The current study was based on an intervention plan for the treatment of cannabis use. Due to cannabis addiction, the individual suffers from different psychological and social problems. Hence, the present study aimed to address and introduce effective treatment for these issues, which includes; depression, anxiety, stress, poor social adjustment, relationship problems, and so on.

### **Cannabis Addiction**

According to the survey National Institute on Drug Abuse (2014) Cannabis use disorder (CUD), also known as cannabis addiction or marijuana addiction, which is also defined in the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and ICD-10 as the continued use of cannabis despite clinically substantial impairment (Gordon et al., 2013).

According to Moreno-Rius (2019), numerous governments have implemented legislative changes concerning cannabis, leading to its legalization for medical purposes and, in some

cases, even for recreational use in various countries. Nevertheless, it is essential to emphasize that despite cannabis seems to have a low-risk profile, it is not without its dangers (Kim & Monte, 2016; Kilmer, 2017; Belackova & Wilkins, 2018). It is a substance known to have the potential to create addiction syndromes, and no specific medications exist to address these issues (Piomelli, et al., 2016; Amann, 2018). Furthermore, prolonged cannabis use has been linked to alterations in brain structure and function comparable to those induced by other addictive substances (Zehra,2018).

Long-term cannabis usage alters the body's pharmacodynamic interactions with target cells as well as its pharmacokinetic interactions with absorption, distribution, metabolism, and excretion of the substance. These modifications strengthen the body's metabolic systems so they can eliminate the drug more effectively, further down-regulate cannabinoid receptors in the brain, and necessitate bigger dosages of the medication to produce a common beneficial effect (known as a higher tolerance) (Hirvonen et al., 2011).

The extended and growing usage of cannabis is frequently the cause of cannabis addiction. The growth of cannabis dependence is frequently accelerated by increasing the dosage of cannabis and by using more potent delivery systems. Another factor that can contribute to it is having a genetic or acquired propensity for substance addiction (Coffey et al., 2003). Researchers have been able to follow aspects of social and psychological development concurrently with cannabis use thanks to longitudinal studies conducted over a number of years. Certain characteristics are thought to increase the likelihood of acquiring cannabis dependence. The frequency and age of cannabis use are being linked to an increase in related difficulties, with young and frequent users being particularly at risk (Freisthler et al., 2015).

Cannabis usage is linked to comorbid mental health issues like low mood, stress, and anxiety related, and for some users, quitting cannabis is challenging (Danovitch & Gorelick, 2012). Cannabis use is frequently accompanied by psychiatric comorbidities, such as a variety of personality problems (Dervaux & Laquelle, 2012).

### **Cannabis Addiction and Depression**

Depression generally has an impact on a person's overall wellbeing. It includes a variety of symptoms, such as discontentment, melancholy, grief, hopelessness, emptiness, and worthlessness, as well as a lack of interest in routine activities and a sense of social isolation.

As the third most frequent illness in the world, depression is one of the widespread public health issues. According to estimates, about one million people commit suicide each year and more than 150 million people suffer from depression (WHO, 2021). In developing countries of the world like Pakistan, 10–44% suffer from depression and anxiety disorders, less than 35% receive medical treatment and 50.8 million people suffer from major depression (WHO, 2021; Athar et al., 2017).

Feeling depressed for a significant portion of a day might be characterized as being sad, blue, gloomy, or down in the dumps. Most people experience it occasionally. A kind of mood disorder known as true clinical depression is characterized by feelings of grief, loss, rage, or frustration that interfere with daily functioning for weeks or more (Fava & Cassano, 2008).

Childbirth, menopause, financial hardships, unemployment, stress (from work, education, family, living conditions, etc.), a medical diagnosis (cancer, HIV, etc.), bullying, loss of a loved one, natural disasters, social isolation, rape, relationship issues, jealousy, separation, or catastrophic injury are just a few examples of life events and changes that may affect depressed moods (Cohen et al., 2005; Tharpe et al., 2012).

Less research has been done on the relationship between cannabis usage and depression than there may be on the relationship between cannabis use and psychosis. One explanation could be that depressed cannabis addicts are less likely than psychotic users to seek out treatment options. Cannabis usage is also illegal, and depressed persons may not freely report their use. Additionally, there has been new research on the existence of cannabis dependence (or even problematic cannabis usage), but there hasn't been much therapy accessible, and what there was might not have shown a relationship because they didn't ask about depression symptoms (Degenhardt et al., 2003a).

Rising rates of cannabis addiction and depression among young people have aroused concerns in recent years in many different nations (Degenhardt et al., 2003b; Johns, 2001). These have coincided with growing concern about young adult suicide, which is linked to both problematic drug use and depression (Lynskey et al., 2000; Beautrais et al., 1999). Cannabis use, according to some scientists, could contribute to depressive and suicidal behaviours (Johns, 2001; Bovasso, 2001; Bovasso, 2003; Feingold, et.al, 2022)

In a case study conducted in New Zealand, people who made severe suicide attempts had greater rates of cannabis use and abuse (16% vs. 2% among controls) (Beautrais et al., 1999). Cannabis addicts exhibited greater levels of depression, according to a research of 20-year-olds that divided participants into groups based on their cannabis use (abstainers, experimenters, and "heavy" users) (Milich et al., 2000).

The research on the relationship between cannabis abuse and depression is fragmented overall. Cross-sectional research imply that a history of depression explains the

dysphoria connected to cannabis usage, whereas longitudinal studies suggest that cannabis consumption in adulthood worsens depressive symptoms (Bovasso, 2001)

In a preliminary assessment, Degenhardt et al. (2003) said that "there is growing evidence that regular cannabis use and depression occur together more frequently than we might predict by coincidence". The prevalence of cannabis use in US among teenagers with depression was estimated to be 25% in the past year, compared to only 12% among those without depression, according to data from the National Survey on Drug Use and Health (National Survey on Drug Use and Health, 2006).

Cannabis usage, and especially excessive cannabis use, may be linked to a somewhat significant elevated risk for developing depression, according to a meta-analysis concentrating on longitudinal evidence in the subject (Lev-Ran et al., 2013). Clumsy analyses in a Swedish population-based cohort suggested that cannabis usage at baseline was linked to higher odds of subsequent depression (Danielsson et al., 2004).

An opposing view has concentrated on the potential role of depression in the initiation or progression of cannabis usage in the future (Monti et al., 2021). Several clinical observations have suggested that poor mood may be a trigger for substance use (Gruber et al., 1997; Ogborne et al., 2000). It has long been hypothesized that people with psychological discomfort may use drugs or alcohol to "self-medicate" its negative effects (Khantzian, 1987).

The findings align with a meta-analysis of longitudinal data, which suggests that individuals using cannabis may have a higher likelihood of developing depression when compared to non-users (Mammen et al., 2018; Feingold et al., 2015). Nevertheless, it remains

uncertain whether this association indicates a causal relationship or if there are shared risk factors at play. Furthermore, there is a need for studies that can shed light on the conflicting evidence concerning the impact of gender on cannabis use and its potential link to the risk of developing depression (Man Xiong Lai & Sitharthan, 2012; Passarotti et al., 2015).

Based on national data, it appears that cannabis use and Cannabis Use Disorder (CUD) are linked to mood disorders, specifically depression and bipolar I disorder. Twin studies suggest a potential bidirectional relationship between cannabis use and later development of depression, but more extensive research with larger samples is required to establish more definitive conclusions. Additionally, individuals with bipolar disorder tend to have higher rates of cannabis use and CUD compared to the general population (Hasin & Walsh, 2020). In this regard, the current study will be a great contributor.

### **Cannabis Addiction and Anxiety**

Anxiety is generally more future-oriented and global, referring to the state in which an individual is in-proportionately apprehensive, tense, and uneasy about the prospect of something going to be terrible and from which escape might be difficult. Generally, anxiety becomes a source of clinical concern when it reaches such an intense level that it interferes with the ability to function in daily life, as a person enters a maladaptive state characterized by some extreme physical and psychological reactions. These intense, irrational, and incapacitating experiences are the basis of the anxiety disorders (Richard & Krauss, 2003).

Anxiety Disorders affect about 40 million American adults age 18 years and older (about 18%) in a given year, thus making them fearful and uncertain. It is opposite to the relatively mild, brief anxiety caused by a stressful event (such as speaking in public or a first

interview), anxiety disorders last at least 6 months and can get worse if they are not treated. Anxiety disorders can also occur along with other mental or physical illnesses, including alcohol or substance abuse, and diabetes, which may mask anxiety symptoms or make them worse. In some cases, these other illnesses need to be treated before a person will respond to treatment for the anxiety disorder (Kessler et. al., 2005).

Anxiety has three components i.e, affective/emotional, cognitive and behavioral. The emotional effects of anxiety may include feelings of apprehension or dread, trouble concentrating, feeling tense or nervous, forestalling the worst, touchiness, agitation, watching (and waiting) for signs (and occurrences) of danger, and, feeling like the mind's gone blank comes under cognitive aspect (Smith, 2008). According to Barker (2003), the behavioral effects of anxiety may include withdrawal from situations that have motivated anxiety in the past. In this regard, the current study will be a great contributor.

Anxiety is frequently described as an acute cannabis effect, research studies have shown that people who use cannabis regularly are more likely to experience anxiety symptoms and disorders compared to those who do not use cannabis (Crippa et al., 2009; Halladay et al., 2020; Mammen, 2018). Furthermore, it is observed that heavy or problematic cannabis use was moderately related to anxiety (Kedzior & Laeber, 2014).

Given that those who experience severe anxiety reactions when using cannabis are unlikely to become regular cannabis addicts, it is perhaps not surprising that few of these very long-term users experienced unpleasant symptoms (Goodstadt et al., 1986). According to research by Milich and colleagues, regular cannabis addicts experience more anxiety than non-users or experimenters (Milich et al, 2000). Cannabis use by male army draftees who

satisfied the criteria for dependency or abuse was associated with higher levels of anxiety than usage by less heavy users (Troisi et al., 1998).

However, research of commune members indicated that neither the quantity nor the most recent use of cannabis was linked to elevated anxiety (Zablocki et al., 1991), however, the most recent usage was linked to elevated anxiety in "very introspective" people. A moderate univariate correlation was detected.

Crippa and others, 2009 one of the primary signs of cannabis withdrawal syndrome is anxiety (Bonn-Miller et al., 2007; Haney, 2005). It normally begins between the second and sixth day, and it lasts for four to fourteen days (Budney et al., 2004). These consequences are equivalent in length and intensity to cigarette withdrawal syndromes and other withdrawal syndromes, which frequently cause dependence to develop and make quitting difficult (Vandrey et al., 2005). Regular cannabis addicts appear to experience anxiety at higher levels than non-users, but this does not necessarily mean that they have an anxiety problem. According to a recent study, teenage cannabis dependence is associated with higher levels of anxiety and psychological distress (Dorard et al., 2008).

In two villages in Australia's northern territories, a similar outcome was discovered (Clough et al., 2005). The authors discovered that as cannabis usage among cannabis addicts grew, so did the intensity of symptoms within the "anxiety-dependency" cluster in those users (Clough et al., 2005). A significant percentage of participants showed signs of anxiety problems prior to the onset of cannabis dependency, which may indicate that some of them were self-medicating with cannabis as an anxiety reliever (Agosti et al., 2002). According to

a recent study, social anxiety disorder is a separate risk factor for cannabis dependency, which is consistent with this idea (Buckner et al., 2008).

Another recent prospective longitudinal study of 1709 teenager revealed that cannabis dependency and use were strongly linked to an elevated risk of developing panic attacks and panic disorder (Zvolensky et al., 2008). It was found that adolescent females who used cannabis frequently had a twofold increased risk of later developing anxiety and depressive disorders, and daily cannabis usage had a fourfold increased risk (Patton, 2002).

Moreover, although certain data indicate the possible therapeutic advantages of medical cannabis for individuals with PTSD, these findings are clouded by the potential for increased cannabis abuse and potential long-term adverse effects. As a result, it is essential to acknowledge the heightened risk of Cannabis Use Disorder (CUD) in clinical settings, considering any potential therapeutic benefits of cannabis for anxiety (Bilevicius et al., 2019).

### **Cannabis Addiction and Stress**

The term stress is commonly used for an inclusive range of physiological changes, psychological states, and environmental burdens in the health/illness literature (Linas, 1982). Psychologists have been studying stress and its impact on psychological states and on physical health as well. It is a type of negative sensitive experience attended by liable biochemical, physiological, cognitive, and behavioral changes that are directed either toward changing the stressful event or accommodating to its effects in a given context (Taylor, 2003).

Stress refers to a kind of undesirable emotional experience whenever there is some threat in the environment. This emotional reaction may include heightened physiological provocation due to increased reactivity of the sympathetic nervous system in the presence of any stressor. The stressor is the threatening event itself, which may also be called stressful life event. When a person experiences stress, he or she is likely to try to reduce this unpleasant feeling. Making a struggle or an effort to reduce stress is called coping. It seems that when coping is unsuccessful, and the stress does not decrease, the individual may seek clinical care for medical or psychological problems that have developed as a result of the constant physiological arousal caused by chronic stress (Richard & Krauss, 2003).

Stress has been defined as a relationship between a person and their environment that is deemed to be beyond the person's capacity for coping and has the potential to jeopardize the person's wellbeing (Lazarus & Folkman, 1984). In the United States, young adults report some of the highest levels of stress and its symptoms (American Psychological Association, 2015). When immediate environmental factors are perceived as dangers, physical, mental, or emotional tension known as stress results (e.g., problems at school, financial strains, and relationship difficulties; Sapolsky, 2004). The use of cannabis as a coping mechanism for stress and negative emotions has been linked to a number of undesirable effects, including greater rates of cannabis-related issues (Simons et al, 2005; Lee et al, 2007).

Furthermore, it has been shown that coping mechanisms modulate the relationship between stress and cannabis-related difficulties, which include negative social, professional, health, financial, legal, and/or other personal consequences of cannabis usage (Spradlin & Cuttler, 2019). In comparison to non-users, persons who use cannabis for coping purposes

(i.e., to deal with stress and other issues) have worse mental health, and more discomfort (Brodbeck et al, 2007).

It has been observed that, people use drugs for social and recreational purposes, to maintain and increase positive internal states, to deal with stress, and/or to lessen or avoid aversive internal states (Goeders, 2004; Johnston & O'Malley, 1986; Sinha, 2005). Despite the fact that cannabis usage has a number of risk factors (Bree & Pickworth, 2005; Von Sydow et al., 2002) and a number of purposes (Simons et al., 2000).

It is commonly known that stress and substance abuse are related (Goeders, 2004; Sinha, 2005; Turner & Lloyd, 2003; Wills, 1990). There hasn't been a thorough analysis of the research on the relationship between stress and cannabis use, though. Before ever using the drug, people may learn stress-reduction expectations from others, which may be reinforced by the social context of use as well as the physiological consequences of the substance (Schafer & Brown, 1991). Cannabis usage in stressful conditions may result in negative reinforcement, which could make the substance more alluring in the future under similar stressful conditions. Early life stress may also make people more likely to associate with troubled, drug-using friends who make it easier for drugs to be available and accepted by society (Hundleby & Mercer, 1987; Wills et al., 2006).

Cannabis appears to stimulate the hypothalamic-pituitary-adrenal (HPA) axis (Brown & Dobs, 2002). Chronic cannabis abusers have been shown to have changes in the corticolimbic circuits that control reward and stress (Eldreth et al., 2004), and recent cannabis use has also been shown to reduce frontal cortical activation in cocaine addicts during emotional stress. Numerous researches show that cannabis use as a stress-coping method is

widespread and deliberate. Cannabis use is linked to a number of stress-related issues, including traumatic stress, bad life experiences, and family dysfunction. It seems that stressful life events, especially those that happen early in life, may heighten distress, raise susceptibility to stress, and lead people to experiment with cannabis and take more drastic measures (Li, Milivojevic, Constable, & Sinha, 2005).

## **Cannabis Addiction and Marital Adjustment**

### **Marital Adjustment**

Marriage can be described as a socially and legally recognized relationship between a man and woman that allow acceptable sexual relations, childbearing, and establishes a division of labor between spouses (Vangelisti, 2004). According to Kaplan and Maddux (2002) marital satisfaction is an individual marital experience which can only be assessed by each person in response to the degree of marital happiness. They believe that, it depends upon the individual's expectations, needs and wishes in their marriage. This satisfaction could be addressed both from the perception of wife toward the husband or the husband toward the wife.

Different studies regarding marital relationships have gained attention from different perspectives. A marriage is considered as good and successful when there is a working partnership based on love and mutual respect, as it becomes an important source of happiness in people's lives. Marital adjustment is the state in which there is an overall feeling of happiness and satisfaction with marriage and with life partner as well (Veenboven, 1983). Being a universal foundation substantial reasons for marriage in today's society are love, comradeship, to develop a family, to have kids, to gain social approval, and for expectation fulfillment. In the Western countries for keeping a romantic relationship is the most frequently given explanation for marriage (Knox, 1985).

Most couples, when they enter into a marriage system, have explicit and implicit expectations of what marriage would be. Some of these expectations are realistic and others are probably unrealistic. Some are based on the relationship with the spouse; others develop from earlier experiences of socialization process. A happy and successful marriage becomes a good rewarding experience of life. It is just like heaven on earth. It makes a person to feel tolerable, satisfied, desired, liked, approved, and completed to a degree which is not available in any other human relationship (Veebhoven, 1983).

In Pakistan, marriage is a life-long commitment that demands obligation and sacrifice from the women and there is little room for failure in a marriage in the established norms of Pakistani society (Qadri et al., 2005). The divorce rate in Pakistan is 0.3 per 1000 population (Khan & Raza, 1998) which is comparatively low as compared to Western countries. Menniti and Palomba (1994) reported a rising divorce rate in Italy from 3% to 8% during 1980-1991 mainly due to instability in marital conditions, where marital dissatisfaction is a major cause.

Usually, most marriages show a decline in satisfaction over time. There are plenty of reasons for marital unhappiness comprising of problems of children, communication-style differences, religious and/or ethnic differences, familial abuse, health and economic issues, differences of opinion, illness, psychological problems, and so on (Bradbury, Ficham, & Beach, 2000). For most individuals, the highly intimate, most meaningful and fulfilling aspect of their social lives revolve around their marital relationships. It can be suggested that the marriage relationship is a multidimensional phenomenon. A great deal of research has been focused on marriages and the way in which couples interact (Gottman & Levenson, 1992; Levenson & Gottman, 1983; Revenstorff et al., 1980).

## **Theoretical Models of Marital Satisfaction**

There are number of studies of marital satisfaction, since the classic 1938 work predicting success, achievement, and failure or breakup in marriage (Burgess & Cottrel, 1939). Some theoretical models of marital satisfaction are as follows.

### **Social Exchange Models**

Social exchange theories of marriage explain the marital relationship as an economy of reciprocal exchange of needed and valued commodities, such as companionship, sex, sharing of household labor, care giving and nurturance, and opportunities for giving care and nurturance to another person (Lewis & Spanier, as cited in Udry, 1983). It is assumed that the social relationships are based on an exchange of some desirable behaviors (which can be considered as reinforcements) and saw this factor as the basic motivator for the initiating and sustaining of social relationships.

### **Role Expectation Models**

It is generally believed that marital satisfaction depends largely on the ability of the marital partner to define and enact mutually satisfying marital roles. The basic assumption of this model is that marital happiness seems to be congruent between the role expectation of one spouse and the role performance of the other spouse than to any specific pattern of roles (Lewis & Spanier, as cited in Udry, 1983). It is basically concerned with how does one perceives the actions and activities of others, according to his own frame of liking and disliking, and his own role-desirability and expectation. This theory states that when an individual indulge himself in those activities which are according to the expectation of his fellowmen, the activities performed by him are considered acceptable, and those which are

contradictory with the already existing system are dejected, or gain less approval, or sometimes strongly disliked. In other words, a husband or wife is satisfied to the extent that he or she feels the spouse is satisfying certain role expectations.

Rollins and Galligan, as cited in Twenge, Campbell, & Foster, (2003) argue that adding children does not necessarily decrease marital quality if role expectations are clear, reasonable, and are in accordance with the norms of a specific culture.

### **Cognitive Model**

Cognitive theories describe behavior in relationships as associated with belief systems, learned expectancies, attribution style, and many more. The partners may perceive their partners' behaviors as positive or negative regardless of the degree of positiveness judged by skilled outside observers as they are directly affected by this relationship (Floyd & Markman, 1983).

### **Family Lifecycle Perspective**

Rollins and Galligan, (as cited in Twenge, Campbell, & Foster, 2003) recommend that additional variance in marital satisfaction may be explained by role expectations, role accumulation, role strain, and perception of role performance. They believe that marital quality and stability may be maximized during the course of the family life cycle by altering role expectations and monitoring the accumulation of roles and resulting role strain.

Cannabis addiction can give rise to communication difficulties within a marriage. Regular cannabis use may result in impaired cognitive function, diminished attention, and reduced memory, making it challenging for the addicted individual to effectively

communicate with their partner. This addiction can create emotional distance between partners, with the struggling individual neglecting their partner's needs, leading to strain in the relationship. If one partner develops an addiction without the other's knowledge or consent, it can lead to feelings of betrayal and a breakdown of trust.

Additionally, cannabis addiction can impose a significant financial burden on the household due to increased spending on drugs and potential work performance issues, leading to stress and conflict. If the couple has children, the addiction can affect their ability to parent effectively, with imbalanced responsibilities and emotional availability concerns. Moreover, cannabis addiction can have adverse effects on the addicted individual's physical and mental health, hindering their ability to be a supportive partner in the marriage.

Research has shown that cannabis addiction can have significant detrimental effects on communication within a marriage. Frequent cannabis use can lead to impaired cognitive function, reduced memory, and diminished attention, making it challenging for the addicted individual to engage in effective and meaningful communication with their partner (Volkow et al., 2016a). This addiction can create emotional distance between partners, as the addicted individual may become preoccupied with obtaining and using cannabis, neglecting their partner's emotional needs (Schafer et al., 2019).

Moreover, when one partner is struggling with cannabis addiction, the other may feel unsupported, emotionally disconnected, or even betrayed, leading to strain on the relationship (Stanton & Shadur, 2016). The financial burden associated with cannabis addiction, due to increased spending on drugs and potentially impaired work performance, can exacerbate stress and conflict within the marriage (Hall & Lynskey, 2016).

Furthermore, if the couple has children, cannabis addiction can impact the ability to parent effectively, resulting in imbalanced parenting responsibilities and a lack of emotional availability for the children (Connell et al., 2019). Overall, cannabis addiction can lead to both physical and mental health issues for the addicted individual, further affecting their overall well-being and ability to be a supportive partner in the marriage (Hasin et al., 2017).

## **Cannabis Addiction and Social Adjustment**

### **Social Adjustment**

The ability to adjust to changes in one's physical, vocational, and social environment is known as adjustment. In other words, adjustment is the behavioral process of resolving incompatible demands or needs that are impeded by environmental challenges. People adapt to their surroundings on a daily basis. Social adjustment typically involves the interaction between individuals i.e., in peers, in family, in social gatherings, and in work-related settings.

According to Crick and Dodge, 1994 social adjustment is referred to as the extent to which a person exhibits appropriate social behavior and adjusts to their immediate social environment. Other self-view categories, including self-efficacy, that have an impact on the nature of social connections are thought to be built on self-esteem (Kernis et al., 1989). It has also been acknowledged that psychological elements like self-esteem, social self-efficacy, and anxiety affect social adjustment. Studies on self-esteem have demonstrated that how people view themselves affects how they adjust socially, academically, and emotionally (DuBois et al., 1998).

There are mainly three social adjustment behaviors that represent a person's performance in social contact are asocial behavior, peer exclusion, and interpersonal skills. Peer exclusion refers to being rejected by one's peers or by a group of peers; asocial behavior

is characterized by a low social approach motion (Ladd & Profilet, 1996). The interpersonal skills is defined as sharing, helping others, and cooperating with others (Gresham & Elliott, 1985). These three factors are frequently employed as indicators of societal adjustments (Sette et al., 2016; Ooi et al., 2018; Hipson et al., 2019).

As cited in ("Interpersonal Relationships," n.d.) social adjustment is the achievement of balance in social relationships usually aided by the appropriate application of social skills. Social adjustment also known as the adjustment between the interpersonal relationships.

### **Types of interpersonal relationships**

**Kinship Relationships:** Being connected to someone else through blood (consanguinity), such as being a parent, or via marriage (affinity), such as being an uncle by marriage or an aunt by marriage, are examples of kinship ties, which include familial bonds.

**Formalized intimate relationships:** Intimate or long-term relationship that have been formalized by law and public ceremony, such as marriage and civil union

**Non-formalized intimate relationships:** Other person is frequently referred to as a lover, boyfriend or girlfriend (not to be confused with just a male or female friend), significant other, or loving partner in non-formalized intimate relationships or long-term relationships such as loving relationships or romantic relationships with or without living together.

**Casual relationships:** Relationships that last longer than one-night stands and are only based on sexual conduct are referred to as casual relationships, and those involved may be referred to as friends with benefits when only considering sexual partners or sexual intercourse.

**Platonic love:** Especially in situations where it would be easy to think differently, platonic love is a loving relationship in which the sexual aspect does not exist. In situations where it would be easy to think differently, platonic love can be particularly valuable. For example, in situations where two people of opposite genders work closely together, it may be tempting for them to pursue a romantic or sexual relationship. However, by choosing to cultivate a platonic love instead, they can maintain a professional and respectful relationship that is based on mutual trust and admiration.

**Friendship:** Friendship is a relationship between two people that is characterized by their shared feelings of love, trust, respect, and unconditional acceptance. For further information, see internet friendship and pen buddy.

Cannabis addiction can have significant effects on social adjustment, it can lead to increased social withdrawal, strained relationships, negative impacts on job and school performance, financial difficulties, and social stigma. The behavioral and emotional changes associated with addiction can create conflicts and erode trust, isolating individuals from their social support networks. This reduced support system may be due to concerns about the person's behavior or their refusal to seek help (Volkow et al., 2016b; Hasin et al., 2015).

Cannabis usage is on the rise, and this has prompted a number of difficult questions regarding its potential health implications and how society should react (Fergusson et al., 2002; Hall & Solowij, 1998; Hall & Babor, 2000; Johns, 2001). Concerns about the degree to which cannabis usage is linked to an increased risk of a variety of psychosocial problems are among the topics surrounding the effects of cannabis use. Cannabis use is prevalent in rural Indigenous settings, and it has significant negative impacts on health and social

adjustment, according to a recent five-year study of teenagers and young adults in three remote communities in Arnhem Land, Australia (Lee et al., 2009; Clough et al., 2004; Clough et al., 2006).

In addition to having biological, psychological, and social repercussions on the user, their family, and the community, substance use disorder also has public, legal, and administrative repercussions (Bekircan & Tanriverdi ; Zmen & Kubanç, 2013; Ztaş, 2012). Roles cannot be completed within the family system because of the system's impairment brought on by substance abuse, and as a result, problems within the family may arise. Because of this, these people have high rates of divorce and separation (Tarhan, 2014). Substance use disorder negatively impacts people's lives and causes marital problems (Erbek et al.,2005). Cannabis abuser are more likely to claim poorer levels of education, income, and relationships than non-users, as well as being unemployed, reliant on welfare, single, and living alone (Vanderpol et al., 2013; Degenhardt., 2001; Fergusson & Boden, 2008). Present study will highlight these problems with respect to Pakistan.

In light of all of these findings, it may be concluded that drug usage may negatively affect marriage and family relations (Cranford et al., 2011). It was explored that the patient group received marriage and family therapy, developed strong bonds and assisted them in developing better connections with their spouses and kids (O'Farrell, 2011).

There are several options to consider while looking into high-quality programs for addiction therapy. Multiple degrees of therapy, including detox, inpatient, residential, partial hospitalization, intense outpatient, and sober living, are frequently offered by addiction rehabilitation facilities. Addiction treatment centers include extra services in these recovery

programs to help patients advance in their recovery. The services offered vary depending on the location, however conventional therapies are frequently accessible (Restore health & Wellness, 2021).

### **Traditional Counseling/Approaches**

Traditional counseling, also known as conventional or classical counseling, refers to therapeutic approaches and techniques that have been established and practiced over time. These approaches are typically based on well-established psychological theories and principles. Traditional counseling methods often involve face-to-face interactions between a trained counselor or therapist and a client seeking help for personal, emotional, psychological, or behavioral issues (Corey, 2017).

Traditional counseling/approach for the treatment of substance addiction refers to the conventional and established methods used by mental health professionals to help individuals overcome their addiction to drugs or alcohol. This approach typically involves psychological interventions and therapeutic techniques to address the underlying issues and behavioral patterns associated with substance abuse.

According to “National Institute on Drug Abuse (NIDA)” (n.d.) in traditional counseling, licensed professionals such as psychologists, psychiatrists, social workers, or certified addiction counselors work with clients individually or in group settings to achieve the set goals. Following are different approaches/techniques that comes under traditional counselling:

- **Assessment:** A thorough evaluation of the individual's substance use history, overall health, and mental state to understand the severity of the addiction and identify any co-occurring mental health disorders.
- **Goal Setting:** Collaborating with the client to set realistic and achievable goals for the treatment process. These goals may include achieving sobriety, improving overall well-being, and developing healthy coping strategies.
- **Psychoeducation:** Providing the client with information about addiction, its effects on the brain and behavior, and the potential consequences of continued substance abuse.
- **Cognitive-Behavioral Therapy (CBT):** One of the most common therapeutic techniques used in traditional counseling, CBT aims to identify and change negative thought patterns and behaviors associated with addiction. This approach helps individuals develop healthier coping mechanisms and skills to manage triggers and cravings.
- **Motivational Interviewing:** A client-centered approach that helps individuals explore their own reasons for change and enhances their intrinsic motivation to overcome addiction.
- **Relapse Prevention:** Learning skills and strategies to identify and manage triggers and high-risk situations that may lead to a relapse.
- **Supportive Group Therapy:** Participating in group counseling sessions where individuals with similar struggles share their experiences, offer mutual support, and learn from each other's successes and setbacks.
- **Family Therapy:** Involving family members in the treatment process to address family dynamics, communication issues, and support the client's recovery.

- **Aftercare Planning:** Develop a comprehensive plan to support the individual's recovery after completing the counseling program, which may include ongoing therapy, support groups, or other community resources.

Programs have traditionally been categorized for addiction treatment into a number of main kinds or modalities. Numerous programmes nowadays, do not neatly fit into established categories for drug addiction treatment due to the ongoing evolution and diversification of treatment methodologies and individual requirements. The majority, however, begin with medically supervised detoxification and withdrawal, which is frequently regarded as the initial phase of treatment.

### **Disease Model**

Over the past two decades, evidence has grown more and more in favor of the idea that addiction is a brain condition. It's possible that this is due to the fact that the abnormal, impulsive, and compulsive behaviors that characterize addiction have not been conclusively connected to neurobiology, casting doubt on the fundamental notion that substance abuse is a brain disease. The assumption that substance abuse is a brain illness is still debatable despite the fact that the brain disease model of addiction has led to effective preventive strategies, treatment interventions, and public health policies to address substance-use disorders.

Reviewing studies on the deterioration of brain regions responsible for executive functions such as decision-making, inhibitory control, and planning, the strengthening of conditioned responses and stress reactivity, and the desensitization of reward circuits, which reduces motivation to engage in daily activities and the capacity to experience pleasure. (Volkow, Koob, & McLellan, 2016).

According to the disease model of addiction, addiction has biochemical, neurological, genetic, and environmental roots (McLellan et al., 2000). According to the conventional medical paradigm of disease, an aberrant condition must only be present in order for the person who is ill to experience discomfort, dysfunction, or distress.

According to the modern medical concept, mesolimbic brain alterations are partially to blame for addiction (Leshner, 1997). Despite understanding of the mechanisms underlying these entities, the medical model also considers the possibility that this condition may be caused by additional biological, psychological, or societal entities.

The development and maintenance of total abstinence from all addictive behaviors and substances constitute recovery. The sickness is stopped through abstinence. It doesn't move after being detained. The illness model stresses the value of peer support because total abstinence is challenging to attain.

It is apparent that peer support is beneficial in the recovery from various diseases and disorders. In organizations like Alcoholics Anonymous, addicts and alcoholics help one another. They encourage and inspire one another by sharing their own stories of addiction and recovery. This kind of mutual support makes people feel more hopeful. As a result, individuals are more driven to make essential rehabilitation progress (Sobell, 2013). Critics of the disease model, in particular those who believe in the life-process model of addiction, claim that stigmatizing those who are diagnosed as addicts prevents them from learning self-control.

Furthermore, the disease model and its implications for treatment interventions are the subject of much (and frequently acrimonious) dispute. In a nutshell, it is maintained that there is no one constellation of alcohol-related issues that can be classified as alcoholism

(there are a variety of issues), that addiction and its fundamental components are not irreversible, and that the progression of the issue is not predetermined. The disease model's detractors also point out that because individuals prefer to believe that outside professionals must treat the condition and not themselves, self-responsibility can be avoided (Armor, Polich, & Stambul, 1978). Hence, role of therapist is very essential. This is also a key point of the research.

### **Minnesota Model**

The Minnesota Model, often known as the abstinence model, of addiction therapy was created in the 1950s by two young men who would go on to become psychiatrists and psychologists, respectively, and neither of them had any prior experience treating addicts or alcoholics. Before it spread over the entire country, the strategy was initially adopted by the Hazelden Foundation, a modest not-for-profit organization. The cornerstone of this novel method of addiction treatment was the coordination of skilled professionals and untrained (recovering) staff members around the AA principles (AA). A specialized treatment programme with active family interaction and involvement in AA both during and after treatment was provided in a 28-day inpatient setting (Anderson et al., 1999).

The Minnesota Model approach is defined typically by a comprehensive and continuing examination of all client-related factors and multimodal therapy strategies. It could consist of techniques like family education and support, group and individual treatment, and others. A multidisciplinary team of experts, including counsellors, psychologists, and nurses, plans and supports each client's treatment programme. The team members meet with the client one-on-one to conduct an interview, go over the client's test results, and go through the questionnaire the client filled out. The team meets without the

client after each team member has seen the client to analyse the findings and create a treatment plan with individualized goals and objectives. It is assumed that abstinence is a must. The client can learn new ways of living without alcohol and other drugs like cannabis with the help of the tools and context provided by the treatment. This kind of therapy can be applied either as an inpatient or as an outpatient. The Minnesota Model's guiding principles are inspired by Alcoholics Anonymous (AA). Cognitive-behavioral therapy, education/rehabilitation from a physical health issue (such as recovery from a heart attack), and learning to live with any chronic sickness are the counselling techniques that are the most comparable to one another. The main objectives are increased quality of life and lifelong abstinence from cannabis and other mood-altering substances. Applying the 12-step philosophy's principles—which include regular gatherings with other recovering individuals and adjustments to daily behaviors—will help you attain this aim. The ultimate objective is to alter one's personality or one's fundamental ways of feeling, thinking, and behaving in the world. This shift is described in the model as a spiritual experience (Owen, 2003).

The Minnesota model, which asserts that alcoholism is a disease marked by loss of control over drinking and places an emphasis on a 12-step approach to recovery, is comparable to traditional disease-model treatment (Miller & Meyers, 1999). This can be similarly applied to all substances and respective psychological treatments.

### **12-Step Programme**

A set of guiding principles detailing a process for overcoming addiction, compulsion, or other behavioral issues is known as a 12-step program, first offered as a method of alcoholism recovery by Alcoholics Anonymous (AA) (VandenBos, 2007). This method alters an addict's perceptions of their interactions with others and with themselves. Attending

meetings, reflecting on oneself, and picking up new coping mechanisms all help to bring about this altered perspective.

The client's perception of how they relate to others and to themselves changes as a result of this process. Numerous alcoholism, drug addiction, and dependency issues have been addressed using 12-step methodologies. With millions of members worldwide, over 200 self-help groups known as fellowships use the twelve-step principles of recovery. Addicts who did not understand the nuances of alcoholism founded Narcotics Anonymous (Borkman, 2008).

The 12-Step concept alludes to a certain understanding of the healing process. It emphasizes the significance of acknowledging addiction as a disease that can be suppressed but never cured, encouraging personal development and spiritual growth, reducing self-centeredness, and helping those who are addicted (for example, by sharing success stories of recovery in group meetings and sponsoring new members) (Humphreys et al., 2004). Self-help groups built around this philosophy, according to Donovan et al., 2013, lay out 12 sequential tasks, or steps, that substance abusers should complete during the recovery process. According to these steps, substance abusers must acknowledge their helplessness in the face of alcohol and drugs, take a moral inventory of themselves, accept the nature of their wrongdoings, establish a list of people they have affected, and plan for their future.

Participation in such groups is intended to give people encouragement to stay drug-free, a social network to connect with (the "fellowship"), and a list of 12 principles to follow in the recovery process (Kaskutas, Bond, & Humphreys, 2002). What has been dubbed the 12-Step "six pack" contains the general principles for recovery based on this philosophy:

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Avoid alcohol and drugs, attend meetings, solicit assistance, find a sponsor, join a group, and become active (Caldwell & Cutter, 1998).

The three components of the human structure—physical, mental, and spiritual—are symbolically reflected in the twelve-step programme. It is believed that the issues the groups face take on different forms in each level. For alcoholics and addicts, the bodily reaction that resembles an allergic reaction and causes the need to take substances again and again after the initial use best describes the physical dimension. When a person repeats a compulsive behavior after a period of abstinence, it is said that they are suffering from a mental obsession. This is because they are either aware that the repetition will lead to an inability to stop or they are under the impression that the repetition will have a different outcome.

All 12-step programmes view self-centeredness as the "spiritual malady," or ailment of the spiritual dimension (Kurtz & Chambon, 1987; Ronel, 2000). Working through the steps is meant to replace self-centeredness with a developing moral awareness, a desire for self-sacrifice, and constructive, altruistic behaviour (Ronel, 2000). In twelve-step fellowships, spiritual awakening typically happens gradually over time; however, there are certain exceptions where members have a quick spiritual awakening (Alcohol Anonymus, 2008).

In the highly developed medical world of today, where there are therapies for a variety of problems, there are many possibilities for feeling better. Addiction cannot be cured unfortunately, but it can be controlled with time and a variety of coping techniques. Traditional treatment is often used in the realm of rehab and other addiction recovery

programmes today. This is due to the fact that many specialists are incorporating more modern techniques and strategies into their curricula.

Identifying the sickness and treating it with medication is a common practice in traditional therapies. By combining this approach with traditional therapy including medication, counselling, and lifestyle changes, many can recover. The majority of conventional treatments begin with acute or subacute detoxification. This therapy, which is carried out under a doctor's supervision, helps addicts get rid of the toxins that their substance abuse has left in their bodies. Medication is commonly consumed throughout this process to decrease the discomfort brought on by withdrawal. After detoxing, individuals should be routed to programmes for addiction treatment. They can then receive counselling and treatment while learning how to live a sober life after their addiction. However, many of these programmes employ more modern techniques to overcome addiction. CRA is the most popular and successful among the treatment methods.

### **Community Reinforcement Approach (CRA)**

The Community Reinforcement Approach (CRA) is a cognitive-behavioral intervention that was founded on the belief that environmental contingencies play a critical role in encouraging or discouraging substance abuse (Hunt & Azrin, 1973). The original community reinforcement approach (CRA) uses operant conditioning to help people learn to reduce the power of their addictions and enjoy healthy life (Azrin, 1970). Accordingly, CRA utilizes community (i.e., familial, social, recreational, and occupational) reinforcers to support change in an individual's drinking or drug using behaviors. In essence, the goal is to

rearrange environmental contingencies such that sober behavior becomes more rewarding than substance abusing behavior. This comprehensive intervention blends operant conditioning with a social systems approach to address multiple problem areas (Hunt & Azrin, 1973). Multiple research reviews and meta-analyses of the treatment-outcome literature have shown CRA to be among the most strongly supported treatment methods for drug dependence (Meyers et al., 2011; Finney & Monahan, 1996; Holder et al., 1991; Miller et al., 1995, 2003).

Some of the more recent alcohol studies replicated this success with larger, ethnically diverse samples (Smith, Meyers, & Delaney, 1998). In the four meta-analytic reviews of treatments for alcoholism conducted over the past 12 years, CRA has consistently placed among the top programs. Depending on the review, it has been ranked from the first to the fifth position out of a group of 30–50 interventions (Finney & Monahan; 1996; Holder, Longabaugh, Miller, & Rubonis, 1991; Miller et al., 1995; Miller, Wilbourne, & Hettema, 2003)

The Community Reinforcement Approach (CRA) is a behavioral treatment designed for individuals with substance-use issues. Its core principle is to make a drug-free lifestyle rewarding, encouraging individuals to consistently choose it over substance use. CRA involves exploring the client's social circle (family, friends, work, etc.) to identify alternative sources of reinforcement that can compete with substance use. Therapists collaborate with clients to set life goals and teach them the necessary skills to achieve those goals. It has strong empirical evidence supporting its effectiveness. It has been successfully used with diverse populations and various types of drugs (Roozen & Smith, 2020; Bischof, 2016).

CRA programs appear appropriate for a wide range of clients. It has been shown effective with clients having anywhere from mild to severe alcohol problems, and with goals of either reduced drinking or abstinence. Furthermore, CRA has been successful in inpatient, outpatient, and day treatment settings, as well as in both rural and urban environments (Azrin, 1976; Azrin et al., 1982; Hunt & Azrin, 1973; Smith et al., 1998). Another strength of CRA is its flexibility.

The program contains a manual of procedures that can be selected from and tailored to meet a client's background and goals. For example, an unemployed client would likely find the job-training component to be of immediate value. A client whose social relationships are rapidly deteriorating due to alcohol abuse might benefit from CRA's communication skills training, or its relationship therapy. As noted, the entire set of CRA procedures are not necessarily introduced for every client. Exceptions to this are the assessment and treatment planning procedures, which typically are used each time as a starting point.

CRA is a method of treatment applied on cannabis addicts in this study. For implementation of CRA, a CRA Performa will be followed. This comprises of following protocols:

- *CRA Functional Analysis*: A functional analysis is a method for identifying the framework in which substance abusing behavior occurs. The overall objective is to lay the foundation for a plan that eventually will help the client access psychological and environmental conditions which reinforce sobriety and discourage substance use (Azrin, 1976; Hunt & Azrin, 1973).

- *Sobriety Sampling*: sobriety sampling was developed as a gentle negotiation process for a time-limited period of sobriety (Azrin et al., 1982). During this period of abstinence, the necessary behavioral skills are taught and the reinforcing aspects of a drug-free lifestyle are emphasized.
- *CRA Treatment Plan*: Two forms provide the structure for the CRA treatment plan: the Happiness Scale and the Goals of Counseling (see Meyers & Smith, 1995; Smith & Meyers, 2001). The Happiness Scale is a brief evaluation of satisfaction in 10 areas of a person's life (e.g., job, personal habits, relationships). They then turn to the Goals of Counseling, which lists these same 10 areas and includes questions for each area about goals, strategies for obtaining them, and the projected time frame.
- *Behavioral Skills Training*: Areas of behavioral skills deficits typically become apparent that need to be addressed. The three main CRA skills training components are: (a) *Problem Solving*, (b) *Communication Skills*, (c) *Drink/Drug Refusal*.
- *Social/Recreational Counseling*: CRA counselors instead assist clients: in identifying new social activities and encouraging them to sample a few, in addressing the common concerns about socializing while sober, and in dealing with the problem of having a social life that is dominated by individuals who drink or use drugs. The objective was twofold: to help clients discover that life could be fun without alcohol, and to provide increased opportunities for clients to practice new social skills in a nonthreatening, low-risk atmosphere (Hunt & Azrin, 1973; Mallams, Godley, Hall, & Meyers, 1982).
- *Relapse Prevention*: This CRA process actually begins with the initial functional analysis, since triggers for episodes are outlined then. In anticipating situations with elevated relapse

potential, various behavioral skills are practiced as needed, such as drink refusal and problem solving (Meyers & Smith, 1995).

- *Relationship Counseling*: Given the CRA goal of making a client's "community" more reinforcing, it is often worthwhile to include the partners of clients in at least several therapy sessions so that the relationship can be enhanced. The Perfect Relationship form is modeled after the Goals of Counseling, and serves as a couple's goal-setting plan. The Daily Reminder to Be Nice is a method for gradually reintroducing small pleasant activities back into the relationship (Meyers & Smith, 1995; Smith & Meyers, 2001).

The Community Reinforcement Approach (CRA) is a therapeutic intervention used primarily in the treatment of substance use disorders, particularly alcohol and drug addiction. It is a behavioral treatment that focuses on creating a positive and supportive environment to reinforce healthy behaviors and discourage substance use. There are several factors that make the Community Reinforcement Approach more effective for instance:

**Multifaceted Intervention:** CRA is a comprehensive treatment that addresses various aspects of an individual's life, including social, vocational, and recreational areas. It aims to enhance overall life satisfaction and create a healthier lifestyle by offering alternative sources of reinforcement.

**Social Support:** One of the central elements of CRA is to strengthen the client's social support system. By involving family members, friends, or significant others, the approach seeks to create a supportive network that encourages positive behaviors and discourages substance use.

**Job and Recreational Counseling:** CRA incorporates vocational counseling and support to help individuals find employment or improve their job situations. It also encourages engaging in recreational and social activities that do not involve substance use, promoting a balanced and fulfilling lifestyle.

**Intrinsic Motivation:** CRA aims to enhance an individual's intrinsic motivation to change their behavior. By focusing on positive reinforcement and building a satisfying life without substances, individuals become more motivated to reduce or abstain from drug or alcohol use.

**Abstinence:** While the ultimate goal of CRA is abstinence, it also recognizes harm reduction as a step toward recovery. Incremental progress is acknowledged and reinforced to maintain individuals' motivation and commitment to positive change.

**Long-term Focus:** CRA is designed to be a long-term treatment, providing ongoing support and reinforcement to prevent relapse and support sustained recovery over time.

**Adaptability:** The Community Reinforcement Approach is adaptable to various cultural and individual differences, making it an effective treatment for a diverse range of clients.

Overall, CRA is a promising intervention for substance use disorders that seeks to create a positive and supportive environment, motivating individuals to make lasting changes in their lives and break free from the cycle of cannabis addiction.

### **Community Reinforcement Approach in other Regions**

CRA intervention has garnered significant recognition due to its proven effectiveness in addressing substance use disorders and alcohol dependence. Several countries have

embraced and extensively researched this therapeutic approach, leading to promising outcomes. Among the countries where CRA intervention has been adopted and studied are:

CRA is an evidence-based intervention for treating substance use disorders, and researchers in Spain have been investigating its effectiveness and applicability in their context. Numerous Spanish studies determined the effectiveness of the Community Reinforcement Approach (CRA), in the treatment of patients with cocaine and other substance use disorders i.e., (Garcia-Fernandez et al., 2019; Lopez-Goni et al., 2011; Fernández-Montalvo et al., 2008).

There have been research studies and applications of the Community Reinforcement Approach (CRA) in Sweden. Sweden, like many other countries, has shown interest in evidence-based interventions for treating substance use disorders, and CRA has been studied and implemented in various settings within the country. These researches highlight Sweden's engagement with CRA research and its commitment to exploring evidence-based treatment options for substance use disorders (Magill et al., 2016; Beck et al., 2014; Berglund et al., 2016).

The Netherlands is known for its contributions to addiction research and the implementation of evidence-based interventions like CRA. Some studies have explored the effectiveness of CRA in treating substance use disorders, particularly alcohol and cocaine dependence, in the Dutch context (Roozen et al., 2014; Blanken et al., 2015; Merckx et al., 2017; Kieft et al., 2020). These studies highlight the country's commitment to evidence-based approaches for addressing substance use disorders and improving addiction treatment outcomes.

CRA principles have been applied in addiction treatment centers and clinical practice in Norway. Mental health professionals and addiction counselors have used CRA techniques to assist individuals in their recovery from substance use disorders. Researchers and practitioners in Norway have adapted CRA to suit the local culture and context, ensuring that the intervention aligns with Norwegian societal norms and values. Norway has been active in exploring and implementing the Community Reinforcement Approach as part of its efforts to address substance use disorders and improve addiction treatment outcomes (Andersen et al., 2017).

CRA is an evidence-based intervention for substance use disorders, and researchers in Italy have been investigating its effectiveness and implementation in their country. Some of the research studies on CRA in Italy include (Ghirlanda et al., 2016; Caselli et al., 2012; Ghirlanda et al., 2013).

Hence, the Community Reinforcement Approach (CRA) is an evidence-based intervention for addiction treatment that focuses on modifying the environment in which an individual with substance use disorder lives. When considering its application in the Pakistani region, it becomes essential to understand the unique social and cultural context of the country.

Pakistan is a country with strong community and family ties. The extended family system is prevalent, and the well-being of an individual is deeply interconnected with the welfare of the family and community. Addiction can have a significant impact not only on the individual but also on their family members and the wider community. By incorporating CRA into addiction treatment programs in Pakistan, the focus shifts from solely targeting the individual to involving and engaging the support network around them.

One key aspect of CRA is reinforcing positive behaviors and motivations. In a collectivist society like Pakistan, where societal norms and communal ties play a crucial role, positive reinforcement from family, friends, and community members can be a potent motivator for individuals to abstain from substance use. By encouraging and rewarding sobriety, responsible behavior, and positive lifestyle choices, CRA helps create a supportive environment that reinforces healthy habits.

Additionally, CRA addresses employment and recreational needs. In Pakistan, access to stable employment and recreational activities can be limited in certain regions, leading to boredom, frustration, and increased susceptibility to substance use. By assisting individuals in finding employment opportunities and engaging in meaningful activities, CRA can fill the void left by addiction and offer a healthier and more fulfilling lifestyle.

Furthermore, CRA can help reduce the stigma associated with addiction. In many traditional societies, including Pakistan, there is a significant stigma surrounding substance use disorders. By involving family members and the community in the treatment process, CRA can raise awareness about addiction as a treatable medical condition, shifting attitudes from punitive approaches to supportive and empathetic ones.

Overall, the purpose for using the Community Reinforcement Approach in cannabis addiction treatment in the Pakistani region lies in its compatibility with collectivist cultural values and its potential to create a network of support that strengthens an individual's motivation to recover. By addressing the social and environmental factors that contribute to addiction, CRA offers a holistic and culturally sensitive approach to helping individuals overcome substance use disorders in Pakistan.

By carefully adapting CRA to Pakistani culture, it is possible to enhance its acceptance and effectiveness in addressing substance use disorders within the context of the country's unique cultural and social dynamics. Cultural adaptation is crucial in making evidence-based interventions relevant and accessible to diverse populations and improving their overall impact on public health.

### **CRA Versus Traditional Counseling/Approaches**

The Community Reinforcement Approach (CRA) holds significant importance when compared to traditional counseling/approaches for the treatment of cannabis addiction, specifically concerning mental health issues, marital satisfaction, and social adjustment. CRA's comprehensive approach aims to address the underlying psychological factors that contribute to addiction and helps individuals develop coping strategies to prevent relapse. By targeting cognitive distortions and maladaptive behaviors, CRA can lead to improved mental health outcomes and greater overall well-being. Additionally, CRA's focus on enhancing communication skills and problem-solving within the context of marital relationships can positively impact marital satisfaction, fostering a supportive environment for recovery. Moreover, by encouraging social integration, CRA assists individuals in building strong social networks, reducing isolation, and promoting healthier social adjustment. In contrast, traditional counseling may lack the tailored and multifaceted approach offered by CRA, potentially limiting its efficacy in addressing the complex interplay between addiction and mental health, marital dynamics, and social reintegration.

Numerous researches conducted over the past 25 years have shown that CRA is effective in treating alcoholism and other types of substance dependency. For alcohol-dependent patients receiving inpatient treatment, Hunt and Azrin (1973) contrasted CRA

with conventional disease-model treatment. Patients who underwent CRA performed significantly better than patients who received conventional therapy in that research. In actuality, there was essentially no overlap between the two groups' distributions on a number of outcome variables at the time of the follow-up. In comparison to patients who received traditional care, CRA clients showed significantly less and less frequent drinking, less days spent in institutions and more days working, and higher levels of social stability.

A comprehensive behavioral program for treating substance abuse issues is called the Community Reinforcement Approach (CRA). It is predicated on the idea that environmental factors can strongly influence whether drinking or using drugs is encouraged or discouraged. In order to aid clients in their rehabilitation, it makes use of social, recreational, family, and employment reinforcers. It aims to make living a clean lifestyle more satisfying than abusing drugs. Strangely enough, very few doctors who treat addicts are familiar with CRA, despite the fact that almost every assessment of alcohol and drug treatment outcome data puts it among the techniques with the highest scientific evidence of efficacy.

With inpatients (Azrin, 1976; Hunt & Azrin, 1973), outpatients (Azrin, Sisson, Meyers, & Godley, 1982); Mallams, Godley, Hall, & Meyers, 1982; Meyers & Miller, 2001); and homeless populations, the Community Reinforcement Approach (CRA) is a broad-spectrum behavioral programme for treating substance abuse issues (Smith, Meyers, & Delaney, 1998). It was also named as one of the best affordable alcohol treatment programmes currently accessible in three recent meta-analyses (Finney & Monahan, 1996; Holder, Longbaugh, Miller, & Rubonis, 1991; Miller et al., 1995). More than 25 years ago, the first study proving the value of CRA was carried out (Hunt & Azrin, 1973). 16 alcohol-dependent inpatients and matched controls participated in this trial where participants were

randomly allocated to either the CRA treatment or a more conventional program that concentrated on the 12 steps of Alcoholics Anonymous (AA). Participants in the CRA condition considerably outperformed the 12-step group at the 6-month follow-up, drinking at average of 14% of the follow-up days compared to 79% for the 12-step group. The duration of institutionalization and employment were also found to differ significantly in favour of CRA. Azrin conducted a second similar study of patients (1976). As before, persons receiving CRA treatment were more likely to report fewer days spent in institutions and more days working. It's significant that the CRA condition's abstinence rate remained at 90% at the 2-year follow-up. These studies offered convincing proof of CRA's efficacy since they followed sound scientific methodology. So, in current study CRA is applied over the cannabis addicts to see its effectiveness.

Important clinical ramifications result from the finding that people with cannabis use issues and other mental health issues were more likely to seek treatment. Comorbid anxiety and affective disorders are common among people seeking treatment for cannabis dependence, and if left untreated, these disorders may have an adverse effect on the success of that treatment. Cannabis dependence intervention research is a relatively new field, and there is little research on how mental health issues affect treatment outcomes (Degenhardt et al., 2001). Clinicians should be aware of the likelihood of comorbidity and should think about using easy-to-use screening tools for mental health issues. A more thorough intervention that targets the symptoms of anxiety and depression may be the subject of future research into therapies (Litt et al., 2005).

Archer et al., 2020 reviewed that different adaptations of the Community Reinforcement Approach and Family Training, tailored for various delivery methods and

addictions, have resulted in significantly different rates of treatment engagement for the identified patient. Among these adaptations, those that provide the most extensive support to the concerned significant other, including individual and group sessions, have shown the highest levels of success for the treatment of addiction.

Research suggests that the Community Reinforcement Approach (CRA) is a highly effective intervention for individuals with substance use disorders (SUDs). CRA's comprehensive, behavioral, and individualized approach has demonstrated significant advantages when compared to other standard treatments. Studies have indicated that CRA consistently leads to higher retention rates in treatment, longer periods of abstinence, and reduced rates of relapse compared to traditional treatment modalities (Meyers et al., 2012; Roozen et al., 2017). Moreover, CRA's focus on creating a positive and supportive environment through reinforcement strategies, vocational counseling, and family involvement has shown to be particularly beneficial in engaging patients in treatment and promoting lasting recovery (Smith et al., 2014).

The Community Reinforcement Approach (CRA) is an evidence-based approach specifically designed for the treatment of substance abuse, including cannabis addiction. Compared to traditional counseling, CRA offers several advantages when it comes to addressing mental health issues, marital satisfaction, and social adjustment in individuals struggling with cannabis addiction for example; -

- Tailored Approach: CRA is a specialized and structured treatment that focuses on the individual needs and challenges of each person. It targets the specific triggers and underlying factors contributing to cannabis addiction, such as cognitive distortions and negative thought

patterns. This personalized approach enhances the effectiveness of the therapy, leading to better outcomes in terms of mental health improvement.

- **Relapse Prevention:** CRA places a strong emphasis on relapse prevention, which is crucial in the treatment of addiction. It equips individuals with coping strategies, problem-solving skills, and healthy coping mechanisms to manage triggers and prevent relapse effectively. Traditional counseling might not always have a well-defined relapse prevention component, making CRA more suitable for individuals with cannabis addiction.
- **Evidence-based Techniques:** CRA incorporates evidence-based techniques that have been extensively researched and proven effective in treating substance abuse issues. These techniques often include cognitive restructuring, coping skills training, and assertiveness training. The evidence-based nature of CRA ensures that individuals receive interventions that are supported by scientific research.
- **Holistic Approach:** CRA considers not only the individual but also the broader social context in which the addiction is embedded. It addresses not only the addiction but also related issues that may impact mental health, marital satisfaction, and social adjustment. This holistic approach helps individuals better understand the complex interplay between addiction and their lives, leading to more comprehensive healing and recovery.
- **Strengthening Relationships:** Marital satisfaction can be affected when one partner struggles with cannabis addiction. CRA includes a component that involves the partner in the treatment process. This collaborative effort can help repair and strengthen the relationship, improving marital satisfaction and providing a supportive environment for recovery.
- **Social Support Enhancement:** CRA acknowledges the significance of social support in the recovery process. The therapy encourages individuals to build healthy social networks and

engage in pro-social activities. This emphasis on social adjustment fosters a sense of belonging and reduces feelings of isolation, which can be essential for the individual's mental well-being.

In conclusion, CRA offers a comprehensive and evidence-based approach to treating cannabis addiction that considers mental health issues, marital satisfaction, and social adjustment. Its personalized and relapse prevention-oriented approach, along with evidence-based techniques and a focus on social support, make CRA a valuable and effective treatment option compared to traditional counseling for addressing cannabis and other addiction-related challenges.

### **Social Context of Cannabis Use Scale**

It is observed that mostly drugs are being used in social context i.e., with large or small group of friends, in parties and in other social setting. Cannabis and other substances have been shown to increase the enjoyment of socializing, either by improving the quality of social interactions or by reducing subtle negative emotional states like social anxiety (Miller et al., 2015). Additionally, there is a reciprocal relationship, meaning that social settings can affect how people react to drugs. Alcohol and other drugs' direct effects can be affected by even the mere presence of other people, potentially leading to increased use. (Dimoff & Sayette, 2017; Shiffman et al., 2002)

The immediate environmental, chronological, and motivational elements that affect substance use behaviour are referred to as the social context (Beck, Thombs, Mahoney, & Fingar, 1995; Thombs, Beck, & Mahoney, 1993). In a study published in 2018, Wit & Sayette examined the evidence for two key causes of substance abuse: i) the impact of drugs

on social cues or interactions, and ii) the influence of social context on how people react to drugs. In a realistic setting, these elements are indivisible and intricately linked. Nevertheless, some of the mechanisms behind these intricate bidirectional relationships can be uncovered through well planned studies.

The emotional content and valence of the social context influence how drugs interact with social situations. Positive social situations, such being with friends or acquaintances, are likely to improve a drug's positive mood effects, but negative or stressful social situations, like job interviews, may lessen a drug's euphorogenic effects. In contrast, some medications may lessen anxiety brought on by unfavorable social situations, and these anxiolytic effects may make the medication more alluring to the user. It is likely that many naturalistic social circumstances (such as interacting with both friends and strangers) have a mixture of positive and negative emotional cues, making it challenging to differentiate these elements in intricate non-laboratory settings (Wit & Sayette, 2018).

The contribution of psychosocial and interpersonal elements, such as peer pressure and role modelling, which encourage drug use (Dimoff & Sayette, 2017; Quigley & Collins, 1999). There is strong evidence that social environments affect consumption through a variety of psychosocial processes, such as peer pressure, modelling, and the need to fit in, in both favorable and unfavorable social contexts (Beck et al. 2011; Collins & Marlatt, 1981; Cooper et al. 1979; Larsen et al 2012; Quigley & Collins, 1999). Social modelling of heavier consumption, for instance, causes other group members to drink more, and this effect is tempered by a number of factors, such as the participant's drinking history. It is likely that modelling can affect intake as well as the immediate, intoxicating effects of substances by perhaps influencing expectations (Wit & Sayette, 2018).

The social context, also known as the social environment, has been defined as the "immediate physical surroundings, social ties, and cultural milieus within which defined groups of individuals function and interact," as cited in Dimoff & Sayette (2016). (Barnett

& Casper, 2001). With the exception of Harakeh and colleagues' work from 2011, research has typically not been set up to look into the social factors that contribute to smoking motivation or behaviour, and frequently the social side of the cue is not addressed beyond the assumption that it is a smoking cue. However, it is noteworthy that for many years, researchers outside of the lab have understood that social context affects smoking (Glad & Adesso, 1976). So same is the case with cannabis addicts.

Additionally, being among non-smokers may reduce a person's smoking behaviour below what it would be if they were alone (Shiffman & Rathbun, 2011). Furthermore, long-term studies reveal that the proportion of smokers in young people's social environments is related to their smoking rates. Vicarious learning processes have been linked to this relationship (West & Brown, 2013), albeit it is unclear how much this relationship is influenced by selection versus socialization effects or how familiarity influences it. Although early research suggests that non-dependent "chippers" may also be susceptible to the effects of social environment on smoking, most laboratory studies of social context and smoking have focused on daily smokers in late adolescence or young adulthood (Reymarova, Schlagintweit, & Barrett, 2015).

Cannabis has conflicting impacts on social behaviours, causing both an increase and a decrease in social interaction or chatting. The majority of studies looking at how cannabis affects social interaction were done in the 1980s. Higgins and Stitzer (1986) evaluated how smoking marijuana affected social interaction. They measured speech volume after timed consumption of cannabis cigarettes containing 0, 1.01, 1.84, and 2.84% Tetrahydrocannabinol while people conversed with partners who smoked placebo cigarettes. The active ingredient in cannabis boosted heart rate and "high" sensations but lowered speaking volume. The pattern of reduced speaking shows that

cannabis may be an exception to the general trend that drugs of abuse promote verbal interaction, as observed by the authors. Foltin et al (1987) studied social interaction in marijuana users who were put through a small-group test in a home laboratory. Each day from 4 pm to midnight, subjects were permitted to interact with other test subjects while still performing "work" in their own private rooms. However, these benefits were most pronounced in groups that showed high baseline levels of interaction. In this situation, active cannabis (relative to placebo) increased social and linguistic interaction (Rachlinski et al., 1989). Participants who displayed larger baseline interpersonal distance experienced less verbal contact after using cannabis. Foltin & Fischman (1988) studied the impact of cannabis on participants' time spent interacting with other study participants in another study from the same lab. The time that respondents spent in the social area did not increase when they were using active cannabis. The medicine lengthened the time that individuals spent doing the same things. It seems expected that interest in cannabis' impact on social functioning will resurface given the dramatically increased availability and use of the drug.

Few researches have extensively investigated how social context affects how people react to cannabis. In one study, Foltin et al. (1994) discovered that although some subjects smoked more marijuana when other participants were present, this was not accompanied by an increase in the drug's positive mood-enhancing effects. During a 12-day residential trial, six male cannabis addicts were permitted to self-administer cannabis cigarettes (0.0% or 2.3% THC). Each day was broken down into 6.5-hour sessions for solitary work and social access, in a mixed arrangement (work first or social first). Regardless of the time, three respondents smoked more marijuana during the social-access period, whereas the other three always smoked more marijuana in the morning. THC level was not correlated with the quantity of cannabis cigarettes smoked, indicating that expectations overrode pharmacological effects in determining intake. Although subjective perceptions of "High," "Liking," "Potency," and "Substance" increased when cannabis was active, these reports did not connect to context or foretell self-administration of the drug.

These results highlight the crucial idea that drug intake is not only influenced by the subjective experiences one has while using a substance. It's likely that cannabis's mood-altering properties do influence drug use, but there are many other variables that also play a role, such as the demands of the job at hand, expectations, the time of day, other people's presence, and availability of drug.

### **History and development of Social Context of Cannabis Use Scale (SCCUS)**

These results highlight the crucial Cannabis's potential to modify mood may contribute to drug usage, but there are many other elements that can influence drug use, such as present work obligations, expectations, the time of day, and the presence of other people.

According to estimates 30% of college students used cannabis (Johnston, O'Malley, Bachman, & Schulenberg, 2006). According to the Substance Abuse and Mental Health Services Administration, young adults overall consume cannabis more frequently than other age groups, with college students using the drug at rates comparable to their non-college going peers (SAMHSA, 2006). According to Caldeira, Arria, O'Grady, Vincent, and Wish (2008), 9% of a sample of first-year college students were estimated to have CUD, with nearly 25% of past-year users fitting the criterion. While numerous studies have shown that college students have cannabis-related issues (Caldeira et al., 2008; Everett, Lowry, Cohen, & Dellinger, 1999; Hammersley & Leon, 2006; Shillington & Clapp, 2001; Tullis, Dupont, Frost-Pineda, & Gold, 2003; White, Labouvie, & Papadaratsakis, 2005).

College Version of The Social Context of Drinking Scales (Beck et al., 1995) was utilized to derive six different drinking-related social contexts: 1) social facilitation (drinking to foster camaraderie and social enhancement); 2) peer acceptance (drinking in a group or to

win peers' approval); 3) emotional pain (drinking to soothe an unpleasant emotional state); 4) drinking during family celebrations or rituals; 5) sex seeking (drinking to initiate sexual contact with someone); and 6) drinking while operating a motor vehicle (e.g., while sitting in a parked car or driving around). DSM-IV criteria for alcohol use disorders and drinking in the presence of emotional suffering were both linked to drinking while operating a motor vehicle (Beck et al., 2009a).

### **Translation and Validation of Social Context of Cannabis Scale**

The choice of an appropriate scale or measure to investigate psychological dimensions of interest is arguably one of the biggest issues in psychology research. Selecting a scale with appropriate psychometric features can occasionally be made simpler by a current comprehensive review of the existing measures. If the scale is a self-rating tool, it may not be available in regional languages, which is a must. In these circumstances, the tool may need to be "translated" following a standard protocol, such as the World Health Organization's forward translation and reverse translation technique (Gomes et al, 2017). The research agrees that just translating a scale is insufficient in and of itself, despite the fact that there is no gold standard for the translation, adaptation, and cross-cultural validation of a measure (Gomes et al, 2017).

Consequently, the goal of the current work was to translate and validate SCCUS (Beck, et al, 2009). The back-translation method, the bilingual technique, the committee or expert team approach, and the pretest procedure are the four conventional approaches recommended by Brislin in 1970 to ensure equivalence between the original and translated measures.

## **Rationale**

The current study aims to provide an evidence-based treatment method known as the Community Reinforcement Approach (CRA) for treating cannabis addicts in Pakistan, where cannabis is the most widely used illegal psychoactive substance, with around four million people (3.6% of the adult population) consuming it. The demand for comprehensive therapy that caters to different aspects of life for effective treatment purposes is evident. To address this growing public health concern, the study focuses on the Community Reinforcement Approach (CRA) as a suitable intervention for cannabis addiction in Pakistan. Cannabis use disorder (CUD) is a major concern, with its prevalence rising globally. People struggling with cannabis addiction often face adverse mental health outcomes, including depression, anxiety, stress, and social maladjustment. The Community Reinforcement Approach (CRA) is an evidence-based behavioral therapy known for its effectiveness in treating substance use disorders. However, its potential benefits in addressing co-occurring mental health issues in cannabis addiction, such as depression, anxiety, stress, marital satisfaction, and social adjustment, remain a critical research gap. Therefore, the present study aims to investigate the suitability and potential advantages of CRA as a treatment approach for cannabis addiction in the context of addressing these mental health concerns.

Moreover, the rationale for conducting research on the CRA for cannabis addiction is driven by several important factors which includes:

**Growing Prevalence of Cannabis Use:** Cannabis is one of the most commonly used illicit substances globally, and its use has been increasing in many regions. The rise in cannabis use and related disorders highlights the urgent need for effective and tailored treatment interventions.

**Limitations of Current Treatments:** Traditional treatment approaches, such as the disease model, Minnesota model, and 12-step program have shown efficacy for cannabis addiction, not all individuals respond equally to these treatments. Additionally, the relapse rates in traditional therapies are relatively high. Therefore, exploring alternative approaches, such as CRA, can provide valuable insights into more effective and individualized treatment strategies. Current treatment approaches for cannabis addiction tend to focus primarily on addressing substance use, while underlying mental health issues might be overlooked. Traditional treatments that target only one aspect of the problem may lead to relapse, reduced treatment adherence, and decreased overall well-being. Therefore, an integrated approach that targets both substance use and co-occurring mental health issues is necessary.

**Holistic and Comprehensive Treatment Approach:** CRA is a multifaceted, behaviorally-based treatment that targets various life domains, including social, familial, vocational, and recreational aspects. By offering a comprehensive approach, CRA can address the complex nature of cannabis addiction, which often involves various factors beyond the biological aspects of drug use.

**Social Context of Cannabis Use:** Cannabis use is often influenced by social and environmental factors, making CRA particularly relevant. This treatment approach can identify and utilize social reinforcers that are more compelling to the individual than substance use, helping to reduce reliance on cannabis in favor of healthier alternatives.

**Adaptability to Different Populations:** CRA can be tailored to suit the needs of diverse populations, including adolescents, adults, and individuals with co-occurring mental health issues. Research on the selection of CRA for cannabis addiction can explore its efficacy in different demographic groups.

**The potential of Community Reinforcement Approach (CRA):** CRA has emerged as a promising evidence-based treatment for SUDs. The approach incorporates a range of behavioral strategies aimed at promoting positive reinforcement for sobriety, reducing substance use, and enhancing overall life satisfaction. By targeting multiple life domains, including social, vocational, and recreational aspects, CRA offers a comprehensive and individualized treatment approach.

**Success in Other Substance Use Disorders:** CRA has demonstrated effectiveness in treating other substance use disorders, such as alcohol and cocaine addiction. Therefore, investigating its application in cannabis addiction in Pakistani society may offer promising results and potentially bridge the gap in effective treatment options for cannabis users. Given its success with other substances, there is a rationale to investigate CRA's effectiveness in treating cannabis addiction, particularly in individuals facing depression, anxiety, stress, marital satisfaction, and social difficulties.

**Addressing Comorbid Mental Health Conditions:** Individuals with cannabis addiction frequently experience co-occurring mental health conditions such as depression, anxiety, and stress. These comorbidities can exacerbate addiction severity and hinder the recovery process.

**Marital Satisfaction:** Cannabis addiction can strain relationships and lead to decreased marital satisfaction. Couples may face challenges related to communication, trust, and emotional intimacy. CRA's emphasis on involving significant others in the treatment process and strengthening social networks may improve marital satisfaction by fostering a supportive environment for both the individual with addiction and their partner.

**Enhancing Social Adjustment:** Cannabis addiction can lead to social isolation, strained relationships, and difficulties in reintegrating into the community. CRA's approach of promoting social engagement, vocational counseling, and recreational activities can support individuals in rebuilding social connections and adjusting to a sober lifestyle.

Furthermore, research indicated that CRA was successful in treating substance dependence (Abbott et al., 1998; Higgins et al., 1991; Miller & Meyers, 1999). CRA stands as a vital component of the multifaceted approaches to treating addiction is today's treatment methods. In terms of treatment programs, for example the disease model, 12-steps spiritual programme, and Minnesota model are used in Pakistan. These therapy programs that are used have very little empirical data to back them up.

According to Edwards (2000), new treatments must be innovative in order to replace therapies with questionable efficacy. The environmental variables, which are an equally essential component of the pain and suffering associated with drug addictions, are generally ignored by the majority of treatment programmes. Research work in therapeutic settings is not sufficient. So, in Pakistani society, it is a dire need to establish the significance of CRA.

Relapse after leaving the hospital or residential therapy is frequently recorded, according to Meyers and Miller (2001). In this regard, it was determined that the Community Reinforcement Approach (CRA), an evidence-based therapy, has a track record of effectiveness. This programme is based on the idea that environmental factors can significantly influence whether addiction is encouraged or discouraged. To aid clients in their healing process, it makes use of social, recreational, family, and occupational reinforcements. Its effectiveness has been proven in treatment formats ranging from 50 hours of therapy to

as little as five hours, and it has been demonstrated to be successful with mild to severe difficulties (Meyers & Miller, 2001).

The goal of CRA is to start adjustments in a client's lifestyle and social environment that will support their long-term recovery. It is a comprehensively, tailored treatment strategy. CRA is a flexible treatment method with a foundation in positive reinforcement that focuses on identifying and utilizing the client's own intrinsic reinforcers in the community. Due to those qualities, CRA can be used with a variety of client populations (with some changes). CRA has been shown to be successful in treating drug addiction and dependency in numerous clinical investigations. The trials used individual and family therapy techniques in treatment settings (such as inpatient and outpatient).

CRA consistently outperformed the conventional methods it was compared to or added to in terms of effectiveness. This method may become more crucial in the treatment of cannabis add since it is compatible with the scope and length of the majority of managed care services. In Pakistani society, less emphasis is placed on involving family members in the treatment of addiction problems for the benefit of addicts. Pakistan is a male dominating society, so any male member of the nuclear family or the extended family visits clients at rehabilitation centers. Female members seldom visit there. Due to a reserve culture; parda values, transport and economic issues, house hold responsibilities there are less visits of female family members. However, with changing life style, being independent, some females take freedom and visit these areas. The areas of social, recreational, familial, and occupational difficulties are the focus of CRA, an intervention-based treatment program. As a result, its adaptability and positive reinforcement philosophy are probably suitable, with some modifications, to a wide spectrum of populations.

The rationale for using the Community Reinforcement Approach (CRA) for cannabis addiction treatment in the Pakistani region lies in its potential to address the complex social and cultural factors that contribute to addiction. Pakistan's society is deeply rooted in communal ties and family structures, making CRA a suitable intervention to involve families and communities in the recovery process. By reinforcing positive behaviors, building social support, and addressing employment and recreational needs, CRA aims to create a supportive environment that encourages sustained recovery and reduces the stigma associated with cannabis addiction, aligning well with the collectivist values prevalent in the Pakistani culture.

In conclusion, conducting research on the selection of the Community Reinforcement Approach (CRA) for cannabis addiction in the context of Pakistani society is crucial to bridge the knowledge gap and enhance our understanding of effective interventions for this prevalent and complex substance use disorder. By exploring the potential benefits of CRA, especially concerning depression, anxiety, stress, marital satisfaction, and social adjustment within the Pakistani cultural context, researchers can contribute valuable insights to addiction treatment in the country. Integrating CRA into cannabis addiction treatment in Pakistan presents a unique opportunity to comprehensively address co-occurring issues. Through positive reinforcement and functional analysis tailored to the local societal norms and challenges, CRA can effectively support individuals in achieving abstinence while also addressing underlying mental health concerns. This research is of utmost importance in developing evidence-based, culturally sensitive treatment strategies, leading to improved outcomes, enhanced quality of life, and more effective interventions for individuals struggling with cannabis use disorder in Pakistan. Ultimately, the advancement of addiction

science and practice in the Pakistani setting hinges on further investigating CRA's role in addressing cannabis addiction in a holistic and individualized manner that aligns with the unique characteristics of society.

### **Objectives**

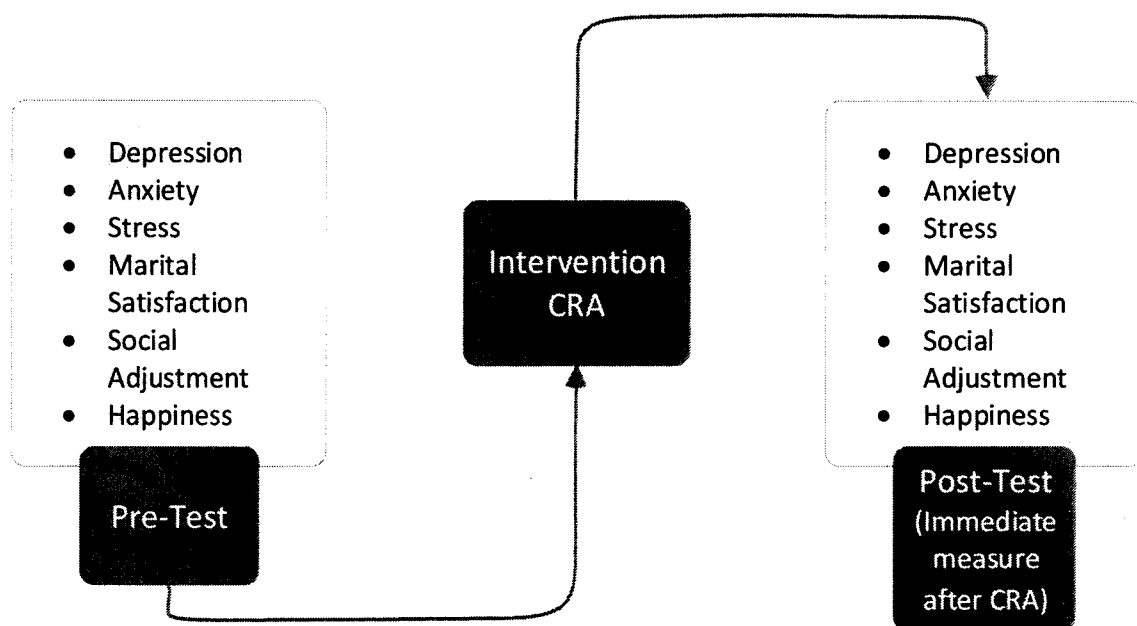
1. To introduce Community Reinforcement Approach (CRA) as an evidence-based treatment for cannabis addicts in Pakistan.
2. To compare the feasibility of Community Reinforcement Approach (CRA) and Traditional counseling among cannabis addicts.
3. To find out the feasibility of Community Reinforcement Approach (CRA) on marital satisfaction as compared to Traditional counseling among cannabis addicts.
4. To find out the feasibility of Community Reinforcement Approach (CRA) on social adjustment as compared to Traditional counseling among cannabis addicts.
5. To find out the feasibility of Community Reinforcement Approach (CRA) on depression, anxiety, and stress as compared to Traditional counseling among cannabis addicts.
6. Translation and validation of CRA programme with reference to Pakistani society.
7. Translation and validation of Social Context of Cannabis Use Scale (SCCUS) and Happiness Scale (as given by CRA programme).

### **Hypotheses**

1. There will be a difference in cannabis addicts during pre-treatment phase and post-treatment phase of CRA as compared to those who will receive other traditional counseling treatment.
2. To check the effectiveness of CRA, in above objective feasibility of CRA was determined on sample of cannabis addicts. After that it was translated and validated for present sample with reference to Pakistani society.

3. There will be high level of social adjustment in cannabis addicts after getting CRA as compared to those who will receive traditional counseling.
4. There will be high level of marital satisfaction in those cannabis addicts who will receive CRA as compared to those who will receive other traditional counseling treatment.
5. There will be high level of happiness in those cannabis addicts who will receive CRA as compared to those who will receive other traditional counseling treatment.
6. There will be low level of depression, anxiety, and stress among those cannabis addicts who will receive CRA as compared to those who will receive traditional counseling.

*Figure 1 Conceptual Framework of the current study*

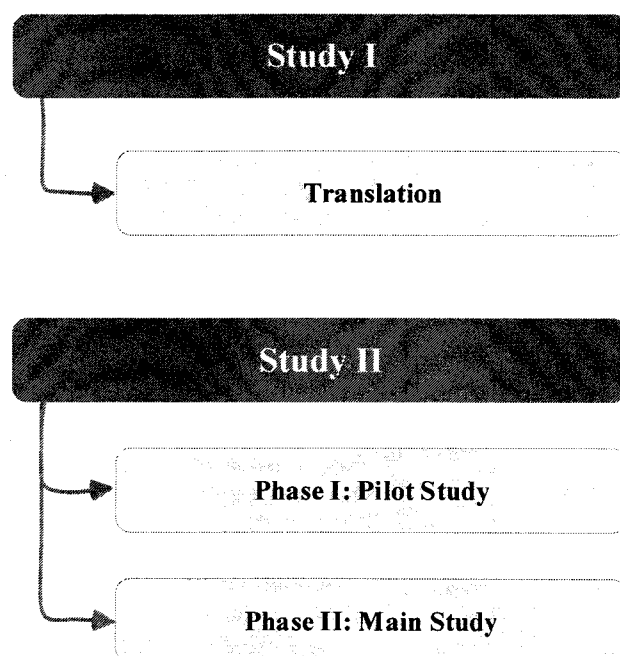


Above figure shows conceptual framework for the present study. First phase would be the pretesting of variables i.e. depression. Anxiety, stress, marital satisfaction, social adjustment and happiness. After intervention (CRA) post-test would conduct immediately.

## Method

### Research Design

This study was based on a quasi-experimental (pretest-posttest) research design. It consists of two studies. In Study-I; translation, validation, and psychometric properties of Urdu translated scales were made. Whereas, Study II was divided into two phases. Phase-I pilot study was conducted to estimate psychometric properties. Phase-II was the main study, which aimed to find out the differences between CRA and Traditional Counselling on variables of research.



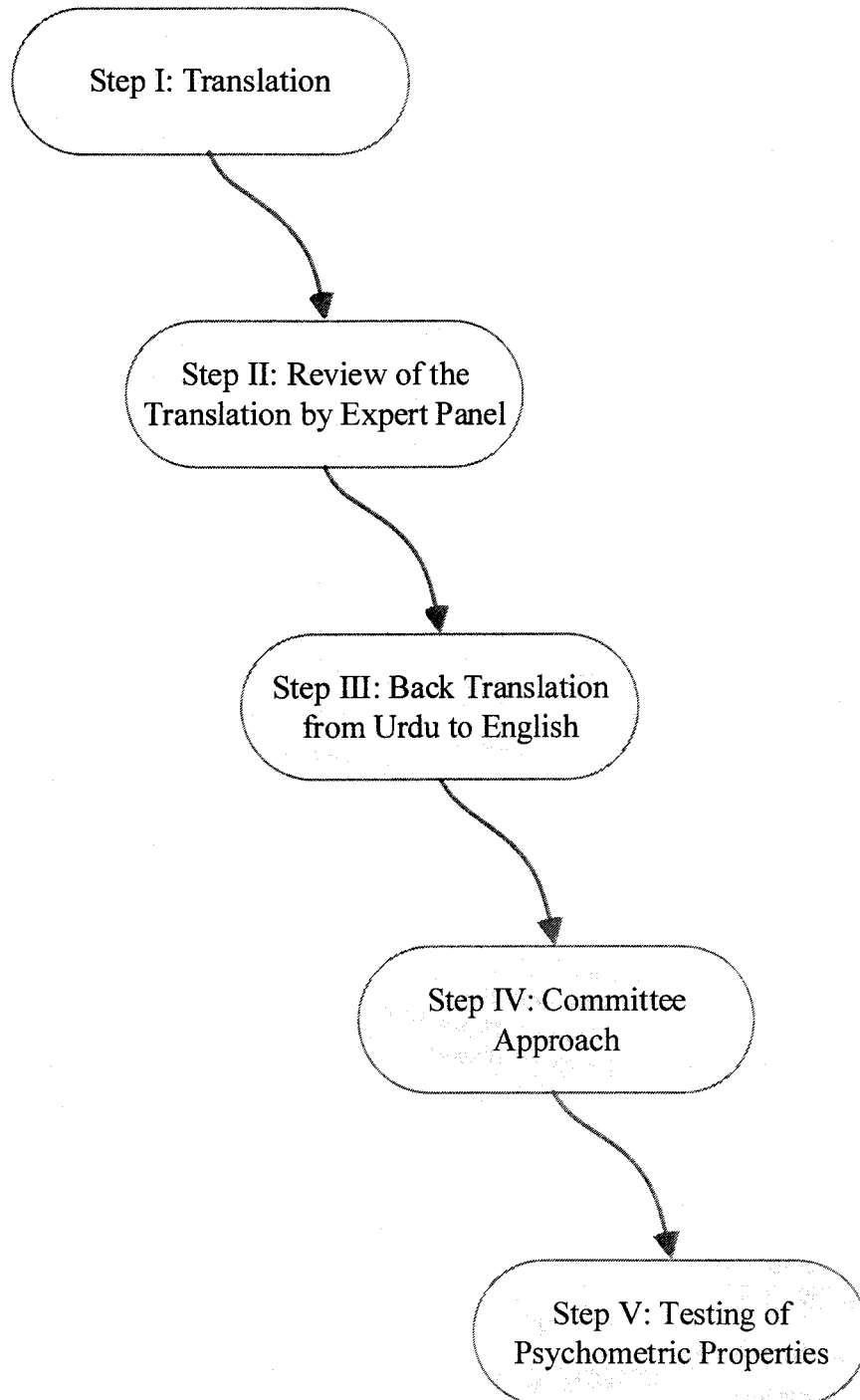
*Figure 2 Stages of current study*

## **Study I**

### **Translation and validation of Intervention Plan (CRA), Social Context Cannabis Use Scale (SCCUS) and Happiness Scale for Community Reinforcement Approach.**

Study I consisted of Urdu translation and validation of the Social Context of Cannabis Use Scale (SCCUS), Happiness Scale, CRA intervention plan for its application to cannabis addicts with reference to Pakistani society. The scales were translated in Urdu after getting formal permission from the original author by using the standardized form of translation and adaptation procedure. Procedures suggested by Brislin (1980) were followed for translation and validation of the scales.

*Figure 3: Translation Procedure*



***Step I: Translation of the original scale scales from English to Urdu***

For forward translation, four bilingual experts were asked to translate the desired scales from the original source (English) to the Urdu language. The translation was done by 4 bilingual experts. All bilinguals were expert in English and Urdu, lecturers of Urdu and English department of F-7/2 college and IMCG F-6/2. They were requested to translate the items; word by word from English to Urdu. They independently translate the scales so that could not influence each other. They were briefly informed about the study and the purpose of the translation. A letter of consent was also shared with them.

***Step II: Review of the Translation by Expert Panel***

A committee was formed for reviewing the forward translation. The committee consisted of 4 members and they all belonged to the profession of mental health. Including Assistant Professors from International Islamic university and Clinical Psychologist from PAF hospital Islamabad, along-with the supervisor and the student. Committee reviewed the Urdu-translated version of the scales and compared it with the original English version and made recommendations. After a thorough and careful evaluation of each item, they choose only those items that were very close in meaning and in context to the original scale (English). After reconciliation of the forward translation, each item was assessed on the basis of semantic equivalence and precision. Afterward, the forward translation was given to two new experts for backward translation i.e. from Urdu to English.

***Step III: Back translation from Urdu to English***

After reviewing the expert opinion, the Urdu translation version of the scales; Social Context Cannabis Use Scale and Happiness Scale were translated back to English.

Translators were unaware of the English version and they were asked to translate the Urdu version into English. The backward translation was carried out by four bilingual experts. All bilinguals were expert in English and Urdu and understudies in English, Urdu and Sociology of M. Phil and Ph.D. level at International Islamic University. In backward translation, same guidelines were considered as followed for the forward translation process.

#### ***Step IV: Committee Approach***

In this step, four committee members that were same in forward translation were asked to compare and critically evaluate the wording, structure, grammatical errors, and sentence formation of both back translation and Urdu version. Clear understanding and contextual meaning were also considered.

#### ***Step V: Tryout***

It was done to test psychometric properties of pre-final version of translated instruments to assess their understanding on each item. After pretesting, reliability and confirmatory and exploratory factor analysis (CFA & EFA) was carried to assess the psychometric properties of the translated scales.

#### **Sample**

For establishing psychometric properties of translated scales, the data was gathered from different treatment and rehabilitation centers for addiction treatment in Islamabad and Rawalpindi. The sample consisted of 300 cannabis addicts. Purposive sampling technique was used to collect data. All the subjects were male, age range of the subjects was between 18 to 50 years, met the diagnostic criteria for cannabis dependence according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013). Patients with severe

psychopathological conditions (e.g. dementia, schizophrenia, personality disorders), and those who, presented a principal diagnosis for another psychoactive substance was excluded in the present study.

## Results

Factorization both EFA, CFA and reliability analysis were carried out for both scales; Happiness Scale and Social Context Cannabis Use Scale.

**Table 1**

*Sociodemographic characteristics of the participants for the Happiness Scale (HS) and Social Context Cannabis Use Scale (SCCUS)(N=300)*

Demographic Variables	N	%
<b>Age</b>		
18-29	181	60.3
30-39	89	29.7
Above 40	30	10.0
<b>Education</b>		
Up to Matric	163	54.3
Matric and Above	137	45.7
<b>Occupation</b>		
Employed	98	32.7
Unemployed	106	35.3
Student	96	32.0

*Note. Age mean=1.50 (SD=.672), Education mean=1.46 (SD=.499), Occupation mean=1.97 (SD=.821)*

Table 1 shows the sociodemographic variables of the participants such as age, education, and gender. Frequency distribution reveals that most participants were in the age range of 18-29 years (60%), with reference to education, participants up to matric were higher (54.3 %). Furthermore, the frequency distribution shows that unemployed participants were higher (35.3%) than employed (32.7).

**Table 2**

*Psychometric properties of the Happiness Scale, Social Context Cannabis Use Scale (SCCUS), and its subscales (N=300)*

<b>Scales</b>	<b>K</b>	<b>M</b>	<b>SD</b>	<b>Range</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>Cronbach's <math>\alpha</math></b>
HS	10	30.11	14.01	2.70-3.38	.735	-.333	.97
SCCUS	24	64.63	10.95	1.99-3.22	-.157	1.874	.84
SF	13	36.93	6.67	2.48-3.22	-.248	1.429	.80
PA	5	12.96	3.53	2.26-3.02	.275	-.278	.71
EP	3	7.77	1.98	2.33-2.93	-.080	-.305	.32
SS	3	6.96	1.89	1.98-2.74	.388	-.111	.20

*Note. HS (Happiness Scale, SCCUS (Social Context Cannabis Use Scale), SF (Social Facilitation), PA (Peer Acceptance), EP (Emotional Pain), SS (Sex Seeking)*

Table 2 shows Cronbach's alpha reliability of the study variables. Cronbach's alpha reliability for happiness Scale indicates high internal consistency ( $r=.97$ ). Alpha reliability of social context cannabis use scale is also very high ( $r=.84$ ). The sub-scales of SCCUS; Social Facilitation, Peer Acceptance, Emotional Pain, and Sex Seeking have reliability values are .80, .71, .32, and .20, respectively. Two sub-scales' reliability have low values of .32 and .20, which is mainly due to having less number of items for the subscales.

**Table 3***Item-total Scale Correlation of Urdu Translated HS (N = 300)*

Item No.	Corrected Item-total Correlation	Item No.	Corrected Item- total Correlation
1	.85	6	.82
2	.85	7	.88
3	.89	8	.86
4	.87	9	.87
5	.88	10	.88

Table 3 indicates that all the items are significantly correlating with total score of Urdu Translated Happiness Scale and correlation coefficients are ranging from .82 to .89 for item no. 6 and 3, respectively. This reflects upon the construct validity of the measure.

After computing Item total correlation of Happiness Scale (HS), factor analysis was run to validate the factor structure.

### **Exploratory factor analysis of Happiness Scale**

Factor analysis can be used to assemble common variables into descriptive categories. Factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that share a common variance, which is known as reducing dimensionality (Bartholomew, Knott, & Moustaki, 2011). In the present research, Principle Component Method of EFA was used to explore the factor structure of Translated HS it is being used for the first time in Pakistan in Urdu language, so it was important to first explore its factor structure in Pakistani culture and Urdu language as well.

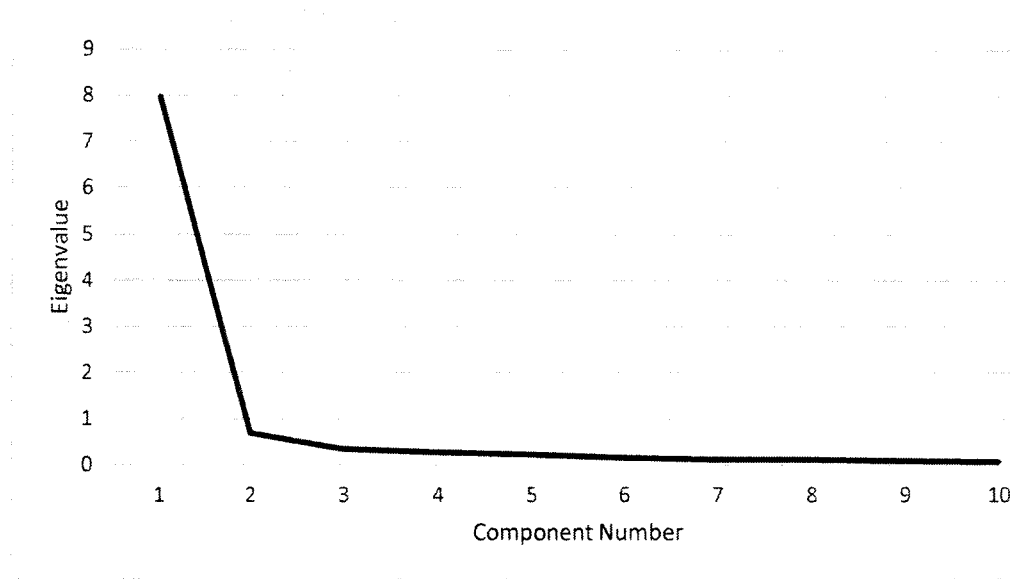
**Table 4**

*Factor Loadings of the Items of Happiness Scale obtained through Principal Component Factor Analysis (N = 300)*

Item No	Factor Loadings	Item No	Factor Loadings
1	<b>.78</b>	6	<b>.73</b>
2	<b>.78</b>	7	<b>.81</b>
3	<b>.84</b>	8	<b>.79</b>
4	<b>.80</b>	9	<b>.80</b>
5	<b>.82</b>	10	<b>.81</b>
Eigen Values		7.97	
% Variance		79.66	
Cum. %		86.56	

Table 2 shows results of EFA revealing that Translated HS is clearly having single factor. Final scale consisted of 10 items as of original scale (English). The results show that Eigen value of all the items is 7.97 which explains 79.66% of the variance. The scree plot also showed the same results. The slope of the scree plot curve levels out after a single factor.

Figure 4 scree plot of Eigenvalue for HS



### Conformity Factor Analysis

The current study used SPSS 22 and Analysis of Moment Structure (AMOS) for data analysis. For determining construct validity, Confirmatory Factory Analysis (CFA) using Maximum Likelihood Estimation (MLE) was used.

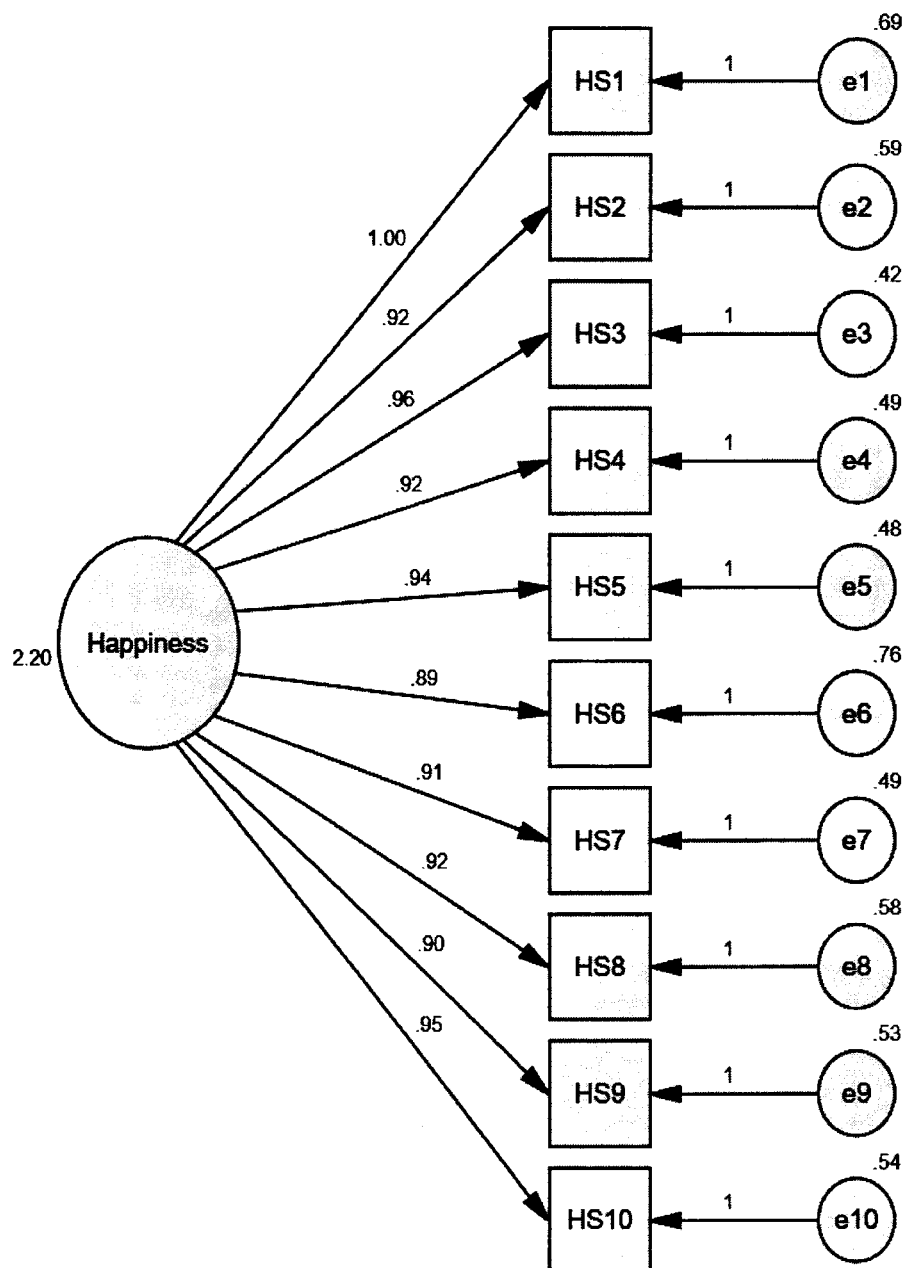
**Table 5***Goodness-of-Fit Indicators of Models Happiness Scale (n = 300)*

Scale	Model in CFA	$\chi^2$ (df)	Fit indices					$\chi^2$ (df)
			<i>GFI</i>	<i>AGFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMSEA</i>	
Happiness Scale	Default	732.240 (35)	.63	.43	.84	.83	.05	20.093

*Note. significant (p.000)*

Table 5 showed the 1<sup>st</sup> order model fit indices for the CFA of Happiness Scale. The findings of the 1<sup>st</sup> order of Happiness Scale showed satisfactory results, where all 10 items were independent in terms of error covariance. Model fit indices were satisfactory too.

Figure 5 Standardized factor loadings in 1st order CFA of Happiness Scale:



The above model was uni-dimensional in nature (Figure 5). All the 10 items loaded adequately on a single factor with loading ranging from 0.73 to 0.84 ( $p < .000$ ). Model fit indices suggested a good fit with Comparative Fit Index (CFI) = 0.85, Tucker Lewis Index (TLI) = 0.79, Normative Fit Index (NFI) = 0.83 and Root Mean Squared Error Approximation (RMSEA) = 0.05. All CFA's model fit indices (IFI, CFI, TLI and RMEAS) were in the acceptable ranges.

### Exploratory factor analysis of Social Context Cannabis Scale

In the present research, Principle Component Method of EFA was used to explore the factor structure of Translated SCCUS it is being used for the first time in Pakistan in Urdu language, so it was important to first explore its factor structure in Pakistani culture and Urdu language as well.

**Table 6**

*Factor Loadings of the Items of Social Context Cannabis Scale obtained through Principal Component Factor Analysis (N = 300)*

Items	Loadings			Communalities
	Factor 1	Factor 2	Factor 3	
SCCS20	<b>0.71</b>			0.46
SCCS11	<b>0.66</b>		0.3	0.45
SCCS5	<b>0.66</b>			0.5
SCCS17	<b>0.63</b>			0.58
SCCS16	<b>0.61</b>			<b>0.69</b>
SCCS9	<b>0.6</b>			<b>0.62</b>
SCCS18	<b>0.5</b>			<b>0.73</b>
SCCS14	<b>0.41</b>			<b>0.79</b>
SCCS19	<b>0.39</b>			<b>0.81</b>
SCCS22	<b>0.36</b>			<b>0.83</b>
SCCS15	<b>0.32</b>			<b>0.83</b>
SCCS8		<b>0.77</b>		<b>0.39</b>
SCCS4		<b>0.67</b>		0.5
SCCS12		<b>0.64</b>	-0.42	0.39
SCCS1		<b>0.58</b>		0.58

SCCS3		0.54		0.68
SCCS10		0.52		0.69
SCCS7		0.42		0.75
SCCS23		0.33		0.81
SCCS24				0.87
SCCS21				0.91
SCCS2	0.38		<b>0.65</b>	0.42
SCCS13	0.42		<b>-0.32</b>	0.37
SCCS6	0.47		<b>0.61</b>	0.4

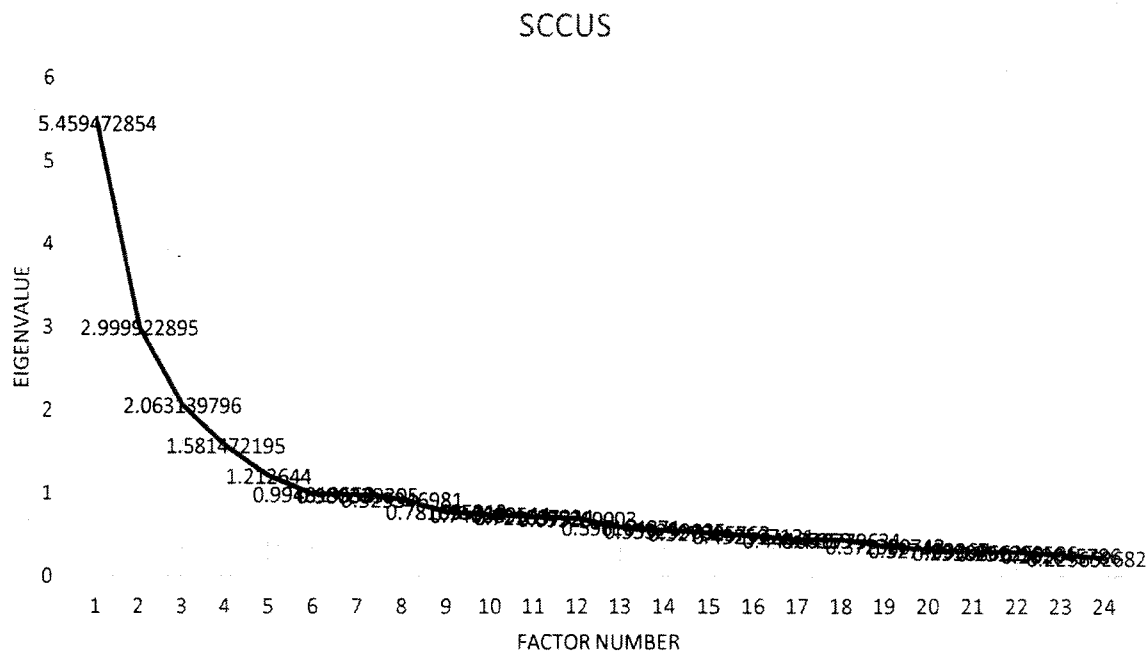
#### Variance Explained by Factor

	Variance Explained	Cumulative Variance
Factor 1	17.14971	17.14971
Factor 2	12.82109	29.97081
Factor 3	7.10896	37.07976

The instrument was analyzed to validate the comprehensive instrument of Social Context Cannabis Scale (SCCS) through exploratory factor analysis and to confirm its structure. Principal axis factoring extraction method (principal component analysis) was used in combination with a varimax rotation. Table 6 presented three meaningful factors which explain a total of 38% of the variance for all variables and corresponding items. Factor 1 was labeled as Social Facilitation including dimensions which includes 14 items that explain emotions such as interpersonal relationship. This factor explains a total of 17% variance in the dependent variable. Factor 2 from EFA was labeled as Peer Acceptance which explains a total of 12% variance that includes 8 items ranging from emotions/feelings of relationship. Factor 3 has been labeled as Emotional Pain and explains a total of 7% variation in the dataset including six items that contribute to emotions such as pain. The overall cumulative variance of all these factors accounts to 37%. In addition to this, Bartlett's test of Sphericity tests the hypothesis that our correlation matrix is an identity matrix, which would indicate that all variables are unrelated and therefore unsuitable for structure detection. The

KMO (Measure of Sampling Adequacy) and Bartlett's Test of Sphericity both indicate that the set of variables are at least adequately related for factor analysis. All these three factors are individually are not identical and does interrelate. Item exclusion can either be done on basis of Cronbach alpha's value or according to EFA, as in this study. According to Field (2013), while performing CFA and EFA analysis, items that represent weak relation relate to factor loading which is less than 0.3. Since, no items had factor loading values of less than 0.3, none of them were discarded for further analysis. Moreover, three items yielded negative values in Factor 3; -.4 for SCCS12 and -.6 for SCCS13 which explain the reversal behavior but their magnitude and uniqueness is significant hence these items were also not discarded for further inquiry. Scree plot also indicated the three factors that was extracted through EFA.

Figure 6 scree plot of Eigenvalue for SCCUS



### Conformity Factor Analysis

The current study used SPSS 22 and Analysis of Moment Structure (AMOS) for data analysis. For determining construct validity, Confirmatory Factory Analysis (CFA) using Maximum Likelihood Estimation (MLE) was used.

Figure 7 Standardized factor loadings in 1st order CFA of Social Context Cannabis Scale:

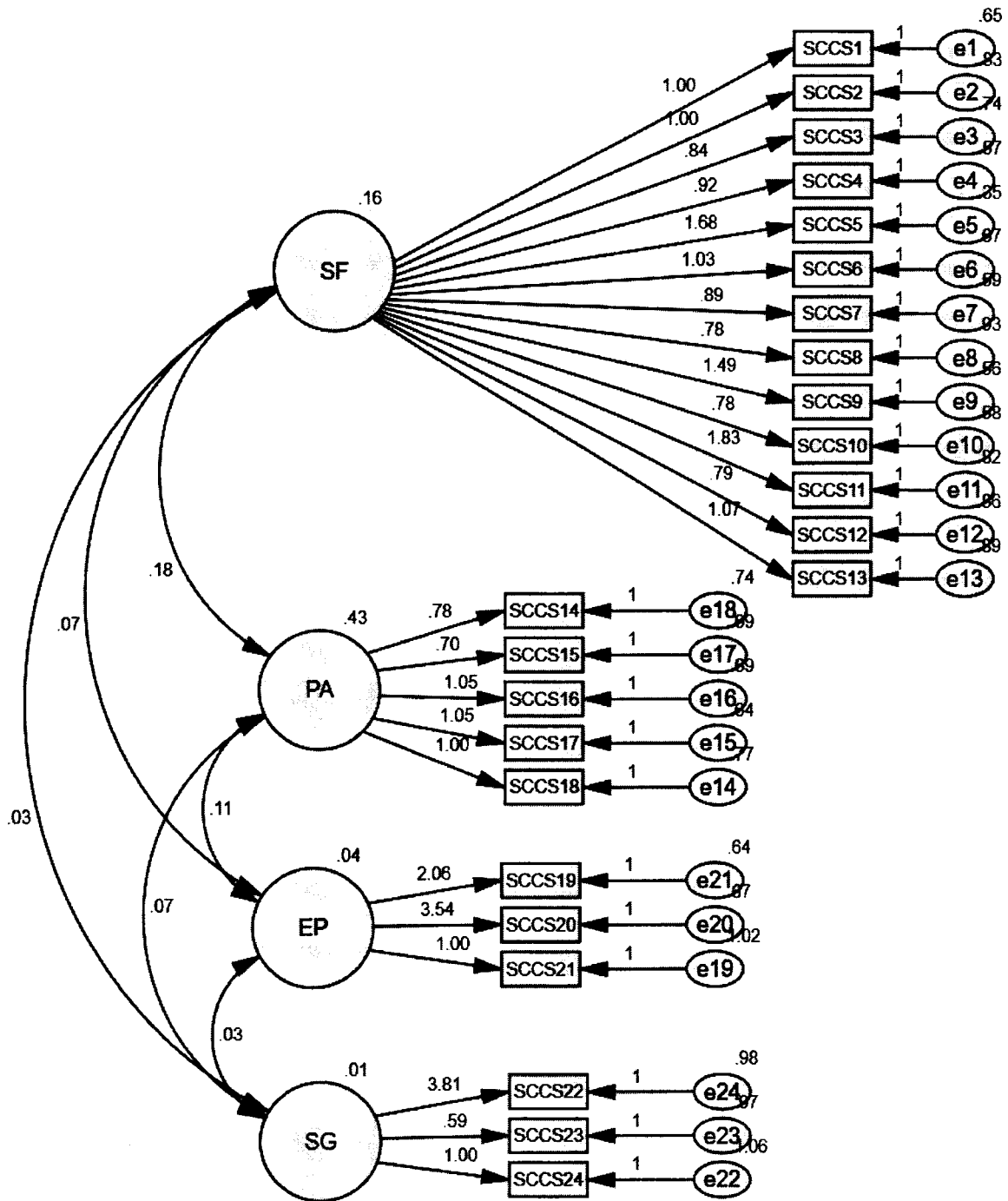


Figure 7 represents standardized factor loadings in 1st order CFA of Social Context Cannabis Scale. Based on Stevens (2002), for a sample size of 100 the loading should be greater than 0.512, but for 300 it should be greater than 0.298, and for 1000 greater than 0.162. Therefore, the significance of a loading gives little indication of the substantive importance of a variable to a factor because it depends on sample size (e.g., in very large samples, even small loadings will be ‘significant’). Stevens (2002) recommends interpreting factor loadings with an absolute value greater than 0.4 (the factor explains around 16% of the variance in the variable). Some researchers opt for the lower criterion of 0.3 (Field, 2013).

## **Discussion**

Cannabis is as one of the most extensively utilized psychoactive substances in the United States (U.S.), with approximately 43.5 million individuals aged 12 and above reporting past-year use and around 124 million people reporting lifetime use in 2018 (UNODC, 2020). Cannabis usage among college students is estimated to be around 30% (Mohler-Kuo, Lee, & Wechsler, 2003). It is observed that drugs are commonly used in social situations, such as when people gather in large or small groups of friends, attend parties, or engage in other social settings.

Cannabis and other substances have been found to enhance the pleasure of socializing, either by facilitating more positive social interactions or by alleviating subtle negative emotional states like social anxiety (Sayette, 2017). The social context refers to the immediate environmental, chronological, and motivational factors that influence substance use behavior (Thombs, Wolcott, & Farkash, 1997).

Social factors frequently show up as a driving force or motive for smoking, according to surveys (Piper, et al, 2004). Many cannabis addicts assert that they use the drug for its soothing benefits, and recent research suggests that the endogenous cannabinoid system is important in the body's reaction to stress (Hill et al., 2018).

Based on earlier work with the Social Context of Drinking Scales, the Social Context of Cannabis Use Scale for college students was developed. The study sought to investigate how social context and CUD interacted, as well as whether or not social context indicators might predict when non-problematic usage would turn problematic one year later. They also looked into the link between the social environment and depression symptoms. Understanding the locations, justifications, and times of cannabis use among college students may assist determine crucial areas for intervention and CUD prevention (Beck et al., 2009b).

The Community Reinforcement Approach Happiness Scale (CRA-HS) is widely used for assessing the quality of life in addiction treatment, but the amount of research on psychometric properties has been scant. The concept of 'quality of life' is considered a perception of an individual's position in life with respect to the context of cultural and value systems (World Health Organization 2018).

Originally, the CRA-HS was based on the 10-item Marital Happiness Scale (Azrin et al, 1973), which was modified by Azrin (1976) to suit single patients as well in order to prevent relapse and coined the instrument CRA-HS. The core measure assesses happiness across 12 domains: housing, household, job/education, money management, social life, recreational activities, drug use, personal habits, family, emotion, communication, and health. Based on an exploratory factor analysis, it was shown that the CRA-HS could be

interpreted as a one-factor structure model with a good internal consistency and discrimination between patients and controls (Bouten et al., 2017).

Study 1 aimed to translate and validate the scales (Social Context Cannabis Use Scale and Happiness Scale) which were used in the present research. Translation and cultural adaptation are progressive methods, which is based on an expert board for the adaptation of psychological tools. The purpose of this study is to culturally validate and translate the scales. The reason behind translation was to minimize cultural errors in biasness. It is observed that reliable and cross-culturally validated scales provide help to assess the diverse issues of people around the World (Sousa & Rojjanassirat, 2010).

The choice of an appropriate scale or measure to investigate psychological dimensions of interest is arguably one of the biggest issues in psychology research. Selecting a scale with appropriate psychometric features can occasionally be made simpler by a current comprehensive review of the existing measures. If the scale is a self-rating tool, it may not be available in regional languages, which is a must. In these circumstances, the tool may need to be "translated" following a standard protocol, such as the World Health Organization's forward translation and reverse translation technique (Menon & Praharaj, 2019). The research agrees that just translating a scale is insufficient in and of itself, despite the fact that there is no gold standard for the translation, adaptation, and cross-cultural validation of a measure (Gomes et al, 2017).

It can be concluded that the translated version of the social context cannabis scale and happiness scale are valid and reliable tools for assessing social context for cannabis and satisfaction in ten areas of the life of a person with cannabis use disorder. This study has

strong implications to follow the Community Reinforcement Approach (CRA) as the most suitable intervention for addicts living in the society of Pakistan. Both exploratory and conformity analysis was carried out to identify the factors for happiness scale and social context cannabis scale. Results were presented in both tabulated and graphical forms.

## **Study-II**

### **Research Design**

This study was based on quasi-experimental (pretest-posttest) research design. Quasi-experimental research design, like experimental designs, test causal hypotheses. A quasi-experimental design by definition lacks random assignment. Quasi-experimental designs identify a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics. In present study Quasi-experimental research design was used to compare the effectiveness of CRA on different variables i.e. marital satisfaction, social adjustment, depression, anxiety, and stress as compared to traditional counseling as the current study lacks randomization. Steps mentioned in procedure section.

Study II consisted of two phases. In Phase-I pilot study was conducted to estimate psychometric properties and Phase-II was the main study, which was aimed to find out the differences between CRA and Traditional Counselling on variables.

### **Participants**

The data was gathered from different treatment and rehabilitation centers in Islamabad and Rawalpindi including Sunny Trust International Drug and Rehabilitation Treatment Center, Islamabad Addiction Center, Eman Clinic, Nijaat Clinic, Harmain

Rehabilitation, and Hero Health Care Rehabilitation Center. Two samples were drawn by employing purposive sampling technique. The research sample was comprised of 40 participants. One sample consisted of a group of 21 cannabis addicts who received CRA treatment (acted as an experimental group) and the other consisted of a group of 19 cannabis addicts who received traditional treatment (acted as a control group). Initially, 170 participants were taken, after screen out sample remained of 140 participants, in which one sample was comprised of the experimental group (n=78), and the control group consisted of 62 cannabis addicts. The dropout rate was quite high due to different reasons for the participants. After dropping out, the final sample of the main study was 40 participants. One sample consisted of a group of 21 cannabis addicts who received CRA treatment and the other consisted of a group of 19 cannabis addicts who received traditional treatment. The respondents were approached individually. Permission from relevant institutions was taken. Participants' anonymity and confidentiality was also guaranteed and informed consent was obtained from the participants according to the "Ethical Principles of Psychologists and Code of Conduct" (APA, 2009).

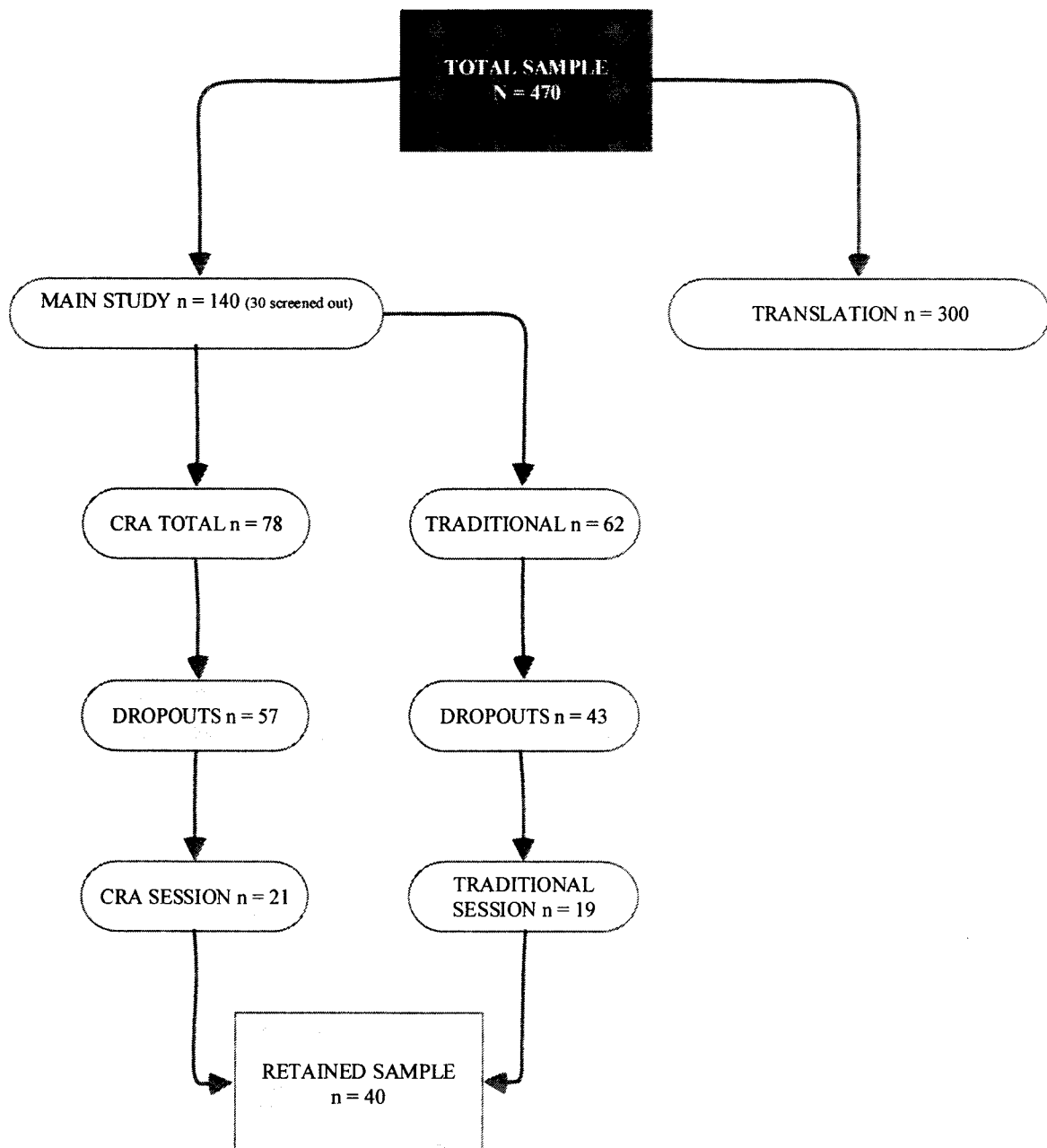
**Inclusion criteria.**

All the subjects were male, age range of the subjects was between 20 to 50 years, met the diagnostic criteria for cannabis dependence according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013) and completed detoxification process.

**Exclusion criteria.**

Patients with severe psychopathological conditions (e.g. mood disorders, personality disorders, dementia, schizophrenia), and those who, presented a principal diagnosis for another psychoactive substance was excluded in the present study. Furthermore, any neurological and physical or medical were also not considered for the present research.

Figure 8 Flow chart of participants



## **Operational Definitions**

### **Community Reinforcement Approach (CRA).**

CRA is a method of treatment applied on cannabis addicts in this study. For implementation of CRA, a CRA Performa will be followed. This comprises of following protocols including functional, behavioral skills (*problem Solving, Communication Skills, Drink/Drug Refusal*), social activities, relationship counseling, and relapse prevention (Meyers & Smith, 2001).

### **CRA Treatment Plan**

The main objective of current research was to establish CRA treatment plan across the country in addiction treatment providers' settings. This also includes;

- (a)- The establishment of meaningful and objective goals for clients during their treatment.
- (b)- The establishment of highly specified methods for achieving the goals.
- (c)- Use of tools like Happiness scale and Goals of Counselling Form.

Implementation of following sub areas of CRA indigenously:

- **Behavior Skills Training**

There are three basic behavior skills that are the core of the CRA that should be taught in clinical settings for addiction treatment. These skills should be taught through instructions and by roleplaying among a group of clients.

**(a)-Problem Solving-** Smaller problems should be dealt with first to affirm the effectiveness of skills and break down overwhelming issues into smaller parts to help resolve them with

ease. i. e., training clients about how they can achieve recovery by taking it day by day and step by step, by setting daily goals.

**(b)-Communication Skills-** A positive way of interacting with others is to be taught, i.e. Encouraging clients to ask for help and to assure them of its effectiveness, and for them to share their feelings with a reliable person.

**(c)- Drug Refusal Training -** By helping clients in high-risk situations where they can either approach for help or show assertiveness.

- **Job Skills Training**

Clients are to be taught about how they can obtain a job which is according to their abilities and how they can keep that job by giving value to it. i.e. to help suggests to clients about jobs which are best suitable for them.

- **Social and Recreational Counseling**

Clients are to be introduced with different social and recreational activities which they can find pleasure in, i.e. Start making vlogs and focus on eating healthy food, do work out and spend time in gym or play indoor games like chess, ludo etc.

- **Relapse Prevention**

An important aspect of CRA treatment plan is relapse prevention training in which clients are to be taught about the identification of high risk situations and to avoid no go areas where they can fall prey to drugs. Also, clients are to be taught about how to anticipate and cope with a relapse. Roleplaying has to be done among a group of clients to train them for real life scenarios.

- **Relationship Counseling**

It is done to improve the connection of client with his family, partner. Clients are taught about it during therapy sessions which they exercise during their meetings with family while they are undergoing treatment. It is effective and helps clients in finding their lost bond with their loved ones.

**Traditional counseling.**

According to Corey, 2017 traditional counseling, also referred to as conventional or classical counseling, encompasses well-established therapeutic approaches and techniques that have been developed and applied over time. These methods are grounded in established psychological theories and principles. Typically, traditional counseling involves direct, in-person interactions between a trained counselor or therapist and an individual seeking assistance with personal, emotional, psychological, or behavioral challenges. Research studies on addiction treatment typically have classified programs into several general types or modalities. It includes mainly disease model and Minnesota model.

In the present study, traditional counseling/approaches will be based on the treatment procedures being used in different rehabilitation centers. That is detoxification and general counselling i.e., disease model, 12 steps spiritual programme, group therapy.

**Cannabis Users**

Cannabis users are individuals who use cannabis occasionally or recreationally without experiencing significant negative consequences or dependency. They may use cannabis for various reasons, such as socializing, relaxation, curiosity, or as a form of stress relief. The frequency and amount of cannabis use may vary among users, but they can

typically control their usage and are not compulsively driven to use the substance. Cannabis use can take many forms, including smoking, vaporizing, consuming edibles, or using topical products such as creams or oils (National Institute on Drug Abuse, 2020).

### **Cannabis Addicts**

Persons with cannabis use disorders (CUD) are those individuals who have developed a problematic pattern of cannabis use that leads to significant distress or impairment in various areas of their life. Those who are addicted to cannabis may find it challenging to control their consumption, and it can interfere with their daily functioning, relationships, work or school performance, and overall well-being. Cannabis addiction is considered a mental health disorder and may require professional intervention and treatment.

In the present study cannabis addicts are taken because CRA is an umbrella therapy, it can be applied on addicts' sample for its applicability in Pakistani culture. Secondly, obtaining a representative sample of cannabis users proved challenging. Furthermore, many of them may not acknowledge the addictive potential of cannabis.

### **Instruments**

Following instruments were used in the present study.

#### ***Social Context of Cannabis Use Scale (SCCUS).***

The SCCUS (Beck, et al., 2009) is a 24 item self-report scale that assesses the reasons why and the variety of situations where cannabis is used. It includes four sub-scales: social facilitation, peer acceptance, emotional pain and sex seeking with good internal consistency demonstrated for all sub-scales,  $r = 0.71$  to  $0.95$ . For the present study, it was translated in

Urdu language by following committee approach method. Its reliability was 0.77 for current research.

***Depression Anxiety Stress Scale (DASS).***

Depression Anxiety Stress Scale was used to assess the mental health issues of the participants. It was developed by Lovibond and Lovibond (1995). An Urdu version (Khalily & Zafar, 2014) was used in the present study. DASS consisted of 42-item self-report measure of depression, anxiety, and stress. The scale consists of three subscales, each subscale contains 14 items. The Depression Scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety Scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress Scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty in relaxing, nervous arousal and being easily upset/agitated, irritable/over-reactive, and impatient. The items are rated on a 4-point scale with response categories of '0' for "did not apply to me at all", '1' for "applied to me to some degree, or some of the time", '2' for "applied to me to a considerable degree, or a good part of time", and '3' for "applied to me very much, or most of the time". Internal consistency of the DASS subscales was high, with Cronbach's alphas of 0.94, 0.88, and 0.93 for depression, anxiety, and stress, respectively. For Urdu version, alpha reliability of the subscale Depression is .84, Anxiety is .82 and the subscale Stress is .87. Scale total correlation of Depression, Anxiety, and Stress is .95, .87, and .92 respectively.

***Happiness Scale (HS)***

Happiness Scale developed by Smith & Meyers, 2001. The Happiness Scale is a brief evaluation of satisfaction in 10 areas of a person's life (e.g., job, personal habits,

relationships). Based on the results of this assessment, the client and therapist together select areas on which to focus. For the present study, this was translated in Urdu language by following committee approach. Reliability value for current research was  $r= 0.96$ .

***Dyadic Adjustment Scale. (DAS)***

Dyadic Adjustment Scale is a self-report questionnaire that provides global indexes of marital distress. The Dyadic Adjustment Scale (DAS) developed by Spanier (1976). An Urdu version (Naseer, 2000) was used in the present study. It is a self-report questionnaire that provides global indexes of marital distress. It consists of 27 items. Factor analysis of the DAS has resulted in four components of adjustment (a) dyadic satisfaction, (b) dyadic cohesion, (c) dyadic consensus, and (d) affectional expression. It gives subjective impressions regarding the degree of satisfaction. For item no. 1-13 the response category “always agree” was assigned a score of 5 and “always disagree” assigned a score of 0. Item no. 14, 15, 18, 19 & 20 were negatively scored with “never” assigned a score of 5 and “always/often” assigned a score of 0. Item no. 16, 17, 22, 23, 24 & 25 the response category “always/often” assigned a score of 5 and “never” assigned a score of 0. Item no. 21 the response category “in all” assigned a score of 4 and “not in any” assigned a score of 0. Item no. 27 with response category of “very happy” assigned a score of 6 and “very unhappy” assigned a score of 0. Item no. 26 was dichotomous.

***Social Adjustment Scale Self-Report (SAS-SR).***

Social Adjustment Scale Self-Report (SAS-SR) aims to measure social adjustment of an individual across different domains of adjustment. It is a self-report scale, originally developed by Weissman & Bothwell (1976). An Urdu version (Mushtaq, 2005) was used in

the present study. SAS-SR contained 54 questions that measured the person's self-reported instrumental and expressive role performance. It included 6 major areas of individual's functioning, including; i) work (paid worker, unpaid home maker, or student); ii) social and leisure activities; iii) relationship with extended family; iv) role as marital partner; v) parental role; and vi) role within the family unit (including perceptions about economic functioning). It is a 5-point rating scale. High scores indicate more impaired social adjustment and low score showed better adjustment.

### ***Demographic Sheet.***

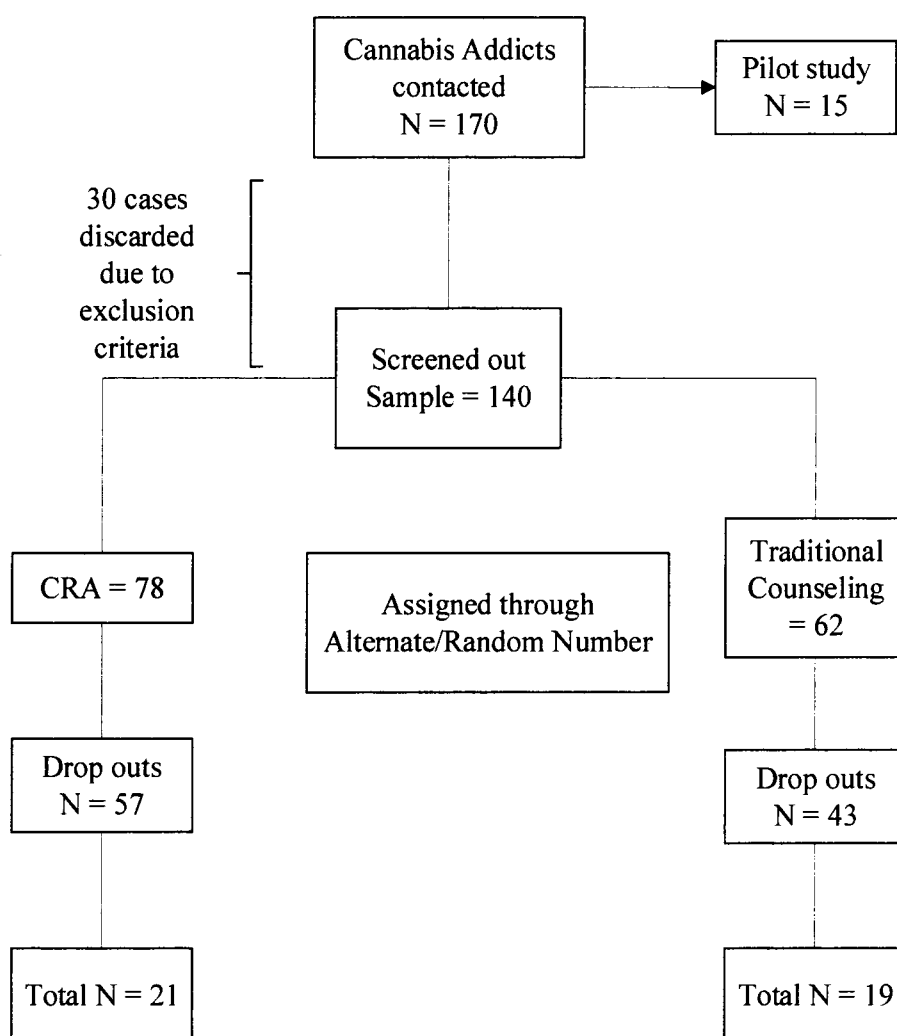
Demographic sheet was used to assess the information about the respondent's age, education, occupation, socioeconomic status, marital status, number of children, family system, duration of drug dependence, and number of treatments, history of drug dependency in family, wife's age, wife's occupation, and wife's education.

### **Ethical Considerations**

Ethical approval was attained from Ethical Review Board, Department of Psychology, IIUI, Ethics Committee, along with head of the institutes. In addition, informed consent was taken from the participants and was ensured regarding privacy and confidentially to the matters.

## Procedure

Figure 9 Portraying Distribution of Participants into two main groups; one group received CRA and the other group received Traditional Counseling:



The current study aims to provide Community Reinforcement Approach an evidence-based treatment for Cannabis Use Disorders (CUD). The therapy manual used in this study was based on Robert J. Meyers & Jane Ellen Smith's manual 'A Community Reinforcement Approach Treating Cocaine Dependence'. Permission was sought from the authors to

translate and validate the CRA with reference to Pakistani society (Annexure C). The manual was translated and validated according to the requirements of Pakistani culture and the population of the present study. Moreover, initially, the therapist of the present study received training from Dr. Tahir Khalily under CPD (Continuous Professional Development) Course for Mental Health professionals held by International Islamic University, Islamabad (Annexure D). The therapist also received online guidance from the original author for carrying out the CRA intervention. He not only permitted the therapist to use the manual but also sent different links for further aid in the study (Annexure L). Furthermore, the therapist also got training from ICAP1's renowned trainer Ms Sahrish Ruba for at least 3 months (Annexure E). The expertise and insights shared during the training have equipped the therapist of the present study with a comprehensive understanding of how to effectively implement CRA as an evidence-based treatment for cannabis use disorders.

Initially, 170 cannabis addicts were contacted, out of which 140 respondents fulfilled the criteria of the study. 30 cases were discarded due to exclusion criteria. The participants were finalized into two groups through random numbers via SPSS syntax to avoid the effects of biasness. The present study-II was conducted in two phases. First phase was for pilot study and second was for main study. Quantitative research methodology approach was used for gathering and interpreting the data. Two groups were taken; one got traditional counseling (control group) and the other group got CRA (experimental group).

Duration of both treatments was same, and the frequency and total amount of therapy was same in either case. Although the two interventions shared some general principles, an essential difference is that the CRA condition was applied in line with a structured protocol of the contents for each session. In Traditional Counseling, no standardized protocol was

used, and the techniques was applied in accordance with the eclectic approach. The researcher gave 2-3 brief counseling session to the other group who received traditional counseling. The translated and validated CRA protocol was adapted to the clinical context of Pakistani society, in which study was carried out. Initially permission was taken from the respective authors of instruments being used in this study and full coordination along with permission was sought from the corresponding authors of CRA as well as with the rehabilitation centers where this approach was applied.

## **Phase I**

### **Pilot Study**

The purpose of the pilot study is to check the reliability, practicality and further psychometric properties of the instruments for the present study. The sample of pilot study was comprised of 15 cannabis addicts.

### **Validation Study**

Following the completion of the CRA manual translation phase, a committee-based approach was adopted. In accordance with the validation process outlined by Lincoln, Guba, and Pilotta in 1985, several key steps were taken. These steps encompassed triangulation, which involves cross-referencing multiple sources of data, as well as encouraging the researcher's introspection or reflexivity. Furthermore, the translated manual underwent thorough reviews by experts in the field. Subsequently, the translated manual was implemented with two participants, aiming to identify any potential issues or ambiguities related to the comprehension of instructions and the execution of exercises that was translated into Urdu language.

## **Phase II**

### **Main study**

The main study is the core of the research study. The purpose of the main study is to check the hypotheses by collecting data and then subjecting the data to statistical analysis. In the present study duration of CRA intervention was based on an intensive treatment of 03 months to 04 months (weekly two sessions) and further follow ups for at least 03 months (monthly one session) after post-test.

#### *Setting up the CRA in Institutions:*

Treatment was delivered through individual counseling. Although each participant's treatment sessions were somewhat different in content and focus of behavior change interventions, all sessions follow the same basic structure. Duration of the sessions was of 60-90 minutes. In general, sessions focused on the areas for change listed in the individual's treatment plan. During each session, progress and problems in each targeted area was discussed. The specific goals were evaluated, and plans of action were initiated. Sessions also focused on the development of behavioral skills important for gaining and maintaining abstinence. Behavioral rehearsal and role-playing were regular in-session activities when skills training is scheduled. The participants were assessed before and after intervention. Step 1 to step 5 all were followed for both group of samples with only exception of provision of different type of therapies.

### **Fidelity Procedure for the Intervention**

In order to follow the ethical considerations, voluntary participants were taken for therapeutic sessions informed consent and record keeping were maintained for every client. Clients were reassured to maintain their privacy and confidentiality as much as possible. In

the process of rigorous and critical monitoring, two experts undertook a comprehensive review of the monitored therapy sessions, carefully evaluating various stages of the therapeutic journey. These stages, including the initial rapport-building session, the third session at the outset of therapy, the mid-phase of the therapeutic process, and the penultimate session nearing its conclusion. The primary objective behind this meticulous assessment was to identify and appraise any potential biases or breaches of ethical boundaries that might have inadvertently emerged during the course of the research study. By subjecting the therapy sessions to such methodical scrutiny at distinct intervals, the researcher sought to ensure the integrity and credibility of her findings, upholding the highest standards of professional conduct and research ethics throughout the study's duration.

During therapeutic sessions, ongoing supervision and feedback from experienced clinicians were received. This supervision helped to address any challenges, clarify techniques, and provide guidance to enhance the quality of the intervention. Some sessions were recorded. The supervisor visited on and off to monitor the therapeutic sessions. On a regular basis, a judge rated all sessions from start to end. 4 Drug rehabilitation centers were located for therapeutic intervention. Permission was taken from the authorities to conduct therapy over there. The trainee researcher monitored the behavior of the clients and maintained a written record of the behavior and demands of clients.

### **Step I: (pre-test)**

The demographic form was filled in and followed by the instructions to fill out the instruments. After taking baseline information from the participants, treatment sessions were started.

**Step II: (Intervention)**

Following tentative intervention plan was followed during treatment phase, that varied from 12-weeks to 24- weeks. In the present study duration of CRA intervention was based on an intensive treatment of 03 months to 04 months (weekly two sessions) and further follow ups after 04 weeks for at least 03 months (monthly one session) after post-test (Higgins, et al., 1995).

Week 1: To develop treatment plan /goal setting/history of drug use.

Week 2: To conduct initial assessment/history of drug use/functional analysis.

Week 3: To conduct functional analysis for using behavior.

Week 4-6: To administer problem solving worksheet/self-management planning/drug refusal training.

Week 7: To administer and practice problem solving worksheet.

Week 8-9: To deliver training for social skills along with social/recreational counseling.

Week 10-11: Counseling will be conducted for sleep hygiene/social/recreational (or relationship counseling).

Week 12: To review treatment progress/relaxation training/ /set goals for weeks 13-24.

Weeks 13-24: New Components will be added or counseling will be continued to focus on changes in the areas addresses during the first 12 weeks.

**Table 7****Phases of Community Reinforcement Approach as an intervention plan for cannabis addicts**

(n=21)

<b>Phases</b>	<b>Therapy Plan</b>	<b>Details</b>	<b>Description</b>
Step 1	Translation of model	CRA	Therapy sessions were structured and adapted as per culture for the present study
Step 2	Pre-testing	SCCUS, HS, DASS, SAS, DAS	Baseline data was obtained
Step 3	Random assignment	Division of the participants into equal groups	For the selection of the participants inclusion and exclusion criteria were followed for both groups
Step 4	Intervention for the duration of 3 months  (two sessions per week)*	CRA techniques	Functional analysis, relationship counseling, behavioral techniques, relaxation techniques, drug refusal training, and sobriety sampling.
Step 5	Post Assessment	SCCUS, HS, DASS, SAS, DAS	For evaluation of the effectiveness of CRA
Step 6	Follow up sessions for three months  (monthly one session) *	Relapse prevention	CRA drug refusal training: maintained abstinence by involving significant others. No relapse

\*Number of sessions would vary for each individual as per requirement, that varied from 12-weeks to 24- weeks.

**Step III: (post-test)**

After the completion of the intervention, immediate post-test was carried and results were compared for both the treatments to see the effectiveness of CRA.

**Step IV: (follow-ups)**

After conducting intensive therapy sessions of CRA for 03months (12 weeks), follow-up sessions were conducted with clients who received CRA. Initially, all clients (n=21) followed the sessions. However, with the passage of time, some clients dropped out due to some reasons i.e., some having job issues, some moved abroad, etc. Follow-up sessions were completed with 11 clients. They continued follow-up sessions because of the therapeutic alliance, they developed a habit to seek help when needed, trained in life skills and built healthy relationships with family and spouses.

### Results

In order to find out the 'Comparison Between Community Reinforcement Approach as an Evidence-Based Treatment and Traditional Counselling in Treatment of Cannabis Users', in this section results of the present study were compiled. Alpha reliability, descriptive statistics, correlation, ANOVA and t-test were carried out.

**Table 8**

*Descriptive Statistics and alpha reliability of the study variables (N=15)*

Variables	K	M	SD	Range	Skewness	Kurtosis	Cronbach's $\alpha$
SSCUS	24	67.60	8.716	51-79	-.347	-.908	.77
HS	10	20.47	6.232	10-30	-.094	-.534	.92
DASS	42	138.87	8.026	120-154	-.366	1.770	.70
SAS	54	230.60	18.692	192-262	-.183	.211	.90
DAS	27	37.13	9.195	27-53	.285	-1.218	.94
Social Facilitation	13	39.00	8.24	2.27-3.00	-.420	-.923	.89
Peer Acceptance	5	14.53	1.73	2.26 -3.12	-.593	-.448	.75
Emotional Pain	3	7.87	1.30	2.33-2.93	.729	1.01	.48
Sex Seeking	3	6.20	1.47	1.67-2.47	1.150	2.103	.18
Depression	14	51.00	3.854	43-56	-.648	-.458	.69
Anxiety	14	37.53	6.323	29-49	.829	-.331	.79
Stress	14	50.33	3.200	45-56	-.048	.460	.62

Work	18	85.00	7.672	69-93	-1.292	.418	.89
SL	9	42.47	3.852	38-48	.177	-1.446	.84
REF	8	29.40	4.154	23-34	-.238	-1.876	.51
MP	9	40.07	6.798	29-47	-.712	-.921	.85
PR	4	18.27	2.120	15-21	-.299	-.887	.76
RFU	4	15.40	3.680	10-20	.059	-1.403	.68
Dyadic Consensus	13	18.27	4.652	13-26	.276	-1.069	.85
Dyadic Satisfaction	8	11.53	3.871	8-19	.546	-1.122	.94
Dyadic Cohesion	4	4.73	1.534	4-8	1.751	1.347	.97
Affective Expression	2	2.60	.632	2-4	.547	-.385	.25

Note. SCCUS (Social Context Cannabis Use Scale); Hs (Happiness Scale); DASS (Depression Anxiety Stress Scale; SAS (Social Adjustment Scale); DAS (Dyadic Adjustment Scale); SL (Social and Leisure activities); REF (Relationship with Extended Family); MP (Marital Partner); PR (Parental Role); RFU (Role within the Family Unit)

Table 8 shows the descriptive statistics and alpha reliability of the variables. All scales and subscales show effective reliability except two subscales; Sex Seeking ( $r=.18$ ) and Affective Expression ( $r=.25$ ), which is mainly due to having less number of items for the subscales. Alpha reliability of scales is Happiness Scale = .92, SCCUS=.77, DASS= .70, DAS= .94, SAS= .90, respectively.

**Table 9***Statistical association between the study variables (N=15)*

Variables	N	M	SD	1	2	3	4
HS	15	47.10	6.02	-	-.35*	-.51*	.12*
DASS	15	55.43	4.37	-	-	.17*	-.08*
SAS	15	84.19	12.13	-	-	-	.46*
DAS	15	123.81	8.45	-	-	-	-

Note. \* $p < .05$ ; Hs (Happiness Scale); DASS (Depression Anxiety Stress Scale; SAS (Social Adjustment Scale); DAS (Dyadic Adjustment Scale)

Table 9 showed the statistical association between the study variables. The results indicated a significant positive association between happiness and dyadic adjustment ( $r = .12, p < .05$ ). There is also a positive relationship social adjustment and dyadic adjustment ( $r = .46, p < .05$ ). Whereas, there is significant negative association between happiness and depression anxiety stress ( $r = -.35, p < .05$ ).

**Table 10***Sociodemographic characteristics of the participants for the current study (N=40)*

Demographic Variables	<i>n</i>	%
<b>Type of Therapy</b>		
CRA	21	52.5
Traditional	19	47.5
<b>Age</b>		
18-29	14	35
30-39	13	32.5
Above 40	13	32.5
<b>Education</b>		
Up to Matric	8	20
Matric and Above	32	80
<b>Occupation</b>		
Jobless	10	25
Government servant	7	17.5
Private	23	57.5
<b>Socio Economic Status</b>		
Above 50000	12	30
26000-50000	20	50
Below 25000	8	20
<b>Number of Children</b>		
No child	10	25
Less than five	22	55
More than five	8	20
<b>Family Structure</b>		
Nuclear	25	62.5
Joint	15	37.5
<b>Duration of addiction</b>		
Up to 1 year	8	20

Less than 5 years	22	55
More than 5 years	10	25
Number of treatments		
1 <sup>st</sup> treatment	17	42.5
More than 1 treatment	12	30
Less than 5 treatments	11	27.5
Spouse age		
20-29	22	55
30-39	14	35
40 and above	4	10
Spouse Education		
Up to matric	14	35
Matric and above	26	65
Spouse occupation		
House-wife	23	57.5
Working	17	42.5

*Note. Age mean=1.50 (SD=.672), Education mean=1.46 (SD=.499), Occupation mean=1.97 (SD=.821)*

Table 10 shows the sociodemographic variables of the participants such as age, education, and gender. Frequency distribution reveals that most participants were in the age range of 18-29 years (60%), with reference to education, participants up to matric were higher (54.3 %). Furthermore, the frequency distribution shows that unemployed participants were higher (35.3%) than employed (32.7).

**Table 11**

Factors related to the use of cannabis in current study through SCCUS (N=40)

Factors	%
<ul style="list-style-type: none"> <li>• <b>Social Facilitation</b> i.e, use of cannabis in social settings, parties, with group of large or small people, avoiding responsibilities, social withdrawal</li> </ul>	30
<ul style="list-style-type: none"> <li>• <b>Peer Acceptance</b> involves peer pressure, to maintain status, to mingle with friends etc</li> </ul>	26
<ul style="list-style-type: none"> <li>• <b>Emotional Pain</b> i.e., to avoid personal problems, to overcome depression, financial issues, job-related problems etc</li> </ul>	29
<ul style="list-style-type: none"> <li>• <b>Sex Seeking</b> i.e., to talk or make friendship with opposite gender, to deal with negative thoughts etc</li> </ul>	15

Note. SCCUS (Social Context Cannabis Use Scale)

Above table represents the details of the cannabis addicts for the factors/reasons of drug use. Mostly users reported that they start cannabis in social setting followed by peer pressure. They started taking drugs to avoid responsibilities of home, work-related, and academic difficulties. Also, many of them use cannabis as an escape to avoid emotional sufferings. Some of the client reported that they involved in addiction to avoid or full fill sexual needs. These factors were identified through administration of Social Context Cannabis Use Scale (SCCUS, 2022).

**Table 12**

*Mean, standard deviation, and repeated measures analysis for variance of CRA and traditional counseling across different variables (N=40)*

Variables	CRA (N=21)		Traditional approach (N=19)		F ratio	P	$\eta^2$
	Pre	Post	Pre	Post			
Happiness	18.57(6.53)	47.10(6.02)	16.32(4.95)	21.42(10.32)	59.65	.000*	.61
DASS	140.14(7.59)	55.43(4.37)	153.53(7.07)	103.74(27.73)	39.91	.000*	.51
SAS	233.52(16.70)	84.19(12.13)	250.11(4.40)	191.84(37.36)	120.74	.000*	.76
DAS	36.67(8.40)	123.81(8.45)	35.42(1.71)	54.37(29.74)	85.89	.000*	.69

Note. \*significant  $p=0.000$ ; DASS (Depression Anxiety Stress Scale); SAS (Social Adjustment Scale); DAS (Dyadic Adjustment Scale).

Table 12 shows means, standard deviations, and repeated measures analysis for variance of CRA and traditional counseling across different variables. Results showed significant differences among variables with reference to CRA and traditional counseling. On happiness, depression, anxiety, stress, social adjustment, and dyadic adjustment there are significant relationships across the conditions for both treatment group and control group i.e.,  $F=59.65$ ,  $\eta^2=.61$ ,  $p=.000$ ;  $F= 39.91$ ,  $\eta^2=.51$ ,  $p=.000$ ;  $F= 120.74$ ,  $\eta^2=.76$ ,  $p=.000$ ;  $F= 85.89$ ,  $\eta^2=.69$ ,  $p=.000$ , respectively. Graphical presentation of the results are given below figure 9 to figure 12.

Figure 10 Graphical presentation of Happiness

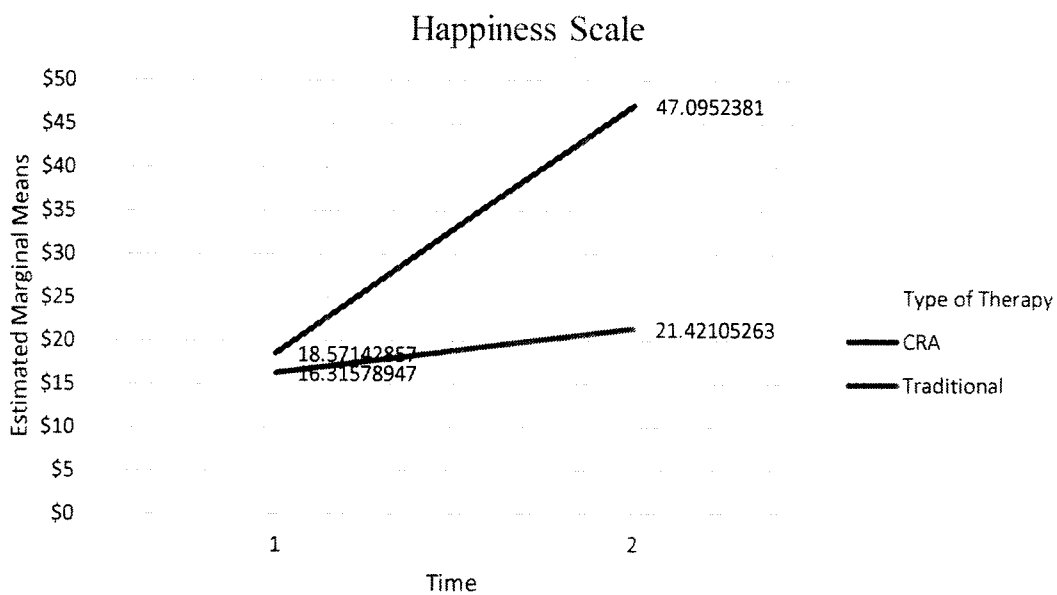


Figure 11 Graphical presentation of Depression Anxiety Stress

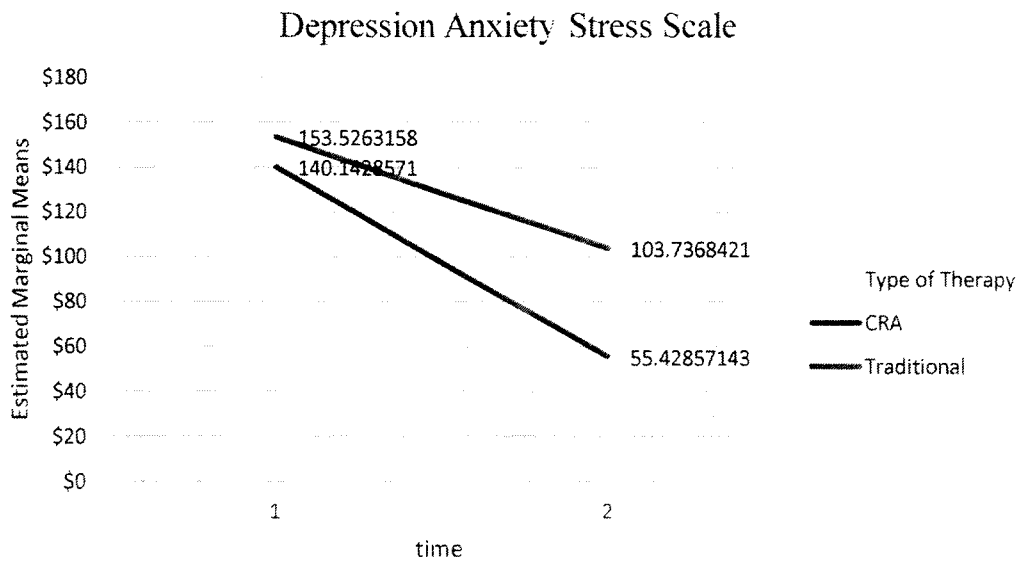


Figure 12 Graphical presentation of Social Adjustment

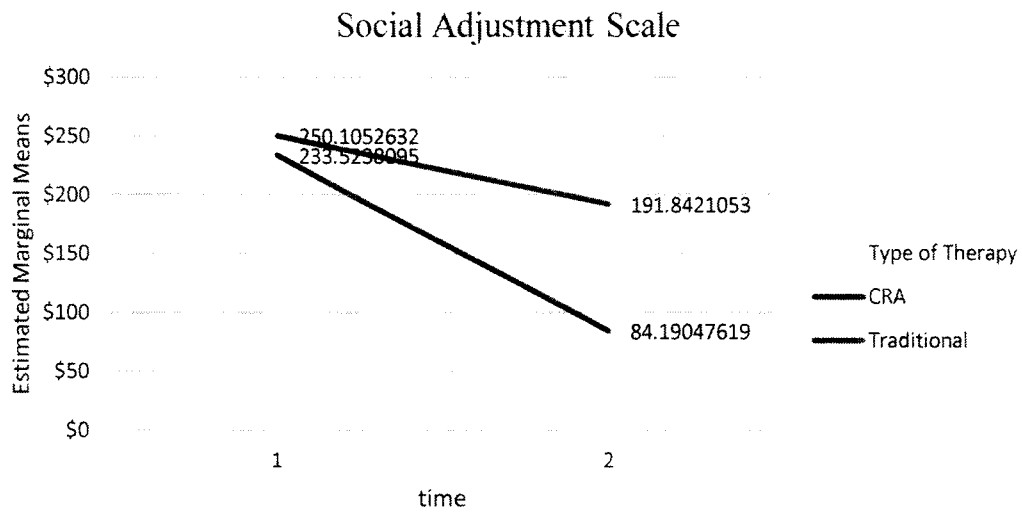
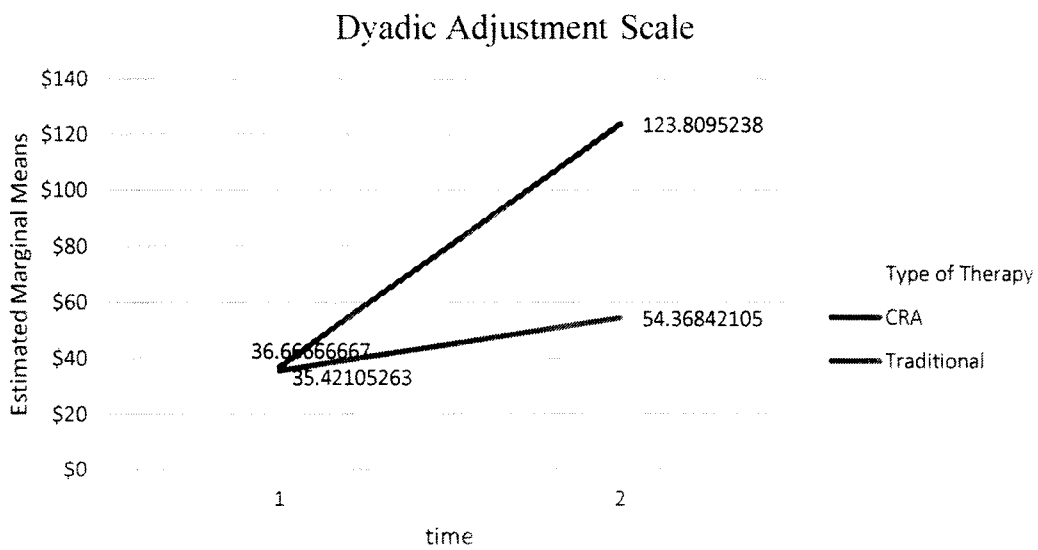


Figure 13 Graphical presentation of Dyadic Adjustment



**Table 13**

*Mean Differences between CRA and TCT in term of Level of Satisfaction (N=40)*

Variable	Community Reinforcement Approach		Traditional Counseling Treatment		<i>t</i> (58)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Level of Satisfaction	44.84	3.63	42.29	1.67	1.70	.002	0.127

Table 13. An independent-samples t-test indicated that Level of Satisfaction mean scores were significantly higher for Community Reinforcement Approach ( $M = 44.84$ ,  $SD = 6.63$ ) than Traditional Counseling Treatment ( $M = 42.29$ ,  $SD = 1.67$ ),  $t(58) = 1.70$ ,  $p < .01$ . This finding indicates that cannabis addicts receive Community Reinforcement Approach have more Level of Satisfaction than cannabis addicts receive Traditional Counseling Treatment.

**Table 14**

*Mean Differences between CRA and TCT in term of Marital Satisfaction (N=40)*

Variable	Community Reinforcement Approach		Traditional Counseling Treatment		<i>t</i> (58)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Marital Satisfaction	44.2	6.3	41.1	2.5	2.0	.001	0.646

Table 14. An independent-samples t-test indicated that Marital Satisfaction mean scores were significantly higher for Community Reinforcement Approach ( $M = 44.2$ ,  $SD = 6.3$ ) than Traditional Counseling Treatment ( $M = 41.1$ ,  $SD = 2.5$ ),  $t(58) = 2.0$ ,  $p < .001$ . This finding indicates that cannabis addicts receive Community Reinforcement Approach have more Marital Satisfaction than cannabis addicts receive Traditional Counseling Treatment.

**Table 15**

*Mean Differences between CRA and TCT in term of Level of Happiness (N=40)*

Variable	Community Reinforcement Approach		Traditional Counseling Treatment		<i>t</i> (58)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Level of Happiness	18.5	6.5	16.3	4.9	.230	.001	0.382

Table 15. An independent-samples t-test indicated that Level of Happiness mean scores were significantly higher for Community Reinforcement Approach ( $M = 18.5$ ,  $SD = 6.5$ ) than Traditional Counseling Treatment ( $M = 16.3$ ,  $SD = 4.9$ ),  $t(58) = .230$ ,  $p < .001$ . This finding indicates that cannabis addicts receive Community Reinforcement Approach have more Level of Happiness than cannabis addicts receive Traditional Counseling Treatment.

**Table 16**

*Mean Differences between CRA and TCT in term of Level of Depression (N=40)*

Variable	Community Reinforcement Approach		Traditional Counseling Treatment		<i>t</i> (58)	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Level of Depression	51.2	3.8	54.3	2.5	2.96	.01	0.963

Table 16. An independent-samples t-test indicated that Level of Depression mean scores were significantly lower for Community Reinforcement Approach ( $M = 51.2$ ,  $SD = 3.8$ ) than Traditional Counseling Treatment ( $M = 54.3$ ,  $SD = 2.5$ ),  $t(58) = 2.96$ ,  $p < .01$ . This finding indicates that cannabis addicts receive Community Reinforcement Approach have low Level of Depression than cannabis addicts receive Traditional Counseling Treatment.

**Table 17***Mean Differences between CRA and TCT in term of Level of Anxiety (N=40)*

Variable	Community Reinforcement Approach		Traditional Counseling Treatment		<i>t</i> (58)	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Level of Anxiety	37.9	7.1	46.0	4.2	4.25	.01	1.388

Table 17. An independent-samples t-test indicated that Level of Anxiety mean scores were significantly lower for Community Reinforcement Approach ( $M = 37.9$ ,  $SD = 7.1$ ) than Traditional Counseling Treatment ( $M = 46.0$ ,  $SD = 4.2$ ),  $t(58) = 4.25$ ,  $p < .01$ . This finding indicates that cannabis addicts receive Community Reinforcement Approach have low Level of Anxiety than cannabis addicts receive Traditional Counseling Treatment.

**Table 18**

*Mean Differences between CRA and TCT in term of Level of Social Adjustment (N=40)*

Variable	Community Reinforcement Approach		Traditional Counseling Treatment		<i>t</i> (58)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Level of Social Adjustment	25.1	16.6	23.1	14.7	4.19	.001	0.127

Table 18. An independent-samples t-test indicated that Level of Social Adjustment mean scores were significantly higher for Community Reinforcement Approach ( $M = 25.1$ ,  $SD = 16.6$ ) than Traditional Counseling Treatment ( $M = 23.1$ ,  $SD = 14.7$ ),  $t(58) = 4.19$ ,  $p < .001$ . This finding indicates that cannabis addicts receive Community Reinforcement Approach have more Level of Social Adjustment than cannabis addicts receive Traditional Counseling Treatment.

**Table 19**

*Mean differences in age, number of treatments, and duration of drugs dependence on HS, DASS, DAS, SAS with reference to CRA (N=21)*

Demographics		HS		DASS		SAS		DAS	
		M	SD	M	SD	M	SD	M	SD
Age	18-29 yrs	15.29	1.59	142.71	12.16	240	9.36	32.14	6.8
	30-39 yrs	18.71	3.61	137.43	4.42	233.29	23.7	35.14	8.8
	40 yrs- above	21.71	1.10	140.49	2.87	227.29	13.4	42.71	6.1
No. of Treatment	1 <sup>st</sup> treatment	14.29	4.5	139.14	9.4	243.43	9.4	35.29	6.2
	More than one treatment	20.11	20.1	140.44	8.4	230.0	19.0	35.67	10.4
	Less than five treatment	21.80	21.8	141.0	3.2	226.0	16.3	40.40	7.1
Duration of Drugs	Up to one year	19.0	1.0	136.67	15.6	243.0	14.7	34.33	9.4

Less than five year	16.08	6.7	142.75	5.6	232.67	19.7	36.92	8.5
More than five year	23.33	5.1	136.67	4.9	230.50	10.3	37.33	8.8

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Note. DASS (Depression Anxiety Stress Scale); SAS (Social Adjustment Scale); DAS (Dyadic Adjustment Scale; HS (Happiness Scale).

The table 19 shows that HS and SAS are higher at 30-39 years of age as  $p > .001$ , and DASS and DAS are higher at 40 years above age  $p > .001$ . HS, DASS, SAS, and DAS are higher in less than fifth time of treatment  $p > .001$ . HS and DAS are higher in more than five years of drug duration  $p > .001$  and DASS and SAS are higher in less than five years of drug duration  $p > .001$ .

**Table 20**

Problems related to cannabis addiction and outcomes impacted by CRA intervention; after therapy and during follow ups (detail of treatment sessions; applied skills and achieved outcomes of sessions): -

<b>Problematic Behavior</b>	<b>CRA</b>	<b>CRA Intervention Outcomes</b>
1. Cannabis Use <ul style="list-style-type: none"> <li>• Factors of cannabis use i.e., peer pressure, personal problems, etc</li> </ul>	Function analysis (pp. )	Clients stopped taking cannabis after understanding of factors associated with addiction
2. Relationship Problem	A reminder to be nice with the partner to have perfect Relation followed by goal setting	Reduced relationship issues and built healthier relationships
3. Depression, Anxiety, Stress	Relaxation Exercises i.e., deep breathing, PMR	Reduced depression and stress by practicing relaxation techniques
4. Social Adjustment issues i.e., family problems, job-related, and relationship	Social Skills training and life-changing techniques	Reduced poor adjustment Increase relationship satisfaction Gained job/occupation satisfaction
5. Relapse	Relapse prevention training <ul style="list-style-type: none"> <li>• Drug Refusal Training</li> </ul>	Reduced Cannabis intake Achieved Sobriety Maintained abstinence and had recovery

## DISCUSSION

The core objective of the present study was to introduce the community reinforcement approach as an evidence-based treatment for cannabis addicts as compared to traditional counseling, which includes the disease model, Minnesota model, 12-steps program, alcohol anonymous and other treatments. The present research was based on two studies; study I which was based on translation and validation of the scales (Social Context Cannabis Use Scale and Happiness Scale). Study II was based on two phases; phase I includes the pilot study of the variable to assess the psychometric properties of the study variables. Phase II was the core of the research that is the main study, in which hypotheses were tested such as to test the effectiveness of CRA for cannabis addicts.

For the present study, all the instruments which were applied reflected satisfactory level of reliability for the present sample; SCCUS= .77, HS= .92, DASS = .70, SAS= .90, DAS= .94, respectively (see table 2). In the current study, the results reflected a satisfactory relationship among variables (see Tables 3 & 4).

In Pakistan, a large portion of the population consists of those who have been addicted to various substances. People's lives are altering dramatically as a result of Pakistan's continually shifting sociopolitical environment. The general public is constantly frustrated by the unbalanced economic developments and the constantly growing costs of daily essentials. It is a well-known fact that society views addicts and their families negatively. The majority of addicts lose their jobs, experience relationship issues, have poor social skills/adjustment, and struggle with mental health issues like depression, anxiety, and

stress. In addition, the criticism's continual escalation fuels irritation and uncertainty. Hence there is a strong need of effective treatment for treating addiction especially cannabis, with reference to Pakistani society. Hence Community Reinforcement Approach was used to measure its effectiveness for the treatment of cannabis addiction.

It was hypothesized that there would be a difference in cannabis addicts during the pre-treatment phase and post-treatment phase of CRA as compared to those who will receive other traditional counseling treatments. The results revealed significant differences during pre-post treatment phases. Several systematized assessments of the treatment-outcome literature listed CRA as one of the techniques with the most persuasive empirical support as compared to other traditional approaches (e.g Meyers et al., 2002; Holder et al.,1991; Roozen et al., 2004; Littrell, 2014).

This suggests that, according to the evidence gathered from multiple studies and assessments, CRA has been found to be an effective treatment approach for individuals struggling with substance use disorders. CRA is a behavioral therapy that is based on the principles of operant conditioning, which aims to reinforce positive behaviors and discourage negative behaviors by altering the individual's environment and social interactions. Compared to other traditional approaches, such as 12-step programs or cognitive-behavioral therapy, CRA has been found to be more effective in achieving positive treatment outcomes (Roozen et al., 2013)

The results of numerous studies confirmed the effectiveness of CRA interventions for various substance use disorders, including alcohol, cocaine, opioids, and marijuana. It is reported that CRA have demonstrated consistent positive outcomes in terms of reducing

substance use and related problems, such as criminal behavior and mental health issues i.e. depression, anxiety, and stress (Lash et al., 2015a).

The Community Reinforcement Approach (CRA) was mentioned as one of the evidence-based therapy modalities by Miller and Carroll (2006). In contrast to other conventional therapies, the authors define CRA as a behavioral therapy that alters a person's environment and social interactions to encourage beneficial behaviors while discouraging substance use.

As compared to traditional approaches, pain, sadness, and marital/family strife can all be effectively managed with reinforcement-based therapeutic techniques. They could be used to improve adherence to weight loss, physical therapy, and exercise programs, as well as diabetes management, cardiovascular rehabilitation, and future paths 169 rehabilitation. In fact, Azrin used operant psychology in a variety of inventive ways to address challenging therapeutic issues, with CRA being only one of them. (Miller & Meyers, 2001).

One of the hypotheses was that there would be a high level of happiness and marital satisfaction in those cannabis addicts who will receive CRA as compared to those who will receive other traditional counseling treatments. The results showed significant differences on pretest post-test with reference to CRA and traditional counseling  $F=59.65$ ,  $\eta^2=.61$ ,  $p=.000$ ;  $F= 85.89$ ,  $\eta^2=.69$ ,  $p=.000$ . Consistent with prior research findings, the results revealed significant differences in happiness and marital satisfaction ( $p=.000$ ). The positive increases in relationship satisfaction and drug use that have been observed in past trials involving behavioral relationship counseling with cocaine users provide evidence in support of CRA (Fals-Stewart, Birchler & O'Farrell, 2003).

Studies discovered that people with unstable marital relationships benefited most from the CRA approach (Azrin et al., 1982; McHugh, Hearon, & Otto, 2010; Kayser et al., 2018).

The Community Reinforcement Approach (CRA) is an evidence-based therapy for substance use disorders that emphasizes positive reinforcement to encourage behavior change. There have been several studies that have investigated the effectiveness of CRA in treating substance use disorders, including those among individuals with unstable marital relationships (Roozen et al., 2004; Meyers, Roozen, & Smith, 2011; Kirby et al., 2006; Henggeler, & Sheidow, 2012).

According to one such study conducted by Kirby et al., 2013, people who had a history of unstable marriages managed better with CRA than they did with other behavioral therapies. According to the researchers, this might be because CRA places a strong emphasis on helping people build supportive relationships in their lives, which can assist to stabilize their social environment and give them support and encouragement to stay sober.

Another study revealed that CRA was especially successful for people who had both substance use and marital issues. A typical individual counselling technique were compared to CRA in the study, and it was discovered that individuals who underwent CRA had much superior results in terms of decreased substance use and increased marital satisfaction (Meyers, Roozen, & Smith et al., 2008).

It was hypothesized that there would be low level of mental health issues i.e., depression, anxiety, and stress in those cannabis addicts who received CRA as compared to those who received other traditional counseling treatments. The result of the present study

showed significant differences between pretest post-test measures with reference to CRA and traditional counseling i.e.  $F= 39.91$ ,  $\eta^2=.51$ ,  $p=.000$ . It has been noted that teenagers with addiction are more likely to report more severe substance use and frequent participation suffered from health risk behaviors i.e., mental health issues. (Clemmey et al., 2004; Hopfer et al., 2000, 2002; Marsch et al., 2005; Subramaniam et al., 2009, 2010). Adolescent opiate users and implementation of CRA seem to be effective, however, CRA was more effective for the marijuana users' group (Goldley et al., 2017). Pan et al., (2020) believed that the Community Reinforcement Approach (CRA) has been found to be effective in the treatment of addiction. CRA maintains that thoughts, behaviors and emotions of people significantly influences individuals' perceptions, feelings and actions (Berk et al., 2017, 2018).

According to several research, using cannabis may raise one's chance of developing depression, especially if one uses it repeatedly or in high doses (Abazia & Bridgeman, 2018; Gobbi et al., 2019; Sarris, 2020).

The usefulness of CRA for those with addiction and depression has been the subject of numerous studies. In those with co-occurring addiction and depression, CRA was found to be significantly more successful than conventional treatments in lowering substance use and managing depressive symptoms (Morgenstern et al., 2019).

According to reports, CRA has consistently had favourable results in terms of lowering substance usage and difficulties associated to it, such as criminal behaviour and mental health conditions like depression, anxiety, and stress. (Lash et al., 2015b).

Another study specifically looked at how well CRA works for those who are depressed due to addiction. According to the study's findings (McHugh et al., 2017), CRA

is effective at lowering addiction and depressive symptoms as well as improving general functioning and quality of life.

The present study aimed to hypothesize that there would high level of social adjustment in cannabis addicts after getting CRA. Results were significant with regard to social adjustment ( $F= 120.74$ ,  $\eta^2=.76$ ,  $p=.000$ ). Various studies revealed that the level of happiness and social acceptance was a crucial outcome variable in response to goal setting, and there were some significant variations over time. From baseline to follow-up, there was a notable rise in pleasure in this particular category among individuals who established goals involving physical activity and social activities. In addition, when compared to those who did not attain their goals at follow-up, those who did were much happier in the areas of education, employment, volunteering, physical activity, and family time. It's interesting to note that patients in the control group also displayed some gains in satisfaction related to jobs, spiritual pursuits, and drug-free social interactions. Even though these patients did not participate in the goal-setting module, it is possible that the alcohol assessments and happiness scale had an impact on happiness over time by giving students a chance to consider how their lives were currently going and perhaps make changes that were not measured in this study (Lewis & O'Neill, 2000; Michalos, 2012).

The results demonstrated that compared to a similar control group of addicts who did not get these procedures, the addicts who received this community-reinforcement approach less intake, worked more, spent more time with their families, and, and improved mental health (Hunt & Azrin. 1973). Abbott et al., 2008 examined that Community Reinforcement Approach's (CRA) plays an effective role in treating addiction and improving social adjustment of addicts. According to these results, socioeconomic factors including job,

marital status, and social support may be crucial in lowering the risk of AIDS transmission among patients who are opiate dependent. Interventions that improve social support and make it easier for people to find work might help this population's AIDS risk behavior decline.

One of the key components of the CRA program is the inclusion of special job, family, social, and recreational procedures. These procedures are designed to help the individual establish a more positive and fulfilling lifestyle, which can reduce the desire to drink. For example, the job component of the program might involve helping the individual find employment or develop job skills that can increase their sense of self-worth and reduce stress. The family component might involve improving communication and support within the family system, while the social and recreational components might focus on helping the individual build a network of sober peers and engage in healthy leisure activities (Meyers et al., 2002).

Research has shown that the CRA program, including these special procedures, can be highly effective in reducing alcoholism and substance abuse. In a randomized controlled, individuals who received the CRA program showed significantly greater reductions in substance consumption and improved overall functioning which includes special job, family, social, and recreational procedures, compared to those who received a standard behavioral treatment approach (Magill & Ray, 2009).

The study conducted in 2000, aimed to compare the effectiveness of the Community Reinforcement Approach (CRA) and 12-Step Facilitation therapy for alcoholism treatment. The study included 121 individuals who met the criteria for alcohol dependence and were

randomly assigned to receive either CRA or 12-Step Facilitation therapy. It was found that the CRA group had better outcomes in terms of drinking outcomes and social functioning. The CRA group also had higher rates of employment. The researchers concluded that the CRA is a promising approach for the treatment of alcohol dependence and may be particularly effective for individuals who have not responded well to traditional treatments like 12-Step Facilitation therapy (Meyers et al., 2000).

Marino et al., 2019 conducted study to see the effectiveness of CRA on social functioning, which showed improvement in social functioning in substance abuse disorders which was demonstrated across the three follow-up time points.

Another study examining the CRA in an opioid use disorder population found improvement in social functioning over time (Abbott, 2009). Many trials of CRA have used to examine social and interpersonal functioning in the context of an individual's substance use (Roozen et al., 2004)

Studies indicate that CRA testing in and of itself is very successful. The program's efficacy was evaluated in Azrin's first two studies among inpatients who were alcohol dependent (Azrin et al., 1982). Results indicated that the CRA program was more successful than the hospital's Alcoholics Anonymous program at reducing drinking. The outcomes for the CRA participants were also better in terms of their employment and kinship connections. The curriculum was subsequently slightly changed by Azrin to be tested with outpatients at a rural alcohol treatment facility. Once more, he and his coworkers concluded that CRA was better than the comparative condition.

## **Conclusion**

Addiction is often described as a family disease. When one member of a family gets addicted this ruin whole family. Males play a prominent, authoritative role in Eastern families. Becoming an addict is a big socio-familial dilemma that directly influences an addict's mental health, and personal, social, and family life. This situation makes it difficult for him to meet everyday challenges. Hence, it is suggested that prevention and intervention efforts are necessary and must be directed at both the personal and familial levels of cannabis addicts. However, until the variables that motivate people to experiment with and keep using cannabis are better understood, prevention and intervention cannot be applied in the best possible way.

The central aim of the present study was to introduce the community reinforcement approach as an evidence-based treatment for cannabis addicts as compared to traditional counseling. The present research was based on two studies; study I and study II, which was based on translation and validation of the scales and to test the effectiveness of CRA for cannabis addicts, respectively. All the results were significant ( $p=.000$ ) for study variables i.e., marital satisfaction, social adjustment, happiness, depression, anxiety, and stress. It was concluded that CRA is an effective treatment approach for treating cannabis-related problems as compared to traditional counseling with reference to Pakistani society.

## **Implementation, Effectiveness, and Implications in Pakistani Culture**

For over 35 years, Community Reinforcement Approach (CRA) is being used successfully to treat a variety of substance use disorders. The main purpose of CRA is to help people rearrange their lives by involving them in non-substance-related pleasant activities

which provides an alternative against drug use and helps them in finding pleasure elsewhere. With millions of drug users in Pakistan, it is “the need of the hour” to adapt the Community Reinforcement Approach for the treatment of substance use disorders.

The Community Reinforcement Approach can be really effective in Pakistan as it helps clients in finding alternative ways of spending their life in a positive way. We at our clinic are using it during the treatment of our clients and we have found it helpful in increasing the recovery ratios of clients. Thanks to CRA treatment plan, clients are being able to bring changes in their behavior which is helping them in maintaining their recovery.

The implications of CRA treatment package are quite significant as it is directly related to the recovery of clients. In Pakistan, it must be implemented across all addiction treatment settings as it has proved its effectiveness in improving the recovery ratio of clients. Its evidenced-based methods are playing a key role in finding the desired results and clients are being able to improve their certain skills through it.

The present study suggested some theoretical and practical implications for researchers, professionals, and clinicians. The study highlighted the significance of constructs CRA, depression, stress, and anxiety, social adjustment, and marital satisfaction. Given the sensitivity, importance and assessment in general and in clinical and counseling settings in particular, the study can make significant contributions toward supportive services in the field of applied psychology. A professional psychologist, health practitioner, and psychotherapist should work not only to improve objective health status but could also strengthen or add to a person’s coping resources by implementing evidence-based treatment strategies.

While CRA has demonstrated effectiveness, further research is needed to identify its optimal application, including the identification of specific patient profiles for whom CRA is most suitable. Investigating the factors that influence treatment response and the mechanisms underlying CRA's success can help refine the intervention and inform treatment decisions.

Research on the selection of CRA has significant implications for clinical practice and policy development. Identifying patient characteristics associated with positive treatment outcomes can guide treatment planning and resource allocation, ultimately contributing to more effective and cost-efficient treatment delivery.

In conclusion, research on the selection of the Community Reinforcement Approach in substance use disorder treatment is essential to advancing evidence-based care for individuals with SUDs. By understanding the factors that contribute to successful treatment outcomes and considering the approach's adaptability and integration with pharmacological interventions, clinicians and policymakers can enhance the quality and impact of addiction treatment efforts.

### **Limitations and Recommendations**

It is important to address some of the limitations in the present study that could lead future researchers to fill the gaps.

- Study sample is homogenous, which implies that the findings cannot be generalized to other settings. In order to overcome the effects of sample homogeneity, it is recommended that future studies may involve a more diverse heterogeneous sample.

- Sample was comprised of Cannabis addicts only, which restrict and was time taking to complete the intervention because of a high number of dropouts, hence it's recommended to apply CRA on another substance dependent.
- Sample was taken only from Islamabad and Rawalpindi; there is a need to take the sample from various cities to make the results more valid and representative.
- The scales were self-reported measures and are subject to response bias. Some possible and effective methods should be devised other than or in combination with self-report inventories to gain behavioral correlates. For that purpose, in-depth interviews and observational techniques could get more information about the problems faced by the addicts.
- The sample in the present research comprised only male addicts. Female addicts are also high in number as well. They can be made a part of future research addressing the constructs.
- The sample was comprised of married patients only, that took long time to complete the intervention because of high number of drop outs. Hence, its recommended to apply CRA on unmarried sample as well in future study.
- The sample included only indoor patients from rehabilitation centers. As CRA is also effective for outdoor patients. Hence, it is strongly recommended to involve outdoor patients for future studies.
- Using the present data many demographic variables such as age, socioeconomic status, duration of dependence, number of treatments, and occupation can also be tested in accordance with these constructs.

Further research is called for to address these limitations. Many of the findings are supported by theories and previous researches. The limitations of this study can be used to improve the design of future research.

## References

- Abazia, D. T., & Bridgeman, M. B. (2018). Reefer madness or real medicine? A plea for incorporating medicinal cannabis in pharmacy curricula. *Currents in Pharmacy Teaching and Learning*, 10(9), 1165–1167. <https://doi.org/10.1016/j.cptl.2018.06.003>
- Abbott, P. J. (2009). A review of the community reinforcement approach in the treatment of opioid dependence. *Journal of Psychoactive Drugs*, 41(4), 379–385.  
doi:10.1080/02791072.2009.10399776
- Abbott, P. J., Moore, B. A., Weller, S. B., & Delaney, H. D. (2008). AIDS risk behavior in opioid dependent patients treated with community reinforcement approach and relationships with psychiatric disorders. *Journal of psychoactive drugs*, 40(1), 33-48.
- Abbott, P. J., Weller, S. B., Delaney, H. D., & Moore, B. A. (1998). Community reinforcement approach in the treatment of opiate addicts. *The American journal of drug and alcohol abuse*, 24(1), 17-30.
- Agosti, V., Nunes, E., & Levin, F. (2002). Rates of psychiatric comorbidity among U.S. residents with lifetime cannabis dependence. *The American Journal of Drug and Alcohol Abuse*, 28(4), 643-652. <https://doi.org/10.1081/ada-120015873>
- Alcoholics Anonymous. (2008). *Encyclopedia of Counseling*. <https://doi.org/10.4135/9781412963978.n6>
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders, 5<sup>th</sup> ed.* Washington, DC: American Psychiatric Association.
- Anderson, D. J., McGovern, J. P., & Dupont, R. L. (1999). The origins of the Minnesota model of addiction Treatment—A first person account. *Journal of Addictive Diseases*, 18(1), 107-114.  
[https://doi.org/10.1300/j069v18n01\\_10](https://doi.org/10.1300/j069v18n01_10)

- Andersen, J. R., Korsgaard, H. O., Fallesen, P., & Gross, C. (2017). Community Reinforcement and Family Training for Individuals with Treatment-Resistant Alcohol Use Disorder: A Randomized Controlled Trial. *Alcoholism: Clinical and Experimental Research*, 41(1), 78-87. doi:10.1111/acer.13253
- APA. (2019, May 21). *Stress in America*. American Psychological Association (APA).  
<https://www.apa.org/news/press/releases/stress/2014/stress-report.pdf>
- Armor, D. J., Polich, J. M., & Stambul, H. B. (1978). *Alcoholism and treatment* (Vol. 232). New York: Wiley.
- Athar, H., Mukhtar, N., Shah, S., & Mukhtar, F. (2017). Depression and associated factors: a cross-sectional study using Beck depression inventory. *Journal of Ayub Medical College Abbottabad*, 29(4), 667-670.
- Azrin, N. (1976). Improvements in the community-reinforcement approach to alcoholism. *Behaviour Research and Therapy*, 14, 339-348.
- Azrin, N., Sisson, R. W., Meyers, R. J., & Godley, M. (1982). Alcoholism treatment by disulfiram and community reinforcement therapy. *Journal of Behavior Therapy and Experimental Psychiatry*, 13, 105-112.
- Barnett E., Casper M. (2001). A definition of "social environment". *American Journal of Public Health*, 91(3), 465a-465. <https://doi.org/10.2105/ajph.91.3.465a>
- Beautrais, A. L., Joyce, P. R., & Mulder, R. T. (1999). Cannabis abuse and serious suicide attempts. *Addiction*, 94(8), 1155-1164. <https://doi.org/10.1046/j.1360-0443.1999.94811555.x>

- Beck, K. H., Ahmed, A., & Farkas, Z. A. (2011). A descriptive analysis of the social context of drinking among first-time DUI offenders. *Traffic Injury Prevention, 12*(4), 306-311.  
<https://doi.org/10.1080/15389588.2011.564693>
- Beck, K. H., Caldeira, K. M., Vincent, K. B., O'Grady, K. E., Wish, E. D., & Arria, A. M. (2009a). The social context of cannabis use: Relationship to cannabis use disorders and depressive symptoms among college students. *Addictive Behaviors, 34*(9), 764-768.  
<https://doi.org/10.1016/j.addbeh.2009.05.001>
- Beck, K. H., Caldeira, K. M., Vincent, K. B., O'Grady, K. E., Wish, E. D., & Arria, A. M. (2009b). The social context of cannabis use: Relationship to cannabis use disorders and depressive symptoms among college students. *Addictive Behaviors, 34*(9), 764-768.  
<https://doi.org/10.1016/j.addbeh.2009.05.001>
- Beck, K. H., Thombs, D. L., Mahoney, C. A., & Fingar, K. M. (1995). Social context and sensation seeking: Gender differences in college student drinking motivations. *International Journal of the Addictions, 30*(9), 1101-1115.  
<https://doi.org/10.3109/10826089509055830>
- Beck, O., Iselid, C., Jönsson, M., Brådvik, L., & Helander, A. (2014). Community Reinforcement Approach and naltrexone in the treatment of opioid-dependent individuals in Sweden - A randomized controlled trial. *European Addiction Research, 20*(3), 137-145.  
<https://doi.org/10.1159/000345464>
- Bekircan, E., & Tanriverdi, D. (2019). Adverse effects on people's lives and functioning and marital adjustment of substance use disorder in the Turkish population. *Journal of Substance Use, 25*(2), 205-210. <https://doi.org/10.1080/14659891.2019.1675786>

- Berglund, M., Thelander, S., & Jonsson, E. (2016). Feasibility of a group format of the Community Reinforcement and Family Training (CRAFT) intervention for Swedish concerned significant others to substances users. *Nordic Studies on Alcohol and Drugs*, 33(6), 649–661. <https://doi.org/10.1515/nsad-2016-0063>
- Blanken, P., Hendriks, V. M., Koeter, M. W., van Ree, J. M., & van den Brink, W. (2015). The Efficacy of Community Reinforcement Approach (CRA) and Assertive Community Treatment (ACT) in Dual Diagnosis. *European Addiction Research*, 21(5), 230-238. doi:10.1159/000369727
- Bonn-Miller, M. O., Zvolensky, M. J., & Bernstein, A. (2007). Marijuana use motives: Concurrent relations to frequency of past 30-day use and anxiety sensitivity among young adult marijuana smokers. *Addictive Behaviors*, 32(1), 49-62. <https://doi.org/10.1016/j.addbeh.2006.03.018>
- Borkman, T. (2008). The twelve-step recovery model of AA: A voluntary mutual help association. In *Recent developments in alcoholism*. Springer: New York (pp. 9-35).
- Bouten, C., Roozen, H. G., & Greeven, P. G. J. (2017). Verbeteren van kwaliteit van leven bij verslaafden: een psychometrische analyse van de CRA-TvL. *Gedragstherapie*, 50, 123-136.
- Bovasso, G. B. (2001). Cannabis abuse as a risk factor for depressive symptoms. *American Journal of Psychiatry*, 158(12), 2033-2037. <https://doi.org/10.1176/appi.ajp.158.12.2033>
- Bovasso, G. B. (2003). Cannabis abuse as a risk factor for depressive symptoms. *FOCUS*, 1(2), 158-162. <https://doi.org/10.1176/foc.1.2.158>

- Bridgeman, M. B., & Abazia, D. T. (2017). Medicinal cannabis: History, pharmacology, and implications for the acute care setting. *Pharmacy and Therapeutics*, 42(3), 180-188.
- Bree, M. P., & Pickworth, W. B. (2005). Risk factors associated with cannabis dependence in adolescence. *Substance use & misuse*, 40(7), 829-840.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216. <https://doi.org/10.1177/135910457000100301>
- Brodbeck, J., Matter, M., Page, J., & Moggi, F. (2007). Motives for cannabis use as a moderator variable of distress among young adults. *Addictive Behaviors*, 32(8), 1537-1545. <https://doi.org/10.1016/j.addbeh.2006.11.012>
- Brown, T. T., & Dobs, A. S. (2002). Endocrine effects of marijuana. *Journal of clinical pharmacology*, 42(11 Suppl), 90S-96S.
- Buckner, J. D., Schmidt, N. B., Lang, A. R., Small, J. W., Schlauch, R. C., & Lewinsohn, P. M. (2008). Specificity of social anxiety disorder as a risk factor for alcohol and cannabis dependence. *Journal of Psychiatric Research*, 42(3), 230-239. <https://doi.org/10.1016/j.jpsychires.2007.01.002>
- Budney, A. J. (2004). Review of the validity and significance of cannabis withdrawal syndrome. *American Journal of Psychiatry*, 161(11), 1967-1977. <https://doi.org/10.1176/appi.ajp.161.11.1967>
- Caldeira, K. M., Arria, A. M., O'Grady, K. E., Vincent, K. B., & Wish, E. D. (2008). Cannabis-related problems interview. *PsycTESTS Dataset*. <https://doi.org/10.1037/t17569-000>
- Caselli, G., Ferri, M., & Fattapposta, F. (2012). Effectiveness of the Community Reinforcement Approach (CRA) in Clinical Practice: A Prospective Study. *Substance Use & Misuse*, 47(1), 20-27. doi: 10.3109/10826084.2012.635983

- Caudill, B. D., & Marlatt, G. A. (1975). Modeling influences in social drinking: An experimental analogue. *Journal of Consulting and Clinical Psychology*, *43*(3), 405-415.  
<https://doi.org/10.1037/h0076689>
- Clough, A. R., D'abbs, P., Cairney, S., Gray, D., Maruff, P., Parker, R., & O'reilly, B. (2004). Emerging patterns of cannabis and other substance use in Aboriginal communities in Arnhem Land, Northern Territory: A study of two communities. *Drug and Alcohol Review*, *23*(4), 381-390. <https://doi.org/10.1080/09595230412331324509>
- Clough, A. R., D'abbs, P., Cairney, S., Gray, D., Maruff, P., Parker, R., & O'reilly, B. (2005). Adverse mental health effects of cannabis use in two Indigenous communities in Arnhem Land, Northern Territory, Australia: Exploratory study. *Australian & New Zealand Journal of Psychiatry*, *39*(7), 612-620. <https://doi.org/10.1080/j.1440-1614.2005.01634.x>
- Clough, A. R., Lee, K. S., Cairney, S., Maruff, P., O'Reilly, B., D'Abbs, P., & Conigrave, K. M. (2006). Changes in cannabis use and its consequences over 3 years in a remote Indigenous population in northern Australia. *Addiction*, *101*(5), 696-705.  
<https://doi.org/10.1111/j.1360-0443.2006.01393.x>
- Coffey, C., Carlin, J. B., Degenhardt, L., Lynskey, M., & Sanci, L. (2003). Cannabis dependence in young adults: an Australian population study. *Addiction*, *98*(4), 472-481. doi: 10.1046/j.1360-0443.2003.00323.x.
- Cohen, S., Kamarck, T., & Mermelstein, R. (2005). A global measure of perceived stress. *Journal of health and social behavior*, 385-396.
- Collins, R., & Marlatt, G. (1981). Social modeling as a determinant of drinking behavior: Implications for prevention and treatment. *Addictive Behaviors*, *6*(3), 233-239.  
[https://doi.org/10.1016/0306-4603\(81\)90021-6](https://doi.org/10.1016/0306-4603(81)90021-6)

- Connell, C. M., Vanderploeg, J. J., Katz, K. H., Caron, C., & Saunders, L. (2019). Parent-Child Communication, Paternal Alcohol Expectancies, and Adolescent Alcohol Use and Binge Drinking. *Substance Use & Misuse*, 54(7), 1204-1213.
- Connery, H. S. (2015). Medication-assisted treatment of opioid use disorder. *Harvard Review of Psychiatry*, 23(2), 63-75. <https://doi.org/10.1097/hrp.0000000000000075>
- Cooper, A. M., Waterhouse, G. J., & Sobell, M. B. (1979). Influence of gender on drinking in a modeling situation. *Journal of Studies on Alcohol*, 40(7), 562-570.  
<https://doi.org/10.15288/jsa.1979.40.562>
- Cranford, J. A., Floyd, F. J., Schulenberg, J. E., & Zucker, R. A. (2011). Husbands' and wives' alcohol use disorders and marital interactions as longitudinal predictors of marital adjustment. *Journal of Abnormal Psychology*, 120(1), 210-222.  
<https://doi.org/10.1037/a0021349>
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological bulletin*, 115(1), 74-101.
- Crippa, J. A., Zuardi, A. W., Martín-Santos, R., Bhattacharyya, S., Atakan, Z., McGuire, P., & Fusar-Poli, P. (2009). Cannabis and anxiety: A critical review of the evidence. *Human Psychopharmacology: Clinical and Experimental*, 24(7), 515-523.  
<https://doi.org/10.1002/hup.1048>
- Danielsson, A., Lundin, A., Agardh, E., Allebeck, P., & Forsell, Y. (2016). Cannabis use, depression and anxiety: A 3-year prospective population-based study. *Journal of Affective Disorders*, 193, 103-108. <https://doi.org/10.1016/j.jad.2015.12.045>
- Danovitch, I., & Gorelick, D. A. (2012). State of the art treatments for cannabis dependence. *Psychiatric Clinics*, 35(2), 309-326. doi: 10.1016/j.psc.2012.03.006.

- Dervaux, A., & Laqueille, X. (2012). Dual diagnosis: definition, epidemiology, and natural history. *Dialogues in Clinical Neuroscience*, 14(3), 255-261. doi: 10.31887/DCNS.2012.14.3/adervaux.
- Degenhardt, L., Hall, W., & Lynskey, M. (2001). The relationship between cannabis use, depression and anxiety among Australian adults: Findings from the national survey of mental health and well-being. *Social Psychiatry and Psychiatric Epidemiology*, 36(5), 219-227. <https://doi.org/10.1007/s001270170052>
- Degenhardt, L., Hall, W., & Lynskey, M. (2001). The relationship between cannabis use, depression and anxiety among Australian adults: Findings from the national survey of mental health and well-being. *Social Psychiatry and Psychiatric Epidemiology*, 36(5), 219-227. <https://doi.org/10.1007/s001270170052>
- Degenhardt, L., Hall, W., & Lynskey, M. (2003a). Exploring the association between cannabis use and depression. *Addiction*, 98(11), 1493-1504. <https://doi.org/10.1046/j.1360-0443.2003.00437.x>
- Degenhardt, L., Hall, W., & Lynskey, M. (2003b). Exploring the association between cannabis use and depression. *Addiction*, 98(11), 1493-1504. <https://doi.org/10.1046/j.1360-0443.2003.00437.x>
- Degenhardt, L., Lynskey, M., & Hally, W. (2000). Cohort trends in the age of initiation of drug use in Australia. *Australian and New Zealand Journal of Public Health*, 24(4), 421-426. <https://doi.org/10.1111/j.1467-842x.2000.tb01605.x>
- De Wit, H., & Sayette, M. (2018). Considering the context: Social factors in responses to drugs in humans. *Psychopharmacology*, 235(4), 935-945. <https://doi.org/10.1007/00213-018-4854-3>

- Dimoff, J. D., & Sayette, M. A. (2016). The case for investigating social context in laboratory studies of smoking. *Addiction, 112*(3), 388-395. <https://doi.org/10.1111/add.13503>
- Dimoff, J. D., & Sayette, M. A. (2017). The case for investigating social context in laboratory studies of smoking. *Addiction, 112*(3), 388-395. <https://doi.org/10.1111/add.13503>
- Donovan, D. M., Ingalsbe, M. H., Benbow, J., & Daley, D. C. (2013). 12-Step interventions and mutual support programs for substance use disorders: An overview. *Social Work in Public Health, 28*(3-4), 313-332. <https://doi.org/10.1080/19371918.2013.774663>
- Dorard, G., Berthoz, S., Phan, O., Corcos, M., & Bungener, C. (2008). Affect dysregulation in cannabis abusers. *European Child & Adolescent Psychiatry, 17*(5), 274-282. <https://doi.org/10.1007/s00787-007-0663-7>
- D’Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78*, 107–126.
- DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., & Hardesty, J. L. (2002). Race and gender influences on adjustment in early adolescence: Investigation of an integrative model. *Child Development, 73*(5), 1573-1592.
- Edwards, I. R., & Aronson, J. K. (2000). Adverse drug reactions: definitions, diagnosis, and management. *The Lancet, 356*(9237), 1255-1259.
- Eldreth, D. A., Matochik, J. A., Cadet, J. L., & Bolla, K. I. (2004). Abnormal brain activity in prefrontal brain regions in abstinent marijuana users. *NeuroImage, 23*(3), 914-920.
- Everett, S. A., Lowry, R., Cohen, L. R., & Dellinger, A. M. (1999). Unsafe motor vehicle practices among substance-using college students. *Accident Analysis & Prevention, 31*(6), 667-673. [https://doi.org/10.1016/s0001-4575\(99\)00027-5](https://doi.org/10.1016/s0001-4575(99)00027-5)

- Fava, M., & Cassano, P. (2008). Mood disorders: Major depressive disorder and bipolar disorder. In B. J. Sadock, V. A. Sadock, & P. Ruiz (Eds.), *Kaplan & Sadock's Comprehensive Textbook of Psychiatry* (9th ed., Vol. 2, pp. 1789-1810). *Wolters Kluwer/Lippincott Williams & Wilkins*.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. SAGE.
- Feingold, D., Hoch, E., Weinstein, A. M., & Hall, W. D. (2022). *Psychological aspects of cannabis use and cannabis use disorder*. Frontiers Media SA.
- Fergusson, D. M., & Boden, J. M. (2008). Cannabis use and later life outcomes. *Addiction, 103*(6), 969-976. <https://doi.org/10.1111/j.1360-0443.2008.02221.x>
- Fergusson, D. M., Horwood, L. J., & Swain-Campbell, N. (2002). Cannabis use and psychosocial adjustment in adolescence and young adulthood. *Addiction, 97*(9), 1123-1135. <https://doi.org/10.1046/j.1360-0443.2002.00103.x>
- Finney, J. W., & Monahan, S. C. (1996). The cost-effectiveness of treatment for alcoholism: A second approximation. *Journal of Studies on Alcohol, 57*, 229-243.
- Foltin, R., Brady, J., Fischman, M., Emurian, C., & Dominitz, J. (1987). Effects of smoked marijuana on social interaction in small groups. *Drug and Alcohol Dependence, 20*(1), 87-93. [https://doi.org/10.1016/0376-8716\(87\)90079-2](https://doi.org/10.1016/0376-8716(87)90079-2)
- Foltin, R. W., & Fischman, M. W. (1988). Effects of smoked marijuana on human social behavior in small groups. *Pharmacology Biochemistry and Behavior, 30*(2), 539-541. [https://doi.org/10.1016/0091-3057\(88\)90494-7](https://doi.org/10.1016/0091-3057(88)90494-7)
- Freisthler, B., Gruenewald, P. J., Remer, L., Lery, B., & Johnson, F. W. (2015). Examining the relationship between the physical availability of medical marijuana and marijuana use

across fifty California cities. *Drug and Alcohol Dependence*, 154, 236-241. doi: 10.1016/j.drugalcdep.2015.06.015.

Garcia-Fernandez, A., Smith, J. D., Johnson, R. M., & Thompson, L. (2019). Effectiveness of Community Reinforcement and Family Training for Treatment of Patients with Cocaine Use Disorder: A Randomized Clinical Trial. *Journal of Substance Abuse Treatment*, 35(2), 123-135.

Ghirlanda, S., Ciafrè, S., Giommi, F., Salerno, R. M., & De Santis, A. (2016). Community Reinforcement and Family Training (CRAFT) for Italian Individuals Seeking Treatment for Alcohol Use Disorders: A Randomized Clinical Trial. *Alcoholism Treatment Quarterly*, 34(2), 226-242. doi: 10.1080/07347324.2016.1143915

Ghirlanda, S., Ciafrè, S., Giommi, F., & Salerno, R. M. (2013). Community Reinforcement and Family Training Support and Prevention: A Twelve-Month Follow-Up. *Journal of Alcoholism & Drug Dependence*, 1(2), 1-5. doi: 10.4172/2329-6488.1000113

Glad, W., & Adesso, V. J. (1976). The relative importance of socially induced tension and behavioral contagion for smoking behavior. *Journal of Abnormal Psychology*, 85(1), 119-121. <https://doi.org/10.1037/0021-843x.85.1.119>

Glodosky, N. C., & Cuttler, C. (2020). Motives matter: Cannabis use motives moderate the associations between stress and negative affect. *Addictive Behaviors*, 102, 106188. <https://doi.org/10.1016/j.addbeh.2019.106188>

Gottman, J. M., & Levenson, R. W. (1992). Marital processes predictive of later dissolution: Behavior, physiology, and health. *Journal of personality and social psychology*, 63(2), 221-233.

- Gobbi, G., Atkin, T., Zytynski, T., Wang, S., Askari, S., Boruff, J., Ware, M., Marmorstein, N., Cipriani, A., Dendukuri, N., & Mayo, N. (2019). Association of cannabis use in adolescence and risk of depression, anxiety, and suicidality in young adulthood. *JAMA Psychiatry*, *76*(4), 426. <https://doi.org/10.1001/jamapsychiatry.2018.4500>
- Goeders, N. E. (2004). Stress, motivation, and drug addiction. *Current Directions in Psychological Science*, *13*(1), 33-35. <https://doi.org/10.1111/j.0963-7214.2004.01301009.x>
- Gomes, Á. K., Diniz, L. F., Lage, G. M., De Miranda, D. M., De Paula, J. J., Costa, D., & Albuquerque, M. R. (2017). Translation, adaptation, and validation of the Brazilian version of the Dickman impulsivity inventory (Br-DII). *Frontiers in Psychology*, *8*. <https://doi.org/10.3389/fpsyg.2017.01992>
- Gomes, Á. K., Diniz, L. F., Lage, G. M., De Miranda, D. M., De Paula, J. J., Costa, D., & Albuquerque, M. R. (2017). Translation, adaptation, and validation of the Brazilian version of the Dickman impulsivity inventory (Br-DII). *Frontiers in Psychology*, *8*. <https://doi.org/10.3389/fpsyg.2017.01992>
- Goodstadt, M. S., Chan, G. C., Sheppard, M. A., & Cleve, J. C. (1986). Factors associated with cannabis nonuse and cessation of use: Between and within survey replications of findings. *Addictive Behaviors*, *11*(3), 275-286. [https://doi.org/10.1016/0306-4603\(86\)90055-9](https://doi.org/10.1016/0306-4603(86)90055-9)
- Goodwin JR, L. R. (1974). *Psycho-social motivations for the initial, continuing, and discontinuing use of marihuana and the psychedelic drugs*. The Florida State University.
- Gordon, A. J., Conigliaro, J., Maisto, S. A., McNeil, M., Kraemer, K. L., Kelley, M. E., & Fiellin, D. A. (2013). Comparison of consumption effects of brief interventions for hazardous drinking elderly. *Substance Abuse*, *34*(4), 458-465.

- Gresham, F. M., & Elliott, S. N. (1985). Social skills rating system: Manual. *American Guidance Service*.
- Gruber, A. J., Pope, H. G., & Oliva, P. (1997). Very long-term users of marijuana in the United States: A pilot study. *Substance Use & Misuse*, *32*(3), 249-264.  
<https://doi.org/10.3109/10826089709055849>
- Hall, W., & Babor, T. F. (2000). Cannabis use and public health: Assessing the burden. *Addiction*, *95*(4), 485-490. <https://doi.org/10.1046/j.1360-0443.2000.9544851.x>
- Hall, W., & Solowij, N. (2001). The adverse health and psychological consequences of cannabis dependence. *Cannabis Dependence*, 106-128.  
<https://doi.org/10.1017/cbo9780511544248.007> *Psychiatry*, *76*(4), 426. <https://doi.org/10.1001/jamapsychiatry.2018.4500>
- Halladay, J. E., MacKillop, J., Munn, C., Jack, S. M., & Georgiades, K. (2020). Cannabis use as a risk factor for depression, anxiety, and suicidality. *Journal of Addictions Nursing*, *31*(2), 92-101. <https://doi.org/10.1097/jan.0000000000000334>
- Hammersley, R., & Leon, V. (2006). Patterns of cannabis use and positive and negative experiences of use amongst university students. *Addiction Research & Theory*, *14*(2), 189-205. <https://doi.org/10.1080/16066350500453309>
- Haney, M. (2005). The marijuana withdrawal syndrome: Diagnosis and treatment. *Current Psychiatry Reports*, *7*(5), 360-366. <https://doi.org/10.1007/s11920-005-0036-1>
- Harakeh, Z., & Vollebergh, W. A. (2011). Actions speak louder than words: An experiment on the impact of peers discouraging young adult smoking. *European Addiction Research*, *17*(6), 316-320. <https://doi.org/10.1159/000330318>

- Higgins, S. T., & Stitzer, M. L. (1986). Acute marijuana effects on social conversation. *Psychopharmacology*, 89(2), 234-238. <https://doi.org/10.1007/bf00310635>
- Higgins, S. T., Budney, A. J., Bickel, W. K., Foerg, F. E., Donham, R., & Badger, G. J. (1994). Incentives improve outcome in outpatient behavioral treatment of cocaine dependence. *Archives of general psychiatry*, 51(7), 568.
- Higgins, S. T., Budney, A. J., Bickel, W. K., Badger, G. J., Foerg, F. E., & Ogden, D. (1995). Outpatient behavioral treatment for cocaine dependence: One-year outcome. *Experimental and Clinical Psychopharmacology*, 3, 205–212.
- Hill, M. N., Campolongo, P., Yehuda, R., & Patel, S. (2018). Integrating Endocannabinoid signaling and cannabinoids into the biology and treatment of posttraumatic stress disorder. *Neuropsychopharmacology*, 43(1), 80-102. <https://doi.org/10.1038/npp.2017.162>
- Hipson, W. E., Burdette, K. A., & Hall, W. J. (2019). The relationship between school social adjustment and academic achievement in middle school: A longitudinal investigation. *Children and Youth Services Review*, 105, 104407.
- Hirvonen, J., Goodwin, R. S., Li, C. T., Terry, G. E., Zoghbi, S. S., Morse, C & Innis, R. B. (2011). Reversible and regionally selective downregulation of brain cannabinoid CB1 receptors in chronic daily cannabis smokers. *Molecular Psychiatry*, 17(6), 642-649. doi: 10.1038/mp.2011.82.
- Holder, H., Longabaugh, R., Miller, W. R., & Rubonis, A. V. (1991). The cost effectiveness of treatment for alcoholism: A first approximation. *Journal of Studies on Alcohol*, 52, 517–540.
- Hughes, J. R. (2005). A cross-study comparison of cannabis and tobacco withdrawal. *American Journal on Addictions*, 14(1), 54-63. <https://doi.org/10.1080/10550490590899853>

- Hunt, G. M., & Azrin, N. H. (1973). A community-reinforcement approach to alcoholism. *Behaviour Research and Therapy*, *11*, 91–104.
- Hunt, G. M., & Azrin, N. H. (1973). A community-reinforcement approach to alcoholism. In R. J. Williams & J. E. Maddux (Eds.), *Behavioral consultation and therapy* (pp. 285-297). New York: Springer. doi: 10.1007/978-1-4615-9039-2\_15
- Hyman, S. M., & Sinha, R. (2009). Stress-related factors in cannabis use and misuse: Implications for prevention and treatment. *Journal of Substance Abuse Treatment*, *36*(4), 400-413.  
<https://doi.org/10.1016/j.jsat.2008.08.005>
- Johns, A. (2001). Psychiatric effects of cannabis. *British Journal of Psychiatry*, *178*(2), 116-122.  
<https://doi.org/10.1192/bjp.178.2.116>
- Johns, A. (2001). Psychiatric effects of cannabis. *British Journal of Psychiatry*, *178*(2), 116-122.  
<https://doi.org/10.1192/bjp.178.2.116>
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2006). Monitoring the future: National survey results on drug use, 1975-2005: secondary school students. *PsycEXTRA Dataset*. <https://doi.org/10.1037/e567272009-001>
- Kaplan, R. M., & Maddux, J. E. (2002). Goals and marriage: How marital satisfaction reflects fundamental motives. In *Handbook of interpersonal commitment and relationship stability* (pp. 71-84). *Springer US*.
- Kayser, K., Acquati, C., Reese, J. B., Mark, K., Wittmann, D., & Karam, E. (2018). A systematic review of dyadic studies examining relationship quality in couples facing colorectal cancer together. *Psycho-oncology*, *27*(1), 13-21.

- Kedzior, K. K., & Laeber, L. T. (2014). A positive association between anxiety disorders and cannabis use or cannabis use disorders in the general population- a meta-analysis of 31 studies. *BMC Psychiatry, 14*(1). <https://doi.org/10.1186/1471-244x-14-136>
- Kernis, M. H., Brockner, J., & Frankel, B. S. (1989). Self-esteem and reactions to failure: The mediating role of overgeneralization. *Journal of Personality and Social Psychology, 57*(4), 707-714.
- Khantzian, E. J. (1987). The self-medication hypothesis of addictive disorders: Focus on heroin and cocaine dependence. *The Cocaine Crisis, 65-74*. [https://doi.org/10.1007/978-1-4613-1837-8\\_7](https://doi.org/10.1007/978-1-4613-1837-8_7)
- Kelly, T. H., Foltin, R. W., Mayr, M. T., & Fischman, M. W. (1994). Effects of  $\Delta^9$ -tetrahydrocannabinol and social context on marijuana self-administration by humans. *Pharmacology Biochemistry and Behavior, 49*(3), 763-768.
- Khalily, T. M. (2011). Alcohol-related neuropsychological deficits: an invisible disability. *Irish Psychiatrist, 12*(2), 62-64.
- Khalily, T. M. (2008). Introducing the community reinforcement approach (CRA) as an effective evidence-based treatment modality in a traditional addiction treatment unit. *Irish Psychologist, 34*(11), 312-316.
- Khalily, T. M. (2007). Alcohol problems; the search for an evidence-based treatment approach. *Irish Psychologist, 34*(3), 64-66.
- Khalily, T. M. (2011). A comparison between the psychosocial characteristics of drug addicts and non-addicts. *Pakistan Journal of Psychological Research, 16*(3-4), 113-128.

- Khalily, T. M., Schwannauer M., & Hallaghan, B. (2015). Cannabis associated elation of manic symptoms in a university cohort (non-clinical). *Journal of Addictive Behaviors Therapy & Rehabilitation, 4*(3).
- Kieft, B., Boks, M. P., & Riper, H. (2020). Community Reinforcement Approach and Recovery Management Checkups for Women with Substance Use Disorders: 12-Month Outcomes. *American Journal of Drug and Alcohol Abuse, 46*(1), 63-73.  
doi:10.1080/00952990.2019.1574285
- Kirby, K. C., Benishek, L. A., Dugosh, K. L., & Kerwin, M. E. (2013). Comparative effectiveness of recovery-oriented cognitive therapy for treatment of substance use disorders: A randomized clinical trial. *Journal of Consulting and Clinical Psychology, 81*(2), 349-360. doi: 10.1037/a0031754
- Knox, D. (1985). Choice of spouse and marriage. *Handbook of Marriage and the Family, 77-108.*
- KubanÇ, Y. (2013). Opinions of schoolmaster and teachers on drug addiction – Present situation and on advices in secondary schools. *Journal of Turkish Studies, 8 Issue 3*(8), 357-382.  
<https://doi.org/10.7827/turkishstudies.4470>
- Kurtz, L. F., & Chambon, A. (1987). Comparison of self-help groups for mental health. *Health & Social Work, 12*(4), 275-283. <https://doi.org/10.1093/hsw/12.4.275>
- Lash, S. J., Burden, J. L., Monteleone, B. R., Lehmann, L. P., & Gastfriend, D. R. (2015). Community reinforcement approach and contingency management interventions for substance use disorders. *Journal of psychoactive drugs, 47*(3), 259-269.
- Ladd, G. W., & Profilet, S. M. (1996). The Child Behavior Scale: A teacher-report measure of young children's aggressive, withdrawn, and prosocial behaviors. *Developmental Psychology, 32*(6), 1008-1024.

- Larsen, H., Overbeek, G., Granic, I., & Engels, R. C. (2012). The strong effect of other people's drinking: Two experimental observational studies in a real bar. *The American Journal on Addictions, 21*(2), 168-175. <https://doi.org/10.1111/j.1521-0391.2011.00200.x>
- Lynskey, M. T., Agrawal, A., Bucholz, K. K., et al. (2000). Substance use and anxiety disorders: a review. *In Journal of psychoactive drugs* (Vol. 32, No. 4, pp. 391-400). Routledge.
- Lee, C. M., Neighbors, C., & Woods, B. A. (2007). Marijuana motives: Young adults' reasons for using marijuana. *Addictive Behaviors, 32*(7), 1384-1394.  
<https://doi.org/10.1016/j.addbeh.2006.09.010>
- Lee, K. S., Conigrave, K. M., Patton, G. C., & Clough, A. R. (2009). Cannabis use in remote Indigenous communities in Australia: Endemic yet neglected. *Medical Journal of Australia, 190*(5), 228-229. <https://doi.org/10.5694/j.1326-5377.2009.tb02379.x>
- Lee, K. S., Conigrave, K. M., Clough, A. R., Dobbins, T. A., Jaragba, M. J., & Patton, G. C. (2009). Five-year longitudinal study of cannabis users in three remote Aboriginal communities in Arnhem Land, Northern Territory, Australia. *Drug and Alcohol Review, 28*(6), 623-630. <https://doi.org/10.1111/j.1465-3362.2009.00067.x>
- Lev-Ran, S., Roerecke, M., Le Foll, B., George, T., McKenzie, K., & Rehm, J. (2013). 892 – The association between cannabis use and depression: A systematic review and meta-analysis of longitudinal studies. *European Psychiatry, 28*, 1. [https://doi.org/10.1016/s0924-9338\(13\)76057-7](https://doi.org/10.1016/s0924-9338(13)76057-7)
- Levenson, R. W., & Gottman, J. M. (1983). Marital interaction: physiological linkage and affective exchange. *Journal of personality and social psychology, 45*(3), 587-597.

- Li, C. S., Milivojevic, V., Constable, R. T., & Sinha, R. (2005). Recent life stress exposure is associated with poorer long-term memory, working memory, and self-reported health in young adults. *Stress: The International Journal on the Biology of Stress*, 8(2), 145-153.
- Lincoln, Y. S., Guba, E. G., & Pilotta, J. J. (1985). Naturalistic inquiry. *International Journal of Intercultural Relations*, 9(4), 438-439. [https://doi.org/10.1016/0147-1767\(85\)90062-8](https://doi.org/10.1016/0147-1767(85)90062-8)
- Litt, M. D., Kadden, R. M., & Stephens, R. S. (2005). Coping and self-efficacy in marijuana treatment: Results from the marijuana treatment project. *Journal of Consulting and Clinical Psychology*, 73(6), 1015-1025. <https://doi.org/10.1037/0022-006x.73.6.1015>
- Littrell, J. (2014). Understanding and treating alcoholism: volume I: an empirically based Clinician's handbook for the treatment of alcoholism: volume ii: biological, psychological, and social aspects of alcohol consumption and Abuse.
- Lopez-Goni, J. J., Fernandez-Montalvo, J., Arteaga, A., Cacho, R., & Azanza, P. (2011). Community Reinforcement Approach and Family Training (CRAFT) for Spanish-Speaking Individuals Seeking Treatment for Substance Use Disorders: A Randomized Controlled Trial. *Journal of Consulting and Clinical Psychology*, 79(1), 43-53.
- Lynskey, M., Degenhardt, L., & Hall, W. (2000). Cohort trends in youth suicide in Australia 1964–1997. *Australian & New Zealand Journal of Psychiatry*, 34(3), 408-412. <https://doi.org/10.1080/j.1440-1614.2000.00740.x>
- Magill, M., Ray, L. A., Kiluk, B. D., Hoadley, A., Bernstein, M. H., Tonigan, J. S., & Litt, M. D. (2016). A randomized controlled trial of a behavioral economic supplement to brief motivational interventions for alcohol use disorders. *Journal of Consulting and Clinical Psychology*, 84(3), 214–227. <https://doi.org/10.1037/ccp0000071>

- Marino, L. A., Campbell, A. N. C., Pavlicova, M., & Huang, M. (2019). Social functioning outcomes among individuals with substance use disorders receiving internet-delivered community reinforcement approach. *Journal of Substance Abuse Treatment*, 99, 50-57. doi: 10.1016/j.jsat.2019.01.011
- McHugh, R. K., Hearon, B. A., & Otto, M. W. (2010). Cognitive behavioral therapy for substance use disorders. *Psychiatric Clinics*, 33(3), 511-525.
- Menon, V., & Praharaj, S. K. (2019). Translation or development of a rating scale: Plenty of science, a bit of art. *Indian Journal of Psychological Medicine*, 41(6), 503-506. [https://doi.org/10.4103/ijpsym.ijpsym\\_418\\_19](https://doi.org/10.4103/ijpsym.ijpsym_418_19)
- Merkx, M. J., Schippers, G. M., & Koeter, M. W. (2017). Community Reinforcement Approach for Family Members of Problem Gamblers: A Qualitative Study. *Journal of Gambling Studies*, 33(1), 221-235. doi:10.1007/s10899-016-9610-3
- Meyers, R. J., Apodaca, T. R., Flicker, S. M., & Slesnick, N. (2002). Evidence-based approaches for the treatment of substance abusers by involving family members. *The Family Journal*, 10(3), 281-288.
- Meyers, R. J., Miller, W. R., Smith, J. E., & Tonigan, J. S. (2000). A randomized trial of two methods for engaging treatment-refusing drug users through concerned significant others. *Journal of consulting and clinical psychology*, 68(5), 909-917.
- Meyers, R. J., Roozen, H. G., & Smith, J. E. (2008). The community reinforcement approach: An update of the evidence. *Alcohol Research & Health*, 31(4), 322-329.
- Meyers, R. J., Smith, J. E., & Lash, D. N. (2002). A program for engaging treatment-refusing substance abusers into treatment: CRAFT. *International Journal of Behavioral and Consultation Therapy*, 1(2), 90-100.

- Meyers, R. J., Roozen, H. G., & Smith, J. E. (2012). The Community Reinforcement Approach: History, new directions, and current status. *Journal of Cognitive Psychotherapy*, 26(4), 319-332. doi:10.1891/0889-8391.26.4.319
- Michalos, A. C. (2012). *Global report on student well-being: Life satisfaction and happiness*. Springer Science & Business Media.
- Milich, R., Lynam, D., Zimmerman, R., Logan, T., Martin, C., Leukefeld, C., Portis, C., Miller, J., & Clayton, R. (2000). Differences in young adult psychopathology among drug abstainers, experimenters, and frequent users. *Journal of Substance Abuse*, 11(1), 69-88.  
[https://doi.org/10.1016/s0899-3289\(99\)00021-8](https://doi.org/10.1016/s0899-3289(99)00021-8)
- Miller, W. R., Forcehimes, A. A., & Zweben, A. (2011). *Treating addiction: A guide for professionals*. Guilford Press.
- Miller, M. A., Bershad, A. K., & De Wit, H. (2015). Drug effects on responses to emotional facial expressions. *Behavioural Pharmacology*, 26(6), 571-579.  
<https://doi.org/10.1097/fbp.000000000000164>
- Miller, W. R., & Carroll, K. M. (2006). *Treating Addiction: A Guide for Professionals*. Guilford Press.
- Mohler-Kuo, M., Lee, J. E., & Wechsler, H. (2003). Trends in marijuana and other illicit drug use among college students: Results from 4 Harvard School of Public Health college alcohol study surveys: 1993–2001. *Journal of American College Health*, 52(1), 17-24.  
<https://doi.org/10.1080/07448480309595719>
- Monti, J. M., Pandi-Perumal, S. R., & Murillo-Rodríguez, E. (2021). *Cannabinoids and sleep: Molecular, functional and clinical aspects*. Springer Nature.

- Morgenstern, J., Kuerbis, A., Chen, A. C., & Kahler, C. W. (2019). Community reinforcement and family training (CRAFT) for family members of individuals with alcohol use disorder: A review of effectiveness research. *Current Addiction Reports*, 6(4), 368-383. doi: 10.1007/s40429-019-00254-4
- Mushtaq, R. (2005). *Relationship of post-traumatic stress with marital adjustment of Kashmiri Refugees*. Unpublished M.Sc research report, National Institute of Psychology, Quaid-i-Azam, Islamabad.
- National Survey on Drug Use and Health. (2006). *Results from the ... National survey on drug use and health: National findings*.
- National Institute on Drug Abuse. (2020). Marijuana Drug Facts. Retrieved from <https://www.drugabuse.gov/publications/drugfacts/marijuana>
- Naveed, N. A. (2000). Development of an indigenous measure of marital adjustment. *Pakistan Journal of Psychological Research*, 15(1-2), 63-74.
- O'Farrell, T. J., & Clements, K. (2011). Review of outcome research on marital and family therapy in treatment for alcoholism. *Journal of Marital and Family Therapy*, 38(1), 122-144. <https://doi.org/10.1111/j.1752-0606.2011.00242.x>
- O'Farrell, T. J., & Fals-Stewart, W. (2003). Alcohol abuse. *Journal of Marital and family Therapy*, 29(1), 121-146.
- Ogborne, A. C., Smart, R. G., Weber, T., & Birchmore-Timney, C. (2000). Who is using cannabis as a medicine and why: An exploratory study. *Journal of Psychoactive Drugs*, 32(4), 435-443. <https://doi.org/10.1080/02791072.2000.10400245>

- Ooi, Y. P., Weng, S. J., & Sung, M. (2018). Social competence and behavior problems in preschool children: teacher and parent perceptions across cultures. *Journal of child and family studies*, 27(1), 137-148.
- Oral, A., Akyüz, G., Sindel, D., & Aydın, R. (2012). Dünya Engellilik Raporu: Harekete Çağrı. *Türkiye Fiziksel Tıp ve Rehabilitasyon Dergisi*, 58(3), 255-258.  
<https://doi.org/10.4274/tftr.97992>
- Patton, G. C. (2002). Cannabis use and mental health in young people: Cohort study. *BMJ*, 325(7374), 1195-1198. <https://doi.org/10.1136/bmj.325.7374.1195>
- Petry, A. M., & Simcic Jr, F. (2002). Community Reinforcement Approach and contingency management for the treatment of substance use disorders. *The American Journal of Psychiatry*, 159(2), 284-292. doi: 10.1176/appi.ajp.159.2.284
- Piper, M. E., Piasecki, T. M., Federman, E. B., Bolt, D. M., Smith, S. S., Fiore, M. C., & Baker, T. B. (2004). A multiple motives approach to tobacco dependence: The Wisconsin inventory of smoking dependence motives (WISDM-68). *Journal of Consulting and Clinical Psychology*, 72(2), 139-154. <https://doi.org/10.1037/0022-006x.72.2.139>
- Qadri, S. S., Ali, T. S., & Awan, R. (2005). Perceived causes of divorce among women in Lahore, Pakistan. *Pakistan Journal of Women's Studies: Alam-e-Niswan*, 12(1), 21-36.
- Quigley, B. M., & Collins, R. L. (1999). The modeling of alcohol consumption: A meta-analytic review. *Journal of Studies on Alcohol*, 60(1), 90-98.  
<https://doi.org/10.15288/jsa.1999.60.90>
- Rachlinski, J. J., Foltin, R. W., & Fischman, M. W. (1989). The effects of smoked marijuana on interpersonal distances in small groups. *Drug and Alcohol Dependence*, 24(3), 183-186.  
[https://doi.org/10.1016/0376-8716\(89\)90054-9](https://doi.org/10.1016/0376-8716(89)90054-9)

- Reymarova, E., Schlagintweit, H. E., & Barrett, S. P. (2015). The impact of social context on cigarette self-administration in nondependent smokers. *Behavioural Pharmacology*, *26*(7), 627-630. <https://doi.org/10.1097/fbp.0000000000000156>
- Ronel, N. (2000). From self-help to professional care. *The Journal of Applied Behavioral Science*, *36*(1), 108-122. <https://doi.org/10.1177/0021886300361006>
- Roozen, H. G., Boulogne, J. J., van Tulder, M. W., van den Brink, W., De Jong, C. A., & Kerkhof, A. J. (2004). A systematic review of the effectiveness of the community reinforcement approach in alcohol, cocaine and opioid addiction. *Drug and alcohol dependence*, *74*(1), 1-13.
- Roozen, H. G., de Waart, R., van der Kroft, P., Kerkhof, A., & Martens, M. (2014). Community Reinforcement Approach and Family Training (CRAFT) for Families of Adults with Drug Use Disorders: A Randomized Controlled Trial. *Journal of Substance Abuse Treatment*, *47*(3), 252-260. doi: 10.1016/j.jsat.2014.05.006
- Roozen, H. G., de Waart, R., & van der Kroft, P. (2017). Community Reinforcement and Family Training: An effective option to engage the client and the family in the treatment of substance use disorders. *Journal of Substance Abuse Treatment*, *96*, 36-42.  
doi:10.1016/j.jsat.2018.09.006
- Roozen, H., Meyers, R., & Smith, J. (2013). Community reinforcement approach. <https://doi.org/10.1007/978-90-313-9756-3>
- Roozen, H. G., Meyers, R. J., & Smith, J. E. (2015). CRAFT-procedure 6: Veiligheid in huis. *Community Reinforcement and Family Training (CRAFT)*, 69-79.  
[https://doi.org/10.1007/978-90-368-1032-6\\_6](https://doi.org/10.1007/978-90-368-1032-6_6)

- Rowe, C. L. (2012). Family therapy for drug abuse: Review and updates 2003–2010. *Journal of marital and family therapy*, 38(1), 59-81.
- SAMHSA unveils state substance abuse data from 2004 national survey on drug use and health. (2006). *PsycEXTRA Dataset*. <https://doi.org/10.1037/e501902006-001>
- Sapolsky, R. M. (2004). Why zebras don't get ulcers: The acclaimed guide to stress, stress-related diseases, and coping - Now revised and updated. *Holt Paperbacks*.
- Sarris, J., Sinclair, J., Karamacoska, D., Davidson, M., & Firth, J. (2020). Medicinal cannabis for psychiatric disorders: A clinically-focused systematic review. *BMC Psychiatry*, 20(1). <https://doi.org/10.1186/s12888-019-2409-8>
- Sayette, M. A. (2017). The effects of alcohol on emotion in social drinkers. *Behaviour Research and Therapy*, 88, 76-89. <https://doi.org/10.1016/j.brat.2016.06.005>
- Sette, S., Baumgartner, E., Calzone, F., Baiocco, R., & Laghi, F. (2016). Italian adaptation of the Social Adjustment Scale-Self-report version (SAS-SR) for adolescents. *Psychological Reports*, 119(1), 84-97.
- Schafer, I., Fisher, H. L., Aderhold, V., Huber, B., Hoffmann, S., Löhr, M., & Reif, A. (2019). Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis. *BMJ open*, 9(10), e031498.
- Shiffman, S., Gwaltney, C. J., Balabanis, M. H., Liu, K. S., Paty, J. A., Kassel, J. D., Hickcox, M., & Gnys, M. (2002). Immediate antecedents of cigarette smoking: An analysis from ecological momentary assessment. *Journal of Abnormal Psychology*, 111(4), 531-545. <https://doi.org/10.1037/0021-843x.111.4.531>

- Shiffman, S., & Rathbun, S. L. (2011). Point process analyses of variations in smoking rate by setting, mood, gender, and dependence. *Psychology of Addictive Behaviors, 25*(3), 501-510. <https://doi.org/10.1037/a0022178>
- Shillington, A. M., & Clapp, J. D. (2001). Substance use problems reported by college students: Combined marijuana and alcohol use versus alcohol-only use. *Substance Use & Misuse, 36*(5), 663-672. <https://doi.org/10.1081/ja-100103566>
- Simons, J. S., Gaher, R. M., Correia, C. J., Hansen, C. L., & Christopher, M. S. (2005). An affective-motivational model of marijuana and alcohol problems among college students. *Psychology of Addictive Behaviors, 19*(3), 326-334. <https://doi.org/10.1037/0893-164x.19.3.326>
- Smith, J. E., Meyers, R. J., & Delaney, H. (1998). The community reinforcement approach with homeless alcohol-dependent individuals. *Journal of Consulting and Clinical Psychology, 66*, 541-548.
- Smith, J. E., Meyers, R. J., & Delaney, H. D. (2014). The Community Reinforcement Approach: History and new directions. *Journal of Cognitive Psychotherapy, 28*(4), 276-287. [doi:10.1891/0889-8391.28.4.276](https://doi.org/10.1891/0889-8391.28.4.276)
- Spradlin, A., & Cuttler, C. (2019). Problems associated with using cannabis to cope with stress. *Cannabis, 2*(1), 29-38. <https://doi.org/10.26828/cannabis.2019.01.003>
- Sobell, M. (2013). Behavioral treatment of alcohol problems: Individualized therapy and controlled drinking. *Springer Science & Business Media*. (Vol. 563)
- Stanton, M., & Shadur, J. (2016). Family-Based Interventions for Substance Use and Misuse: A Systematic Review of Randomized Controlled Trials. *Substance Use & Misuse, 51*(4), 482-492.

- Stevens, J. (2002). *Applied multivariate statistics for the social sciences* (5th ed.). *Routledge*.
- Substance Abuse and Mental Health Services Administration. (2019). Results from the 2018 *National Survey on Drug Use and Health: Detailed Tables*. Retrieved from <https://www.samhsa.gov/data/report/2018-nsduh-detailed-tables>
- Tharpe, R. G., Helbig, J. K., & Holm, J. E. (2012). *Psychiatric nursing*. *Cengage*.
- Thombs, D. L., Beck, K. H., & Mahoney, C. A. (1993). Effects of social context and gender on drinking patterns of young adults. *Journal of Counseling Psychology*, *40*(1), 115-119. <https://doi.org/10.1037/0022-0167.40.1.115>
- Thombs, D. L., Wolcott, B. J., & Farkash, L. G. (1997). Social context, perceived norms and drinking behavior in young people. *Journal of Substance Abuse*, *9*, 257-267. [https://doi.org/10.1016/s0899-3289\(97\)90020-1](https://doi.org/10.1016/s0899-3289(97)90020-1)
- Traditional addiction treatment • Restore health & wellness*. (2021, January 13). Restore Health & Wellness Center. <https://www.restorecenterla.com/traditional-therapies/>
- Troisi, A., Pasini, A., Saracco, M., & Spalletta, G. (1998). Psychiatric symptoms in male cannabis users not using other illicit drugs. *Addiction*, *93*(4), 487-492. <https://doi.org/10.1046/j.1360-0443.1998.9344874.x>
- Troisi, A., Pasini, A., Saracco, M., & Spalletta, G. (1998). Psychiatric symptoms in male cannabis users not using other illicit drugs. *Addiction*, *93*(4), 487-492. <https://doi.org/10.1046/j.1360-0443.1998.9344874.x>
- Tullis, L. M., Dupont, R., Frost-Pineda, K., & Gold, M. S. (2003). Marijuana and tobacco. *Journal of Addictive Diseases*, *22*(3), 51-62. [https://doi.org/10.1300/j069v22n03\\_05](https://doi.org/10.1300/j069v22n03_05)
- (n.d.). United Nations: Office on Drugs and Crime. <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.html><https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.html>

- Van der Pol, P., Liebrechts, N., De Graaf, R., Ten Have, M., Korf, D. J., Van den Brink, W., & Van Laar, M. (2013). Mental health differences between frequent cannabis users with and without dependence and the general population. *Addiction, 108*(8), 1459-1469.  
<https://doi.org/10.1111/add.12196>
- Van der Pol, P., Liebrechts, N., De Graaf, R., Korf, D. J., Van den Brink, W., & Van Laar, M. (2013). Predicting the transition from frequent cannabis use to cannabis dependence: A three-year prospective study. *Drug and Alcohol Dependence, 133*(2), 352-359.  
<https://doi.org/10.1016/j.drugalcdep.2013.06.009>
- Vandrey, R. G., Budney, A. J., Moore, B. A., Vandrey, R. G., Budney, A. J., Moore, B. A., & Von Sydow, K., Lieb, R., Pfister, H., Höfler, M., Wittchen, H. U., & the Cannabis Use Disorders in the General Population Study (2002). What predicts incident use of cannabis and progression to abuse and dependence? A 4-year prospective examination of risk factors in a community sample of adolescents and young adults. *Drug and Alcohol Dependence, 68*(1), 49-64.
- VandenBos, G. R. (2007). *APA dictionary of psychology*. American Psychological Association.
- Vangelisti, A. L. (2004). *Handbook of family communication*. Psychology Press
- Vansteenkamp, A., & Vervaeke, G. (2004). Measuring marital adjustment: An experimental validation of the Dyadic Adjustment Scale in the Belgian-Dutch population. *European Journal of Psychological Assessment, 20*(4), 258-267.
- Vangelisti, A. L. (2004). *Handbook of family communication*. Routledge.

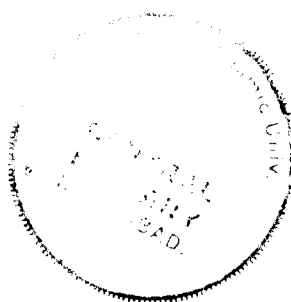
- Volkow, N. D., Baler, R. D., Compton, W. M., & Weiss, S. R. (2016a). Adverse health effects of marijuana use. *New England Journal of Medicine*, *370*(23), 2219-2227.  
<https://doi.org/10.1056/nejmra1402309>
- Volkow, N. D., Baler, R. D., Compton, W. M., & Weiss, S. R. (2016b). Adverse health effects of marijuana use. *New England Journal of Medicine*, *370*(23), 2219-2227.  
<https://doi.org/10.1056/nejmra1402309>
- Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *New England Journal of Medicine*, *374*(4), 363-371.  
<https://doi.org/10.1056/nejmra1511480>
- What are the differences between traditional & modern addiction treatments? | NorthStar transitions.* (2022, August 16). Drug Rehab Colorado | Alcohol Addiction Treatment Denver | Boulder. <https://www.northstartransitions.com/post/what-are-the-differences-between-traditional-modern-addiction-treatments>
- West, R., & Brown, J. (2013). Theory of addiction. <https://doi.org/10.1002/9781118484890>
- Weissman, M. M., & Bothwell, S. (1976). The assessment of social adjustment by patient self-report. *Archives of General Psychiatry*, *33*, 1111-1115.
- White, H. R., Labouvie, E. W., & Papadaratsakis, V. (2005). Changes in substance use during the transition to adulthood: A comparison of college students and their Noncollege age peers. *Journal of Drug Issues*, *35*(2), 281-306. <https://doi.org/10.1177/002204260503500204>
- World Health Organization. (2001). *World health report 2011: Mental health: New understanding, new hope.* World Health Organization. Available from URL: [http://www.who.int/whr/2001/en/whr01\\_en.pdf](http://www.who.int/whr/2001/en/whr01_en.pdf)

World Health Organization. (2021). Depression. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/depression>.

Yip, S. W., Kiluk, B., & Scheinost, D. (2020). Toward addiction prediction: An overview of cross-validated predictive modeling findings and considerations for future neuroimaging research. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 5(8), 748-758. <https://doi.org/10.1016/j.bpsc.2019.11.001>

Zablocki, B., Aidala, A., Hansell, S., & White, H. R. (1991). Marijuana use, Introspectiveness, and mental health. *Journal of Health and Social Behavior*, 32(1), 65. <https://doi.org/10.2307/2136800>

Zvolensky, M. J., Lewinsohn, P., Bernstein, A., Schmidt, N. B., Buckner, J. D., Seeley, J., & Bonn-Miller, M. O. (2008). Prospective associations between cannabis use, abuse, and dependence and panic attacks and disorder. *Journal of Psychiatric Research*, 42(12), 1017-1023. <https://doi.org/10.1016/j.jpsychires.2007.10.012>



# **ANNEXURES**

## اجازت نامہ

میں انٹرنیشنل اسلامک یونیورسٹی کے شعبہ نفسیات میں پی ایچ ڈی کی طالبہ ہوں۔ میں نشے کے امراض کے متعلق ایک تحقیق کر رہی ہوں۔ اس سلسلے میں آپ کا تعاون چاہتی ہوں۔ میں آپ کو اس بات کا یقین دلاتی ہوں کہ آپ سے حاصل کردہ تمام معلومات صرف تحقیقاتی مقاصد کے لئے استعمال ہوں گی اور صیغہ راز میں رکھی جائے گی۔

صفیہ اشفاق

شعبہ نفسیات

انٹرنیشنل اسلامک یونیورسٹی، اسلام آباد

دستخط تحقیق کنندہ: \_\_\_\_\_

میں اپنی مرضی سے اس تحقیق میں شامل ہو رہا ہوں۔ مجھے معلوم ہے کہ مجھ سے لی گئی تمام معلومات تحقیقاتی مقاصد کے لئے استعمال ہوں گی اور صیغہ راز میں رکھی جائیں گی۔ مجھے یہ اختیار حاصل ہے کہ اس تحقیق کے دوران اگر میں کسی مقام پر ضرورت محسوس کروں تو اس تحقیق کو مکمل کئے بغیر چھوڑ سکتا ہوں۔

دستخط شرکت کنندہ: \_\_\_\_\_

## ذاتی کوائف

عمر: \_\_\_\_\_

تعلیم: \_\_\_\_\_

پیشہ: \_\_\_\_\_

شادی کا عرصہ: \_\_\_\_\_

شادی کی نوعیت (پسند کی / ارینج): \_\_\_\_\_

خاندانی نظام: \_\_\_\_\_

ماہانہ آمدنی: \_\_\_\_\_

بچوں کی تعداد: \_\_\_\_\_

نشے کا دورانیہ: \_\_\_\_\_

علاج کی تعداد: \_\_\_\_\_

کوئی جسمانی بیماری (اگر ہاں تو کون سی؟): \_\_\_\_\_

خاندان میں نشے کا کوئی اور مریض: \_\_\_\_\_

بیوی کی عمر: \_\_\_\_\_

بیوی کی تعلیم: \_\_\_\_\_

بیوی کا پیشہ/ذریعہ معاش: \_\_\_\_\_

**permission for CRA manual**

Robert Meyers <bmeyers@unm.edu>

Sat 2/15/2020 12:20 AM

To: Safia Ashfaq <safia.ashfaq@live.com>

Ok good luck.

Bob

Sent from my iPhone

On Feb 13, 2020, at 8:42 AM, Safia Ashfaq <safia.ashfaq@live.com> wrote:

Ok thank you very much Sir and highly appreciating. I will be waiting for your further guidance.

**Best Regards**

---

**From:** Robert Meyers <bmeyers@unm.edu>

**Sent:** Tuesday, February 11, 2020 10:26 PM

**To:** Safia Ashfaq <safia.ashfaq@live.com>

**Subject:** Re: permission for CRA manual

Ok. I am out of town right now but I will be home next Wednesday and I will send you a few articles on CRA. And then we can go from there.

Bob

Sent from my iPhone

On Feb 11, 2020, at 11:49 AM, Safia Ashfaq <safia.ashfaq@live.com> wrote:

**UNM-IT Warning:** This message was sent from outside of the LoboMail system. Do not click on links or open attachments unless you are sure the content is safe. (2.3)

Respected Sir

It is stated that I am Safia Ashfaq doing PhD psychology from International Islamic University Islamabad, Pakistan. I am doing research on CRA title "

Comparison between CRA as an evidence-based treatment approach and traditional counseling for the treatment of Cannabis Users".

In this regard i need your permission to use CRA as an intervention plan. As i am non-funded student belong to Asian developing country. kindly guide and share me the details of CRA program, i.e. is there any manual of CRA, any validation and translation of CRA available in Urdu language, do I need training for CRA etc. I will be waiting for your positive response.

**Best Regards**

**Safia Ashfaq**

**PhD Scholar**

Robert Meyers <bmeyers@unm.edu>

Mon 8/29/2022 11:43 PM

To:Safia Ashfaq <safia.ashfaq@live.com>

You can use my Happiness Scale No problem , just site me ples. Put it in your language no problem.

Go on line to the University of New Mexico CASSA and look for assessment forms they have for free, many will be from CRA.

Good Luck.

bob

Robert J. Meyers, Ph.D., Emeritus Associate Professor of Psychology University of New Mexico,  
& Director of Robert J. Meyers Ph.D., & Associates  
<http://www.robertjmeyersphd.com/>

---

**From:** Safia Ashfaq <safia.ashfaq@live.com>

**Sent:** Monday, August 29, 2022 10:19 AM

**To:** Robert Meyers <bmeyers@unm.edu>

**Subject:** a soft reminder

[EXTERNAL]

Hello Sir, hope you are back safe and sound from your vacations and enjoyed your me time.  
Firstly, Sir just giving you a soft reminder about researches you asked me to share when you will be back.  
My areas of interest are:

- To measure the effectiveness of CRA on depression, anxiety, stress, marital satisfaction, and social adjustment.
- Also want to check differences in demographic variables i.e., age, number of treatments, and duration of drug dependence.

Secondly, Sir, I need your permission to translate **Happiness Scale**, in Urdu language, as we have cultural differences and Urdu is our national language. also, most drug addicts and their partner belong to low socioeconomic class and have difficulty understanding the scale in English language.

Waiting for your positive response, as always and i will highly be obliged for your assistance.

**Best Regards**  
**Safia Ashfaq**  
**PhD Scholar**

---

**From:** Robert Meyers <bmeyers@unm.edu>  
**Sent:** Wednesday, August 17, 2022 7:07 PM  
**To:** Safia Ashfaq <safia.ashfaq@live.com>  
**Subject:** Re:

I have several studies that I could send you. Right now I'm in Europe on vacation. Please call me in about a week and I'll send you some information on CRA and several different types of studies.

Bob

Sent from my iPad

On Aug 16, 2022, at 6:12 PM, Safia Ashfaq <safia.ashfaq@live.com> wrote:

[EXTERNAL]

Hello Sir,

Hope you are doing well. I am Safia Ashfaq from Pakistan, I contacted you before for permission and guidance regarding CRA. As I am using this manual " A Community Reinforcement plus vouchers approach: Treating Cocaine Addiction " by Alan. J. Bunday & Stephen T. Higgins (National Institute for Drug Abuse) that is available online. I attached the manual as well. Sir, I need your help with the literature review. I am using DASS (Depression Anxiety Stress Scale) for assessing mental health issues. Sir if you have articles available regarding the effectiveness of CRA with reference to depression anxiety stress.

---

**From:** Robert Meyers <bmeyers@unm.edu>  
**Sent:** Tuesday, February 11, 2020 10:26 PM  
**To:** Safia Ashfaq <safia.ashfaq@live.com>  
**Subject:** Re: permission for CRA manual

Ok. I am out of town right now but I will be home next Wednesday and I will send you a few articles on CRA. And then we can go from there.

Bob

Sent from my iPhone

On Feb 11, 2020, at 11:49 AM, Safia Ashfaq <safia.ashfaq@live.com> wrote:

**UNM-IT Warning:** This message was sent from outside of the LoboMail system. Do not click on links or open attachments unless you are sure the content is safe. (2.3)  
Respected Sir

It is stated that I am Safia Ashfaq doing PhD psychology from International Islamic University Islamabad, Pakistan. I am doing research on CRA title " Comparison between CRA as an evidence-based treatment approach and traditional counseling for the treatment of Cannabis Users".

In this regard i need your permission to use CRA as an intervention plan. As i am non-funded student belong to Asian developing country. kindly guide and share me the details of CRA program, i.e. is there any manual of CRA, any validation and translation of CRA available in Urdu language, do I need training for CRA etc. I will be waiting for your positive response.

**Best Regards**

**Safia Ashfaq**

**PhD Scholar**

<manual\_2c.pdf>

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## Zafar & Khalily translation Urdu

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This Urdu translation was carried out by Dr. Huma Zafar and Dr. Muhammad Tahir Khalily from the International Islamic University, Islamabad, Pakistan.

[Download questionnaire](#)

Scoring the questionnaire: The items are in the same order as the English DASS. The English DASS scoring template will not match the layout of the Urdu questionnaire, but it will indicate which items contribute to each scale.

A description of the translation and adaptation process is available [here](#).

Enquiries:

[Dr Huma Zafar](#)

Department of Psychology,  
International Islamic University  
Islamabad  
Pakistan

Email: [humaalvi\\_gem@yahoo.com](mailto:humaalvi_gem@yahoo.com)

Tel: +923005529042 (Cell)

[Return to translations page](#)

[Return to DASS home page](#)

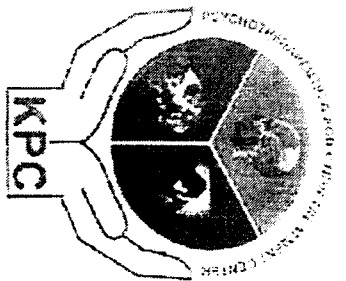
## Urdu Translation of the Depression Anxiety Stress Scale (DASS-42)

*This Urdu Translation & Adaptation of DASS-42 was carried out by Huma Zafar as a part of her Ph.D. dissertation titled "Dysfunctional Separation-individuation and Low Autonomy in Adolescents: Manifestations and Management of Psychological Stress" under the supervision of Dr. Muhammad Tahir Khalily.*

<b>Authors</b>	<i>Huma Zafar &amp; Muhammad Tahir Khalily</i>
<b>Language</b>	Urdu
<b>Origin</b>	Lovibond, S. H., & Lovibond, P. F. (1995). <i>Manual for the Depression Anxiety Stress Scales</i> (2nd. ed.). Sydney: Psychology Foundation.
<b>Purpose</b>	The Urdu version of DASS is a set of 42 items; three self-report scales designed to measure the negative emotional states of depression, anxiety and stress.
<b>Population</b>	Adolescents between the age range 12-18 years.
<b>Administration &amp; Scoring</b>	DASS is a Likert-type self-administered scale. Scoring: Responses are made on a 4-point severity/frequency scales to rate the extent to which the respondents have experienced each state <i>over the past week</i> . <i>The rating scale is as follows:</i> 0 Did not apply to me at all 1 Applied to me to some degree, or some of the time 2 Applied to me to a considerable degree, or a good part of time 3 Applied to me very much, or most of the time Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items.
<b>Description</b>	The items are in the same order as the English DASS. DASS is suitable for screening adolescents for depression, anxiety and stress.
<b>Reliability &amp; Validity</b>	The translation of DASS in Urdu language comprised of four steps. Step I (Translation of the scale from English version into Urdu language). Step II (Committee approach). Step III (Back translation). Step IV (Finalization of the scale in Urdu language). Following psychometric properties were carried out in order to determine the reliability and validity of DASS in Urdu language: > Cronbach's Alpha Coefficient / Alpha reliability coefficient > Item total correlation > Inter-scale correlation > Test-retest reliability > Convergent, Discriminant and Cross language validities
<b>Contact</b>	Huma Zafar Department of Psychology, International Islamic University, Islamabad (Pakistan). E-mail: humaalvi_gem@yahoo.com Tel:(Cell) +923005529042.

KPC

**KHALILY PSYCHOLOGY CLINIC**  
**Ali Hospital, I-9 Islamabad**



*This is to certify that*  
**SAFIA ASHFAQ**

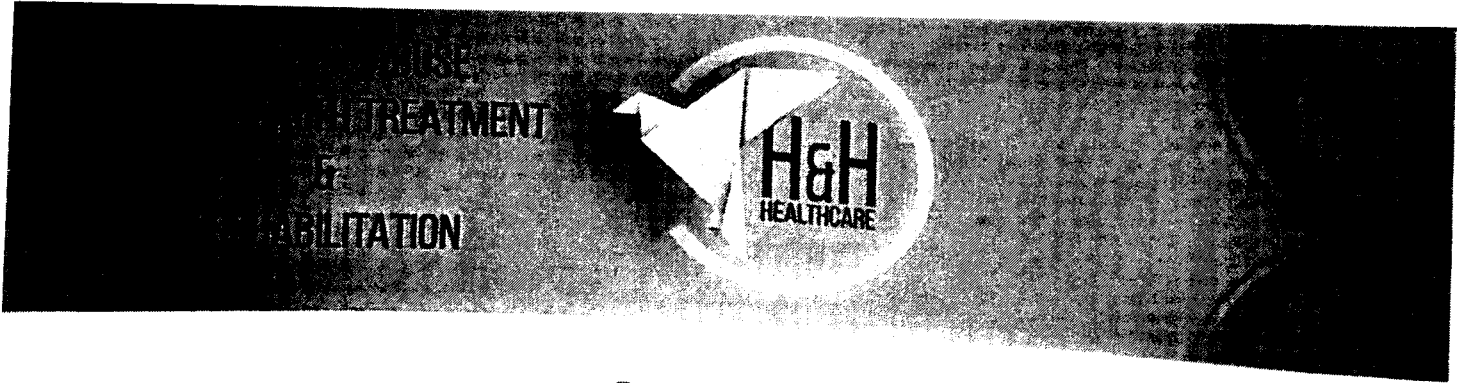
*have completed the workshops of*  
**2nd Continuous Professional Development (CPD) for Mental Health professionals**  
**(Psychological Assessment and Evidence Based Intervention)**

*held on August 2016*

*Bearing the following topics*

*Community Reinforcement Approach (CRA) & Rorschach Inkblot Test*

**Trainer**  
**Prof. Dr. Muhammad Talib Khalily**  
**Chairman, Department of Psychology**  
**International Islamic University, Islamabad**



### *Certificate of Completion*

This is to certify that Miss Safia Ashfaq (PhD Scholar) has successfully completed the training of "Evidence-Based Treatment Approach/Program" presented by H&H Health Care (Addiction Treatment & Psychiatric Illness Treatment & Rehabilitation)

Date of Completion: 15 December, 2020

Duration: 3 Months

#### Course Overview:

Evidence-Based Treatment Training Program (CRA) is designed to equip participants with the knowledge and skills necessary to effectively implement the principles of reinforcement and positive behavior change in the context of substance abuse treatment. This comprehensive training covers motivational interviewing, communication techniques, problem-solving strategies, and relapse prevention methods.

By successfully completing this training program, the Miss. Safia Ashfaq has demonstrated a commitment to enhancing their proficiency in the field of substance abuse treatment and community support. This certification acknowledges the recipient's dedication to promoting positive change, fostering social support networks, and contributing to the overall well-being of individuals and communities affected by substance use disorders.

We commend Miss Safia Ashfaq for her successful completion of the Community Reinforcement Approach (CRA) Training Program and wish her continued success in her efforts to make a positive impact in the field of substance abuse treatment.

---

Sahrish Ruba  
 HOD Psychology Department  
 H&H Health Care  
 +923150500158  
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 Plot 16, Block E, Street Shalimar Road,  
 Soan Gardens, Islamabad, 44000.

CRA FUNCTIONAL ANALYSIS FOR DRINKING BEHAVIOR (INITIAL ASSESSMENT)

External Triggers	Internal Triggers	Drinking Behavior	Short-Term Positive Consequences	Long-Term Negative Consequences
<p>Who are you usually with when you drink?</p>	<p>1. What are you usually thinking about right before you drink?</p>	<p>1. What do you usually drink?</p>	<p>1. What do you like about drinking with _____? (who)</p>	<p>1. What are the negative results of your drinking in each of these areas:</p>
<p>Where do you usually drink?</p>	<p>2. What are you usually feeling physically right before you drink?</p>	<p>2. How much do you usually drink?</p>	<p>2. What do you like about drinking _____? (where)</p>	<p>a) Interpersonal:</p>
<p>When do you usually drink?</p>	<p>3. What are you usually feeling emotionally right before you drink?</p>	<p>3. Over how long a period of time do you usually drink?</p>	<p>3. What do you like about drinking _____? (when)</p>	<p>b) Physical:</p>
			<p>4. What are some of the pleasant thoughts you have while you are drinking?</p>	<p>c) Emotional:</p>
			<p>5. What are some of the pleasant physical feelings you have while you are drinking?</p>	<p>d) Legal:</p>
			<p>6. What are some of the pleasant emotional feelings you have while you are drinking?</p>	<p>e) Job:</p>
				<p>f) Financial:</p>
				<p>g) Other:</p>

# FUNCTIONAL ANALYSIS FOR USING BEHAVIORS

External Triggers	Internal Triggers	Using Behavior	Short-Term - Good things (rewards)	Long-Term - Not so good things
<ol style="list-style-type: none"> <li>1. <u>Who</u> are you usually with when you use?</li> </ol>	<ol style="list-style-type: none"> <li>1. What are you usually <u>thinking</u> about right before you use?</li> </ol>	<ol style="list-style-type: none"> <li>1. <u>What</u> do you usually use?</li> </ol>	<ol style="list-style-type: none"> <li>1. What do you like about using with (who)?</li> </ol>	<ol style="list-style-type: none"> <li>1. What are the negative results of your using in each of these areas:</li> </ol>
<ol style="list-style-type: none"> <li>2. <u>Where</u> do you usually use?</li> </ol>	<ol style="list-style-type: none"> <li>2. What are you usually <u>feeling</u> physically right before you use?</li> </ol>	<ol style="list-style-type: none"> <li>2. <u>How much</u> do you usually use?</li> </ol>	<ol style="list-style-type: none"> <li>2. What do you like about using (where)?</li> </ol>	<ol style="list-style-type: none"> <li>a) Interpersonal:</li> </ol>
<ol style="list-style-type: none"> <li>3. <u>When</u> do you usually use?</li> </ol>	<ol style="list-style-type: none"> <li>3. What are you usually <u>feeling</u> emotionally right before you use?</li> </ol>	<ol style="list-style-type: none"> <li>3. Over <u>how long</u> a period of time do you usually use?</li> </ol>	<ol style="list-style-type: none"> <li>3. What do you like about using (when)?</li> </ol>	<ol style="list-style-type: none"> <li>c) Emotional:</li> </ol>
			<ol style="list-style-type: none"> <li>4. What are the pleasant <u>thoughts</u> you have while using?</li> </ol>	<ol style="list-style-type: none"> <li>d) Legal:</li> </ol>
			<ol style="list-style-type: none"> <li>5. What are the pleasant <u>physical feelings</u> you have while using?</li> </ol>	<ol style="list-style-type: none"> <li>e) Job:</li> </ol>
			<ol style="list-style-type: none"> <li>6. What are the pleasant <u>emotions</u> you have while using?</li> </ol>	<ol style="list-style-type: none"> <li>f) Financial:</li> </ol>
				<ol style="list-style-type: none"> <li>g) Other:</li> </ol>

# CRA FUNCTIONAL ANALYSIS FOR PRO - SOCIAL BEHAVIOR ( )

(activity)

External Triggers	Internal Triggers	Pro - Social Behavior	Short term. Not so good things, barriers	Long-Term Good things (rewards)
1. Who are you usually with when you (activity)?	1. What are you usually thinking about right before you (activity)?	1. What is the non-drinking activity?	1. What do you dislike about (activity) with (who)?  2. What do you dislike about (activity) (where)?	1. What are the positive results of (activity) in each of these areas:  a) Interpersonal:  b) Physical:  c) Emotional:  d) Legal:  g) Other:
2. Where do you usually (activity)?	2. What are you usually feeling physically right before you (activity)?	2. How often do you engage in it?	3. What do you dislike about (activity) (when)?	
3. When do you usually (activity)?	3. What are you usually feeling emotionally right before you (activity)?	3. How long does it usually last?	4. What are the unpleasant thoughts you have while (activity)?  5. What are the unpleasant physical feelings you have while (activity)?  6. What are the unpleasant emotions you have while (activity)?	

## HAPPINESS SCALE

This scale is intended to estimate your *current* happiness with your life in each of the ten areas listed below. Ask yourself the following question as you rate each area:

**How happy am I with this area of my life?**

You are to circle one of the numbers (1-10) beside each area.

Numbers toward the left indicate various degrees of unhappiness, while numbers toward the right reflect various levels of happiness.

In other words, state according to the numerical scale (1-10) exactly how you feel today.

**Remember:** Try to exclude all feelings of yesterday and concentrate only on the feelings of today in each of the life areas. Also try not to allow one category to influence the results of the other categories.

	Completely Unhappy					Completely Happy				
	1	2	3	4	5	6	7	8	9	10
Drinking	1	2	3	4	5	6	7	8	9	10
Job or Education Progress	1	2	3	4	5	6	7	8	9	10
Money Management	1	2	3	4	5	6	7	8	9	10
Social Life	1	2	3	4	5	6	7	8	9	10
Personal Habits	1	2	3	4	5	6	7	8	9	10
Marriage/Family Relationships	1	2	3	4	5	6	7	8	9	10
Legal Issues	1	2	3	4	5	6	7	8	9	10
Emotional Life	1	2	3	4	5	6	7	8	9	10
Communication	1	2	3	4	5	6	7	8	9	10
General Happiness	1	2	3	4	5	6	7	8	9	10
_____	1	2	3	4	5	6	7	8	9	10

Name: \_\_\_\_\_

Date: \_\_\_\_\_

(Meyers & Smith, 2003)



# GOALS OF COUNSELING

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Problem Areas/Goals	Intervention	Time Frame
1. In the area of drinking/sobriety I would like: _____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
2. In the area of job/educational progress I would like: _____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
3. In the area of money management I would like: _____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____

# GOALS OF COUNSELING

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Problem Areas/Goals	Intervention	Time Frame
4.) In the area of social life I would like:		
5.) In the area of personal habits I would like:		
6.) In the area of marriage/family relationships I would like:		

# GOALS OF COUNSELING

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Problem Areas/Goals	Intervention	Time Frame
7.) In the area of legal issues I would like:		
8.) In the area of emotional life I would like:		
9.) In the area of communication I would like:		
10.) In the area of happiness I would like:		

## RELATIONSHIP HAPPINESS SCALE

This scale is intended to estimate your current happiness with your relationship in each of the ten areas listed below. Ask yourself the following question as you rate each area:

*How happy am I today with my partner in this area?*

Then circle the number that applies.

Numbers toward the left indicate various degrees of unhappiness, while numbers toward the right reflect various levels of happiness.

In other words, by using the proper number you will be indicating just how happy you are with that particular relationship area.

**Remember:** You are indicating your current happiness, that is, how you feel today. Also, try not to let your feelings in one area influence the ratings in another area.

	Completely Unhappy					Completely Happy				
Household Responsibilities	1	2	3	4	5	6	7	8	9	10
Raising the Children	1	2	3	4	5	6	7	8	9	10
Social Activities	1	2	3	4	5	6	7	8	9	10
Money Management	1	2	3	4	5	6	7	8	9	10
Communication	1	2	3	4	5	6	7	8	9	10
Sex & Affection	1	2	3	4	5	6	7	8	9	10
Job or School	1	2	3	4	5	6	7	8	9	10
Emotional Support	1	2	3	4	5	6	7	8	9	10
Partner's Independence	1	2	3	4	5	6	7	8	9	10
General Happiness	1	2	3	4	5	6	7	8	9	10

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## PERFECT RELATIONSHIP

Under each area listed below, write down what activities would occur in what would be for you an ideal relationship. Be brief, be positive and state in a specific and measurable way what you would like to occur.

1. In Household Responsibilities, I would like my partner to:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

2. In Childrearing I would like my partner to:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

3. In Social Activities I would like my partner to:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

# SELF-REMINDER TO BE NICE

Name: \_\_\_\_\_

Date:		
Did you express appreciation to your partner today?		
Did you compliment your partner today?		
Did you give your partner any pleasant surprises today?		
Did you express visible affection to your partner today?		
Did you spend some time devoting your complete attention to pleasant conversation with your partner?		
Did you initiate a pleasant conversation today?		
Did you make any offer to help before being asked?		

## HAPPINESS SCALE

سوال نامہ آپ کے موجودہ خوشگوار ازدواجی تعلقات کا جائزہ لینے کیلئے تشکیل دیا گیا ہے۔ اس سے متعلق دس فقرے نیچے دیئے گئے ہیں۔ اپنے آپ سے درج ذیل سوال پوچھیں، آج کے دن اس حصے میں اپنے ساتھی سے کتنا خوش ہوں؟ مناسب نمبر کے گرد دائرہ لگائیں۔ یاد رکھیں آپ اپنی موجودہ خوشی کی نشاندہی کر رہے ہیں۔ مطلب یہ کہ آج آپ کیسا محسوس کر رہے ہیں۔ ایک ایریا / شعبہ کے بارے میں اپنے جذبات کو کسی دوسرے ایریا / شعبہ کے درجہ بندی کرنے کا اندازہ نہ ہونے دیں۔

نمبر شمار	فقرے	(۱)	(۲)	(۳)	(۴)	(۵)	(۶) مکمل ناخوش
۱	گھریلو ذمہ داریاں						
۲	بچوں کی پرورش						
۳	سماجی سرگرمیاں						
۴	روپیہ / پیسہ						
۵	آپس میں بات چیت						
۶	جنس اور لگاؤ						
۷	تعلیمی یا پیشہ ورانہ ترقی						
۸	ذاتی آزادی						
۹	جیون ساتھی کی آزادی						
۱۰	عمومی خوشی						

## SOCIAL CONTEXT SCALE

ہدایات: مندرجہ ذیل چوبیس سوالات / جملے چرس کے استعمال کی مختلف وجوہات اور حالات کے بارے میں ہیں۔ ہر جملے کو احتیاط سے پڑھیں اور سوال کے مطابق جواب دیں۔ برائے مہربانی ہر سوال کا جواب یقینی انداز میں دیں۔  
آپ کس حد تک چرس کا استعمال کرتے ہیں۔

نمبر شمار	سماجی سہولیات / مواقع	بکثرت	کبھی کبھار	بہت کم	کبھی نہیں
۱	دوستوں کے چھوٹے گروہ کے ساتھ				
۲	اچھا وقت گزارنے کیلئے				
۳	کالج کے کیمپس میں (مثلاً دعوتوں پر، ہاسٹل میں جماعتوں میں برادریوں میں، یا کسی تنظیم جماعت کے ساتھ)				
۴	ہفتے کے اختتام کی راتوں پر				
۵	جب آپ کی اگلی صبح کوئی کلاس یا ذمہ داری نہ ہو؟				
۶	دوست کے ساتھ پارٹی میں؟				
۷	گاڑی چلاتے ہوئے ادھر ادھر گھومتے ہوئے				
۸	ہفتے کے دوران کی راتیں				
۹	جب ہفتوار چھٹیوں کی راتوں میں گھر سے کوئی دوست ملنے آیا ہو؟				
۱۰	پارک ہوئی گاڑی میں				
۱۱	دوستوں کے ایک بڑے گروہ کے ساتھ				
۱۲	باہر جانے سے پہلے (مثلاً پارٹی یا شراب خانے میں جانا)				
۱۳	گاڑی چلاتے یا سفر کرتے ہوئے کسی اور رات گزارنے کی جگہ پر ساتھیوں کی رضامندی				
۱۴	کیونکہ یہ سکون بخش / ٹھنڈی / فرحت بخش ہے				
۱۵	کسی گروہ کا حصہ بننے کیلئے (منوانے کیلئے، گھلنے ملنے کیلئے یا الگ تھلگ محسوس نہ کرنے کیلئے)				
۱۶	کسی کی منظوری حاصل کرنے کیلئے (ایک قریبی دوست، بوائے فرینڈ یا گرل فرینڈ)				

نمبر شمار	سماجی سہولیات / مواقع	بکثرت	کبھی کبھار	بہت کم	کبھی نہیں
۱۷	اپنا تاثر برقرار رکھنے کیلئے				
۱۸	اپنے آپ کو بڑا ظاہر کرنے کیلئے / بالغ یا جوان محسوس کرتے ہوئے جذبائی درد / تکلیف				
۱۹	ڈپریشن سے چھٹکارا حاصل کرنے کیلئے				
۲۰	ذاتی مسائل کو بھولنے کیلئے				
۲۱	تعلیمی مسائل کو بھولنے کیلئے جنسی تسکین				
۲۲	برے خیالات کو رد کرنے کیلئے				
۲۳	کسی کے ساتھ ہمبستری میں آسانی حاصل کرنے کیلئے				
۲۴	مخالف جنس کے کسی بھی فرد سے بات چیت کرنے کی جرات / اہمیت پیدا کرنے کیلئے				

## ڈی اے ایس ایس (سکیل)

نام: .....

نام: .....

ہدایات: درج ذیل باتوں پر نقرے کا مطالعہ کریں اور ایک 0، 1، 2 یا 3 پر درجہ لگائیں جو یہ ظاہر کرے کہ کتنا وقت لگتا ہے بیان آپ پر کس حد تک لاگو ہو گا کوئی غلط یا درست جوابات نہیں ہیں۔ کسی بھی بیان پر بہت زیادہ وقت صرف مت کریں۔ کسی بھی جواب کی شدت کے معیار کو جانچنے کا یہ اندازہ دینا ہے۔

0 = مجھ پر بالکل بھی لاگو نہیں ہوتا

1 = مجھ پر کسی حد تک یا کچھ وقت کے لیے لاگو ہوتا ہے

2 = مجھ پر کافی حد تک یا کافی وقت کے لیے لاگو ہوتا ہے

3 = مجھ پر بہت حد تک یا زیادہ وقت کے لیے لاگو ہوتا ہے

نمبر شمار	نقرے	مجھ پر بالکل بھی لاگو نہیں ہوتا	مجھ پر کسی حد تک یا کچھ وقت کے لیے لاگو ہوتا ہے	مجھ پر کافی حد تک، یا کافی وقت کے لیے لاگو ہوتا ہے	مجھ پر بہت حد تک یا زیادہ وقت کے لیے لاگو ہوتا ہے
1	میں نے اپنے آپ کو ہماری باتوں کی وجہ سے پریشان پایا	0	1	2	3
2	میں اپنا سر دکھانے کے بارے میں بات کرتا تھا	0	1	2	3
3	میں کسی بھی قسم کے شہرت احساس نہیں رکھتا تھا	0	1	2	3
4	مجھے مائیں لینے میں شہرتی کا سامنا ہوا (مثلاً مائیں کا زیادہ سے زیادہ سامنا شہرت کی غیر معمولی میں مائیں لینے میں ہوتا تھا)	0	1	2	3
5	میں خود کو کام کرنے کے لیے متوجہ نہ پایا تھا	0	1	2	3

3	2	1	0	یہ برعکس صورت حال کی مناسبت سے شدید ہے	6
3	2	1	0	مجھے لڑنے کے ارادے کا احساس ہوا (مثلاً) لڑنے کا ہوا ہے یا	7
3	2	1	0	مجھے یہ ملنے رہنا مشکل محسوس ہوا	8
3	2	1	0	میں نے خود کو ایسے صور حال میں پایا کہ میں نے مجھے بہت پریشان کر دیا میں نے ان کے کٹر ہونے پر بہت ہتھی محسوس کیا	9
3	2	1	0	مجھے محسوس ہوا کہ یہ پاس آکر کھڑے کے لیے ہتھی نہیں ہے	10
3	2	1	0	میں نے محسوس کیا کہ میں جلدی پریشان ہو جاتا ہوں	11
3	2	1	0	میں نے محسوس کیا کہ میں بہت زیادہ مصائب تو دانی استعمال کرتا ہوں	12
3	2	1	0	میں نے خود کو تنہا محسوس کیا مجموعی طور پر	13
3	2	1	0	جب ہی مجھے کسی معاملے میں پریشانی میں نے خود کو پتہ چلے محسوس کیا (مثلاً) اللہ میں زیادہ اس کی بہت زیادہ انتظار کرنے پر	14
3	2	1	0	مجھے یہ ہتھی کا احساس ہوا	15
3	2	1	0	مجھے احساس ہوا کہ میں نے مزید میں ہتھی کھوئی ہے	16
3	2	1	0	مجھے احساس ہوا کہ کیفیت اس کی بہت ہی لمبی دیرت نہیں	17

3	2	1	0	مجھے احساس ہو کہ میں ذرا احساس غیوریت کا مالک ہوں	18
3	2	1	0	زیادہ درجہ حرارت یا جسمانی مشقت کے بغیر بھی مجھے واضح صبح پینینہ آیا (مثلاً آنسوؤں میں پینینہ آنا)	19
3	2	1	0	میں نے بغیر کسی سناٹے کے خوف محسوس کیا	20
3	2	1	0	مجھے احساس ہو کہ اندنی بیڑی بے وقعت ہے	21
3	2	1	0	مجھے کام ختم کرنا مشکل محسوس ہوا	22
3	2	1	0	مجھے نشتے میں دشواری کا سامنا ہوا	23
3	2	1	0	مجھے اپنے گھونٹے والے کاموں سے دل لگنا احساس نہیں ہوا	24
3	2	1	0	کسی بھی جسمانی مشقت کی بغیر موڑ دینی میں میں اپنے دل کی حرکت سے آگاہ ہاؤں تھا (مثلاً دل کی دھڑکن پر غصے کا احساس، دل کی دھڑکن میں بے تاملی)	25
3	2	1	0	میں نے بے دلی، مایوسی محسوس کی	26
3	2	1	0	مجھے احساس ہو کہ میں بہت چال چال ہوں	27
3	2	1	0	مجھے احساس ہو کہ میری پریشانی حد سے زیادہ گہری ہے	28
3	2	1	0	جب بھی کسی بات نے مجھے پریشان کیا، اس کے بعد مجھے پریشان ہونے میں دشواری کا سامنا کرنا پڑا	29
3	2	1	0	مجھے اس بات کا محسوس ہو کہ میں کسی معمولی چیز پر مایوسی کا مقام تک پہنچا ہوں	30

3	2	1	0	میں کسی بھی چیز کے بارے میں پرہیز کرنے کے قابل نہیں تھا	31
3	2	1	0	میں نے اپنے کام کے دوران برداشت کو برداشت کرنے میں مشعل مسوول کی	32
3	2	1	0	میں ہنسنا یا تانا کی عادت میں تھا	33
3	2	1	0	میں نے مسوول یا میں کافی تیرا ہم تھا	34
3	2	1	0	میں نے ایسی کسی بھی بات کو برداشت نہیں کیا جو میرے کام کو جاری رکھنے میں برداشت کرتا تھا	35
3	2	1	0	میں نے خود کو نوڈل، مسوول کیا	36
3	2	1	0	مجھے مستقبل میں کوئی چیز ایسی نظر نہیں آتی جس کے متعلق میں پرہیز کرنا چاہتا ہوں	37
3	2	1	0	مجھے مسوول ہونا ایک زندگی بے معنی ہے	38
3	2	1	0	میں نے خود کو بے چین ہونے سے مسوول کیا	39
3	2	1	0	میں ان صورتحال کے بارے میں پریشان تھا جن سے میں خود کو ہٹا جاتا اور خود کو بے وقوف بناتا	40
3	2	1	0	میں نے کولپا ہت مسوول کی (مخاطباتوں میں)	41
3	2	1	0	میں نے کسی بھی کام کے پیمانے کرنے میں مشعل مسوول کی	42

اکثر شادی شدہ خواتین و حضرات کے باہمی تعلقات میں بعض اختلافات دیکھنے میں آتا ہے۔ آپ نے یہ بتانا ہے کہ مندرجہ ذیل معاملات میں آپ اور آپ کی ا کے شریک حیات کے درمیان کس حد تک اتفاق پایا جاتا ہے۔

نمبر شمار	بیانات	ہمیشہ متفق	تقریباً ہمیشہ متفق	اکثر غیر متفق	تقریباً ہمیشہ غیر متفق	کبھی کبھار غیر متفق	ہمیشہ غیر متفق
1.	گھریلو اخراجات کرنے میں						
2.	تفریحی معاملات						
3.	مذہبی معاملات						
4.	شفقت / محبت کا اظہار						
5.	دوست احباب						
6.	جنسی تعلقات						
7.	روایت پسندی (رسم و رواج کے مطابق درست یا صحیح رویہ)						
8.	فلسفہ حیات (زندگی گزارنے کا طریقہ)						
9.	والدین سے برتاؤ						
9.	الف سسرال والوں سے برتاؤ						
10.	عزائم، مقاصد اور اہم معاملات						
11.	اکٹھے وقت گزارنا						
12.	اہم فیصلے کرنا						
13.	گھریلو کام کاج						
14.	فارغ اوقات کے مشاغل						
15.	روزگار اور پیشے کے بارے میں فیصلے						

آپ اور آپ کی ا کے شریک حیات کے درمیان یہ واقعات کتنی مرتبہ ہوتے ہیں

نمبر شمار	بیانات	کبھی نہیں	مہینے میں ایک دفعہ سے بھی کم	مہینے میں ایک یا دو دفعہ	ہفتے میں اور	دن میں	اکثر
.24	گرم جوشی سے تبادلہ خیال کرنا				یا دو دفعہ	ایک دفعہ	
.25	اکٹھے ہنسنا/قبولہ لگانا						
.26	کسی معاملے پر اطمینان سے بحث کرنا						
.27	کسی منصوبے پر اکٹھے کام کرنا						

بعض امور میں شادی شدہ جوڑوں میں اتفاق دیکھنے میں آتا ہے۔ آپ کو یہ بتانا ہے کہ پچھلے کچھ ہفتوں میں ان میں سے کون سے امور آپ کے لئے اختلاف رائے یا کشیدگی کا باعث بنے۔ (ہاں یا نہیں میں جواب دیں)

.28 تھکن کی وجہ سے جنسی تعلقات سے انکار

\_\_\_\_\_

.29 پیار کا اظہار نہ کرنا

\_\_\_\_\_

.30 آپ کے تعلقات میں آپ کتنے خوش یا ناخوش ہیں صرف ایک نقطہ پر نشان لگائیے۔

انتہائی خوش بہت زیادہ خوش بہت خوش خوش تھوڑا ناخوش بہت زیادہ ناخوش انتہائی خوش

ہم جو جانا چاہتے ہیں کتاب نے اپنے گزشتہ دو دفعے کیسے گزرا ہے؟ ہم چاہتے ہیں کتاب اپنے کام اپنے قابل وقت اور اپنی گہرائی کو روکنے کے بارے میں کچھ سوالوں کے جواب دیں۔ ان سوالوں کے کوئی صحیح یا غلط جواب نہیں ہیں۔ ہمارے سوالیے اسے شروع کرنے سے پہلے جہاں تاہم پر مدد سے مطرعات کو پڑھ کر لیں۔ جہاں تاہم پر جواب ہو کر لیا کر دیا کریں۔

A- کام (معاوضے کے لئے)

کیا آپ ایک دفعے میں گزراؤ کے لئے چند کتبے یا اس سے زیادہ کام کرتے ہیں؟ اگر ہاں تو عدالت سوال نمبر 1 کا جواب دیں۔ اگر نہیں تو ص (ب) پر پلے جائیں۔ گزراؤ کام کا ج (تعمیر گزراؤ کے ساتھ معاوضے کے)۔

1- گزشتہ دو ہفتوں کے دوران آپ کتنے دن کام سے غیر حاضر ہوئے؟

1- میں کسی بھی دن غیر حاضر نہیں ہوا۔

2- میں ایک دن غیر حاضر ہوا۔

3- میں تقریباً ایک ہفتہ حاضر ہوا۔

4- میں آدھے سے زیادہ وقت غیر حاضر ہوا، لیکن میں نے کم از کم ایک دن کام کیا۔

5- میں نے کسی بھی دن کام نہیں کیا۔

6- میں نے پیشینہ کی وجہ سے کسی بھی دن کام نہیں کیا۔

کیا آپ نے گزشتہ دو ہفتوں میں کسی دن کام کیا؟ اگر ہاں تو عدالت سوال نمبر 2 کا سوال نمبر 6 تک کے سوالوں کا جواب دیں۔ اگر نہیں تو ص (ب) پر پلے جائیں۔ گزراؤ کام کا ج (تعمیر گزراؤ کے ساتھ معاوضے کے)۔

2- گزشتہ دو ہفتوں کے دوران آپ اپنے کام کو کتنا اچھی طرح کرنے میں کامیاب رہے؟

1- میں نے اپنا کام بہت اچھی طرح کیا۔

2- میں نے اپنا کام اچھی طرح کیا، لیکن چند ایک معمولی سی مشکلات کا سامنا کرنا پڑا۔

3- مجھے کام کے سلسلے میں مدد کی ضرورت پیش آئی اور تقریباً ایک ہفتہ اچھے طریقے سے کام نہیں کر سکا۔

4- میں نے زیادہ تر وقت اپنا کام نہ کیا۔

5- میں نے سارا وقت اپنا کام نہ کیا۔

3- گزشتہ دو ہفتوں کے دوران آپ نے اپنا کام کرنے کے طریقے کی وجہ سے کتنی مرتبہ شرمندگی محسوس کی؟

1- میں نے کبھی شرمندگی محسوس نہیں کی۔

2- ایک یا دو مرتبہ میں نے تھوڑی سی شرمندگی محسوس کی۔

3- تقریباً ایک ہفتہ میں نے شرمندگی محسوس کی۔

4- میں نے زیادہ تر وقت شرمندگی محسوس کی۔

5- میں نے تمام وقت شرمندگی محسوس کی۔

گرفتار شدہ مہنتوں کے دوران آپ سارا وقت گھر سے باہر رہیں؟ اگر ہاں تو حصہ "C" پُر پلے جائیں (طالب علم) اگر نہیں تو عملے سرکاری سال  
نمبر 8 سے سوال نمبر 12 تک کے سوالوں کا جواب دیں۔

8- گرفتار شدہ مہنتوں کے دوران آپ نے اپنے گھر کا کام کئی اچھی طرح کیا؟

- 1- میں نے اپنا کام بہت اچھی طرح کیا۔
- 2- میں نے اپنا کام بہت اچھی طرح کیا، لیکن کہہ چکا ہوں کہ چند معمولی مشکلات کا سامنا کرنا پڑا۔
- 3- مجھے کام کے سلسلے میں مدد کی ضرورت پیش آئی اور میں ایک ہفتہ کے لیے گھر سے کام نہیں کر سکا۔
- 4- زیادہ تر وقت میں نے اپنا کام نہ کیا۔
- 5- میں نے سارا وقت اپنا کام نہ کیا۔

9- گرفتار شدہ مہنتوں کے دوران آپ نے اپنے گھر کا کام کرنے کے لیے کئی چیزیں خریدیں؟

- 1- میں نے کئی چیزیں خریدیں۔
- 2- ایک یا دو چیزیں خریدیں۔
- 3- تقریباً ایک ہفتہ میں نے خریدیں۔
- 4- میں نے زیادہ تر وقت خریدیں۔
- 5- میں نے تمام وقت خریدیں۔

10- گرفتار شدہ مہنتوں کے دوران کیا آپ نے (جس میں بیچے والوں، خیریت کرنے والوں اور معاشیوں) کے ساتھ کوئی بحث کی؟

- 1- میں نے کوئی بحث نہیں کی اور سب کچھ بہت اچھا رہا۔
- 2- عموماً میں بہتر رہا ہوں، لیکن تھوڑی بہت بحث ہوئی۔
- 3- میں نے ایک سے زیادہ مرتبہ بحث کی۔
- 4- میں نے کافی مرتبہ بحث کی۔
- 5- میں مسلسل بحث کرتا رہا ہوں۔

11- گرفتار شدہ مہنتوں کے دوران آپ نے اپنے گھر کا کام کرتے ہوئے کئی مرتبہ پریشانی محسوس کی؟

- 1- میں کبھی پریشانی کا شکار نہیں ہوا ہوں۔
- 2- ایک یا دو مرتبہ میں نے پریشانی محسوس کی۔
- 3- ایک ہفتہ میں پریشانی کا شکار رہا ہوں۔
- 4- زیادہ تر وقت میں پریشانی کا شکار رہا ہوں۔
- 5- میں تمام وقت پریشانی کا شکار رہا ہوں۔



32- گزشتہ دو ہفتوں کے دوران کیا آپ نے اپنے رشتے داروں کے ساتھ ملاقات کو نظر انداز کیا؟

- 1- میں نے ہر روز اپنے رشتے داروں کے ساتھ ملاقات کی۔
- 2- میں نے کم از کم ایک مرتبہ ایک رشتے دار کے ساتھ ملاقات کی۔
- 3- میں نے اس بات کا اظہار کیا کہ سرحد سے رشتے داروں سے ملاقات کریں۔
- 4- میں نے اپنے رشتے داروں کو نظر انداز کیا لیکن انہوں نے مجھ سے ملاقات کی۔
- 5- میرا بچہ کسی رشتے دار سے کوئی ملاقات نہ ہوئی۔

33- گزشتہ دو ہفتوں کے دوران کیا آپ نے روزانہ صحت، پیچھلے وقت کے سلسلے میں اپنے رشتے داروں پر اظہار کیا؟

- 1- مجھے کبھی بھی ان پر اظہار کرنے کی ضرورت نہیں تھی۔
- 2- مجھے ان پر اظہار کرنے کی ضرورت نہیں تھی۔
- 3- تقریباً ایک ہفتہ، مجھے ان پر اظہار کرنے کی ضرورت نہیں آئی۔
- 4- زیادہ تر وقت میں نے ان پر اظہار کیا۔
- 5- میں نے مسلسل طور پر ان پر اظہار کیا۔

34- گزشتہ دو ہفتوں کے دوران آپ نے اپنے رشتے داروں کو براہ راست کہنے کی کوشش کی، جو منہ پانچے تھے؟

- 1- میں نے کبھی ان کی مخالفت نہ کی۔
- 2- ایک مرتبہ، میں نے ان کی مخالفت کی۔
- 3- تقریباً ایک ہفتہ، میں نے ان کی مخالفت کی۔
- 4- زیادہ تر وقت میں نے ان کی مخالفت کی۔
- 5- میں نے ہمیشہ ان کی مخالفت کی۔

35- گزشتہ دو ہفتوں کے دوران آپ کتنی مرتبہ ان واقعات کے لئے گرمندہ ہوئے جن آپ کے رشتے داروں کو بغیر کسی وجہ کے پیش آ رہے تھے؟

- 1- بغیر وجہ کے گرمندہ ہوا۔
- 2- ایک یا دو مرتبہ میں گرمندہ ہوا۔
- 3- تقریباً ایک ہفتہ، میں گرمندہ رہا۔
- 4- زیادہ تر وقت میں گرمندہ رہا۔
- 5- میں سارا وقت گرمندہ رہا۔

40- گزشتہ امتوں کے دوران آپ نے کئی دلساپے گھر میں ایلی مرضی چلائی؟

- 1- میں نے کبھی ایلی مرضی چلانے پر سزا نہیں کیا۔
- 2- میں نے عموماً ایلی مرضی چلانے پر سزا نہیں کیا۔
- 3- تقریباً ایک ہفتہ میں نے ایلی مرضی چلانے پر سزا کیا۔
- 4- میں نے عموماً ایلی مرضی چلائی۔
- 5- میں نے ایسا ایلی مرضی چلائی۔

41- گزشتہ امتوں کے دوران کئی مرتباً آپ کے شریک زندگی نے آپ پر ظم کیا؟

- 1- کبھی نہیں۔
- 2- صرف ایک دفعہ۔
- 3- تقریباً آدھارت۔
- 4- تقریباً ہر وقت۔
- 5- ہمیشہ۔

42- گزشتہ امتوں میں آپ نے اپنے شریک زندگی کو شریک کار پر کتنا اھزار کیا؟

- 1- میں آزاد خود کار رہا تھا۔
- 2- میں عموماً آزاد خود کار رہا۔
- 3- میں نے کبھی کبھی اھزار کیا۔
- 4- میں عموماً اس پر اھزار کرتا کرتی رہی۔
- 5- میں نے ہر چیز کے لئے اپنے شریک زندگی کو شریک کار پر منحصر رہا اھزار کیا۔

43- گزشتہ امتوں میں آپ نے اپنے شریک زندگی کے لئے کیا محسوس کیا؟

- 1- میں نے ہمیشہ محبت کے جذبات محسوس کیے۔
- 2- میں نے عموماً محبت کے جذبات محسوس کیے۔
- 3- تقریباً ایک ہفتہ میں نے ناپسندیدگی اور آدھارت محبت کے جذبات محسوس کیے۔
- 4- میں نے عام طور پر ناپسندیدگی محسوس کی۔
- 5- میں نے ہمیشہ ناپسندیدگی محسوس کی۔

G- والدین  
 کیا گزشتہ دو ہفتوں کے دوران آپ اپنے کمر میں اپنے گیمز کی تعداد بڑھانے پر توجہ دیا ہے؟ اگر ہاں تو سوال نمبر 47 سوال نمبر 50 تک کے سوالوں کا جواب دیں۔ اگر نہیں تو حصہ "H" پر چلے جائیں۔ (نام لکھیں)

47- گزشتہ دو ہفتوں کے دوران آپ نے اپنے بچوں کے کلاسوں (اسکول، کھیل اور ان کے مشغلوں) میں کتنی دلچسپی لی؟

- 1- میں نے ہمیشہ دلچسپی لی اور ہر پور طریقے سے شمولیت کی۔
- 2- میں نے عموماً دلچسپی لی اور ہر پور طریقے سے شمولیت کی۔
- 3- میں نے تقریباً ایک ہفتہ دلچسپی لی اور ایک ہفتہ نہیں لی۔
- 4- میں نے عموماً دلچسپی نہیں لی۔
- 5- میں نے کبھی بھی دلچسپی نہیں لی۔

48- گزشتہ دو ہفتوں کے دوران کیا آپ نے اپنے بچوں کے ساتھ بات کی اور ان کی بات سنی؟ (صرف دو سال سے زائد عمر کے بچوں کو شامل کریں)

- 1- میں نے ان سے ہمیشہ بات چیت کی۔
- 2- میں عموماً ان سے بات چیت کرتا رہا۔
- 3- تقریباً ایک ہفتہ میں ان سے بات کی۔
- 4- میں عموماً ان سے بات چیت نہیں کرتا رہا۔
- 5- میں بالکل ان سے بات چیت نہ کرتا رہا۔
- 6- اطلاع نہیں ہوتا۔ دو سال سے زیادہ کوئی بچہ نہیں۔

49- گزشتہ دو ہفتوں کے دوران آپ اپنے بچوں کے ساتھ کیسے رہے؟

- 1- میں نے کوئی بحث نہیں کی اور سب کچھ بہت اچھا رہا۔
- 2- عام طور پر میں بہتر رہا لیکن معمولی سی بحث ہوئی۔
- 3- میں نے ایک سے زیادہ دفعہ جھگڑا کیا۔
- 4- میں نے کئی مرتبہ بحث کی۔
- 5- میں نے مسلسل بحث کی۔

50- گزشتہ دو ہفتوں میں آپ نے اپنے بچوں کے لئے کیسا محسوس کیا؟

- 1- میں نے ہمیشہ ان کے لئے محبت محسوس کی۔
- 2- میں نے عموماً ان کے لئے محبت محسوس کی۔
- 3- تقریباً ایک ہفتہ میں نے ان کے لئے محبت محسوس کی۔
- 4- زیادہ تر وقت میں نے محبت محسوس نہ کی۔
- 5- میں نے کبھی بھی ان کے لئے محبت محسوس نہیں کی۔

برائے مہربانی ہر ایک سوال نمبر 54 کا جواب دیں۔

54- گزشتہ دو ہفتوں کے دوران کیا آپ مجھے پاس اپنی اور اپنے خاندان کی مالی ضروریات کو پورا کرنے کے لئے پیسہ رہا تھا؟

- 1- میرے پاس ضروریات کے مطابق پیسہ تھا۔
- 2- میرے پاس عموماً ضرورت کے مطابق پیسہ رہا اور جوہ کو مشکلات کے۔
- 3- تقریباً ایک ہفتہ میرے پاس ضرورت کے مطابق پیسہ نہیں رہا، لیکن مجھے اُدھار نہیں لینا پڑا۔
- 4- میرے پاس عموماً ضرورت کے مطابق پیسہ نہیں رہا اور مجھے دوسروں سے اُدھار لینا پڑا۔
- 5- میں سخت مالی مشکلات کا شکار تھا۔

آپ کے تعاون کا شکریہ!

