

**ASSOCIATION BETWEEN CHILDHOOD TRAUMATIC
EXPERIENCES AND VULNERABILITY TO SUBSTANCE
ABUSE AMONG UNIVERSITY STUDENTS: ROLE OF
EMOTIONAL DYSREGULATION AND FUTURE
ORIENTATION**

BY

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NATIONAL UNIVERSITY OF MODERN LANGUAGES

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STUDENTS: ROLE OF EMOTIONAL DYSREGULATION AND FUTURE
ORIENTATION**

By

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Abstract

The aim of the current research is to investigate the relationships among childhood traumatic experiences and vulnerability to substance abuse with a focus on examining the mediating role of emotional dysregulation and role of future orientation as moderator among university students. There were 400 students in the sample with age between 18 and 25 who were enrolled in various universities in Rawalpindi and Islamabad. To measure the study variables, Adverse Childhood Experiences International Questionnaire- adapted version (ACE-IQ; WHO, 2018), Substance Use Risk Profile Scale (SURPS, Woicik et al., 2009), Emotional Dysregulation Scale- short form (EDS-S; Powers et al., 2015) and Future Orientation Scale (FOS; Steinberg et al., 2009) were used. The findings indicate a significant relationship between the variables under investigation. Emotional dysregulation turned out to be a significant mediating factor whereas future orientation emerged as the moderator among university students. Findings are consistent with earlier researches and limitations and possible future directions are outlined in the conclusion. This study is of considerable value for professionals, therapists and decision makers. The findings contribute to the growing body of literature on childhood trauma and substance abuse, offering a framework for developing effective prevention and intervention strategies tailored to university students.

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List of Abbreviations

ACE	Adverse Childhood Experiences
ACE-IQ	Adverse Childhood Experiences International Questionnaire
CI	Confidence Interval
ED	Emotional Dysregulation
EDS-SF	Emotional Dysregulation Scale- Short Form
FOS	Future Orientation Scale
SES	Socioeconomic Status
SURPS	Substance Use Risk Profile Scale
WHO	World Health Organization

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Dedication

This thesis is dedicated to my sister Ms. Midhat Fatima, my parents and siblings for their love,
endless support, and encouragement.

Chapter 1

Introduction

Trauma is the body's psychological and emotional response to an extremely distressing event. An individual may experience a single or a sequence of events that are exceedingly stressful for them to handle and may have a long-term negative impact on their physical, mental, and emotional health. A danger to one's life or safety is a common element of traumatic events, but they can also include experiences like being abused either mentally or physically, being in an accident, seeing violence, or sudden loss of loved one (Cafasso, 2023; Bernstein et al., 2003; World Health Organization, 2022).

Early childhood is an important phase in human development because it establishes the base for a person's long-term physical, emotional, mental, and social health. Significant brain changes as well as rapid growth occur during this time, laying the foundation for future behavior, and health related outcomes. Adverse experiences, particularly those that are traumatic, can have a significant effect on this developmental path. Trauma experienced as a child interferes with the brain's normal functions, affecting stress response mechanisms and impacting memory and emotional processing regions. These changes may result in difficulties in managing stress and regulating one's emotions. Additionally, children who have experienced trauma may adopt maladaptive coping methods. These coping methods may develop into behavioral patterns that continue into adulthood, which can lead to persistent emotional dysregulation and challenges with effective emotion management. In addition, childhood trauma often results in emotional dysregulation, a state in which people struggle to regulate strong emotions and may use drugs to cope or numb their suffering.

Emotional disturbance resulting from any traumatic experience is one of a major contributing factor to increased ratio of substance abuse in Pakistan (Khalily, 2011).

The physical and mental health of individuals is greatly affected by exposure to traumatic events during childhood (Zhang et al., 2020). According to Jirek (2011) almost 90% of children suffer traumatic events at some stage in their lives. The likelihood of substance misuse in later life is considerably increased by childhood trauma due to a complex combination of biological, social, and psychological variables. These events have a detrimental impact on their lives, including drug use (Akcan et al., 2021; Brady & Back, 2012). Substance abuse and its negative consequences are undoubtedly an important issue and have an impact on society as a whole (Abdo et al., 2020). In spite of several adverse consequences, there are also a large number of young people who have been through traumatic experiences in childhood exhibit resilient functioning (Meng et al., 2018). One of the key components that have been associated with resilient functioning is future orientation. The literature has shown that having an optimistic outlook on the future is crucial for protecting young people who have experienced childhood adversity (Oshri et al., 2018). In addition, a number of various factors that greatly impact this vulnerable population include gender, social pressures, low income, insufficient parental involvement and connections, an unhealthy familial structure and drug availability (Somani & Meghani, 2016). The complex correlation between childhood traumatic experiences, emotional dysregulation, future orientation and vulnerability to substance abuse emphasize the essential need to comprehend and address the distinctive risks faced by young adults.

1.1 Rationale of the Study

A person's personality is a broad concept that includes almost all their distinctive characteristics. Every person has a distinct personality that is influenced by their surroundings, upbringing, and prior experiences. These encounters shape people's unique patterns of characteristics and preferences by influencing their thoughts, feelings, and behaviors. Knowing a person's personality may help you anticipate their values and interests as well as how they will react in particular circumstances. Several personality traits have emerged as critical predictors of substance-use behaviors (Conrod et al., 2011; Littlefield, et al., 2010). This research is prompted by the increasing trend of substances abuse among university students, posing concerns at society and individual levels. While ongoing multidisciplinary researches exploring substance abuse, there's an area to explore the personality traits associated with increased risk of substance use.

Furthermore, research has shown that past experiences specially the childhood traumatic experiences has been found to influence a person personality development (Fuchshuber & Unterrainer, 2020). So, it's imperative to investigate the how childhood traumatic experiences and several risk factors, including as gender, family structure, living status, socioeconomic status, emotional dysregulation, future orientation may contribute to heightened vulnerability to substance abuse in Pakistani youth in term of personality aspects. Recognizing the complexity of these issues, a national perspective is crucial. Around the world, childhood adverse experiences are linked to risky behaviors and poor health consequences, including substance abuse. Understanding a person's personality may help you anticipate how they would react in particular situations and that how certain personality traits

may contribute to the increased risk of substance abuse. Additionally, those who were abused as children may have emotional instability and find it difficult to deal with their emotions. Mental health problems in Pakistan have increased to a concerning level in recent decades. Furthermore, an increased risk of serious mental problems has been found to be associated with greater exposure to traumatic experiences especially during childhood (Khalily, 2011). Moreover, positive outlook on future has been found to mitigate the negative outcomes of childhood negative experiences (Oshri et al., 2018). However, there are not enough researches exploring the relationship between childhood trauma and vulnerability to substance misuse in the context of personality traits, emotional dysregulation and future orientation in countries with low and moderate incomes, which includes a large portion of Asia. Despite the fact that the majority of young people worldwide reside in countries with low or middle incomes (United Nations, 2022), very few ACE research have been carried out in these regions. Further research is required to explore the circumstances behind these correlations. The current study filled these gaps by focusing on Pakistan, a low-income nation with a significant increasing number of individuals involve in substance abuse, (United Nations Office on Drug and Crime, 2013).

This objective of the study is to investigate the association between childhood traumatic experiences and the vulnerability of substance abuse among university students and how emotional dysregulation and future orientation are affecting this relationship. The study recognizes emerging adulthood as a critical age group; where in individuals are particularly susceptible to engaging in risky behaviors such as substance abuse. Understanding the factors that contribute to substance abuse in this vulnerable population can provide valuable insights into prevention and intervention strategies. The current study will also provide information

regarding this new combination of variables. Ultimately, the findings aim to enhance the development of more effective prevention programs targeting youth substance abuse.

1.2 Research Problem

To investigate the relationship between childhood traumatic experiences and vulnerability to substance abuse and to study the emotional dysregulation as mediating variable and future orientation as moderating variable among students in university.

1.3 Objectives of the Research

This study's objective includes:

1. To study the association between childhood traumatic experiences, emotional dysregulation, vulnerability to substance abuse and future orientation among students in university.
2. To investigate the role of childhood traumatic experiences as a predictor on emotional dysregulation, vulnerability to substance abuse among students in university.
3. To determine the role of emotional dysregulation as mediating variable on the association between childhood traumatic experiences and vulnerability to substance abuse among students in university.
4. To investigate the role of future orientation as moderating variable on the relationship between childhood traumatic experiences and vulnerability to substance abuse among students in university.
5. To investigate the demographic variable's group differences (i.e., gender, socioeconomic status, living status, and family structure) on childhood traumatic

experiences, emotional dysregulation, vulnerability to substance abuse and future orientation among students in university.

1.4 Study Questions

1. How are childhood traumatic experiences and vulnerability to substance abuse are related?
2. How would emotional dysregulation impact an individual if they have experienced childhood trauma in relation with vulnerability to substance abuse?
3. How future orientation impact an individual's vulnerability to substance abuse if they have experienced any childhood trauma?

1.5 Hypotheses

In this study, the null hypotheses are

Ho1: There is no relationship between childhood traumatic experiences (Neglect, Family psychological distress, home violence and community violence), emotional dysregulation and vulnerability to substance abuse (negative thinking, anxiety sensitivity, impulsivity and sensation seeking) among university students

Ho2: There is no relationship between future orientation and vulnerability to substance abuse among university students

Ho3: Childhood traumatic experiences (Neglect, Family psychological distress, home violence and community violence) does not predict emotional dysregulation and vulnerability to substance abuse (negative thinking, anxiety sensitivity, impulsivity and sensation seeking) among university students

Ho4: Emotional dysregulation does not mediate the relationship between childhood traumatic experiences (Neglect, Family psychological distress, home violence and community violence) and vulnerability to substance abuse (negative thinking, anxiety sensitivity, impulsivity and sensation seeking) among university students.

Ho5: Future orientation does not moderate the relationship between childhood traumatic experiences and vulnerability to substance abuse in university students.

Ho6: There is no gender difference among university students on childhood traumatic experiences, emotional dysregulation, future orientation and vulnerability to substance abuse

Ho7: There is no socioeconomic difference among university students on childhood traumatic experiences, emotional dysregulation, future orientation and vulnerability to substance abuse

Ho8: There is no living status difference among university students on childhood traumatic experiences, emotional dysregulation, future orientation and vulnerability to substance abuse

Ho9: There is no family structure difference among university students on childhood traumatic experiences, emotional dysregulation, future orientation and vulnerability to substance abuse

The research hypotheses outlined below are based on the null hypotheses previously stated.

H1: There is a positive relationship between childhood traumatic experiences (Neglect, Family psychological distress, home violence and community violence) emotional dysregulation and vulnerability to substance abuse (negative thinking, anxiety sensitivity, impulsivity and sensation seeking) among university students

H2: There is a negative relationship between future orientation and vulnerability to substance abuse among university students.

H3: Childhood traumatic experiences (Neglect, Family psychological distress, home violence and community violence) positively predict emotional dysregulation and vulnerability to substance abuse (negative thinking, anxiety sensitivity, impulsivity and sensation seeking) among university students.

H4: Emotional dysregulation mediates the relationship between childhood traumatic experiences (Neglect, Family psychological distress, home violence and community violence) and vulnerability to substance abuse (negative thinking, anxiety sensitivity, impulsivity and sensation seeking) among university students.

H5: Future orientation moderates the relationship between childhood traumatic experiences and vulnerability to substance abuse in university students.

H6: Females are more likely to be affected by childhood traumatic experiences, emotional dysregulation and vulnerable to substance abuse than males and males are more likely to be future oriented than females

H7: Low socioeconomic status is more likely to be associated with childhood traumatic experiences, emotional dysregulation, vulnerability to substance abuse and low future orientation among university students.

H8: Students living in hostel are more likely to be affected by childhood traumatic experiences, emotional dysregulation, vulnerability to substance abuse and low future orientation than those living with family

H9: Students living in nuclear family are more likely to be affected by childhood traumatic experiences, emotional dysregulation, vulnerability to substance abuse and low future orientation than those living with joint family.

1.6 Conceptual Framework

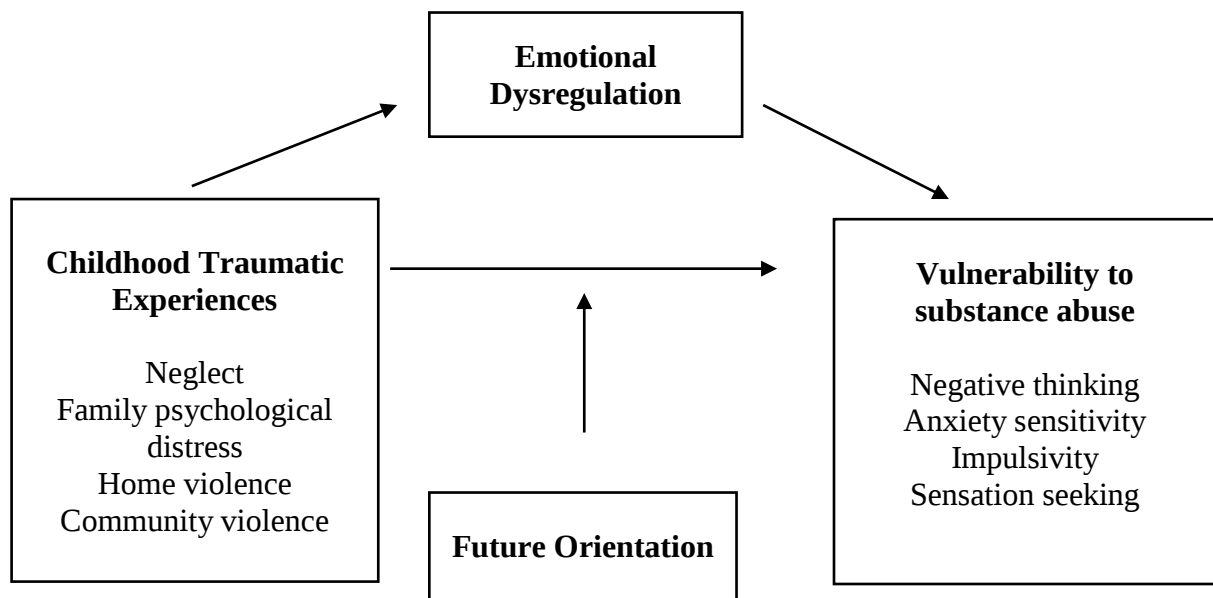


Figure 1. Figure illustrating the current study's conceptual model. The relationship between Childhood Traumatic Experiences and Vulnerability to Substance Abuse among University Students: Role of Emotional dysregulation and Future orientation.

Based on prior research, the model shown in Figure 1.1 was designed for the present investigation. Childhood traumatic experiences are presented as the independent variable, with vulnerability to substance abuse as the outcome variable in this model. Childhood traumatic experiences or adverse childhood experiences is one such negative encounter imprinted in the brain's memory function, that its affects will even remain in adulthood (Waite & Ryan, 2020). These traumatic events affect the development and

growth physiologically and increase the likelihood that they may experience mental health issues in the future. Many kinds of mental illnesses, such as anxiety, mood disorders, drug misuse, trauma-related stress disorder, thoughts of self-harm have been connected to childhood adversity (Rogers et al., 2021; Varese et al., 2012; Sachs et al., 2016). Similarly, several researches confirm the harmful impacts of adverse childhood events on functioning across the entire lifespan (Hamai & Felitti, 2022).

The current study additionally aims investigate the role of emotional dysregulation as mediator in relationship between childhood traumatic experiences and vulnerability to substance abuse. Having trouble controlling and reacting to emotional events in a healthy, adaptive manner is known as emotional dysregulation. People who struggle with emotional regulation may have strong emotional reactions (such as impulsivity, anxiety, grief, or rage) that feel overpowering or uncontrollable (Bradley et al., 2011; Powers et al., 2015). This challenge may make them more susceptible to substance misuse. Another aim of this research was to investigate the moderating role of future orientation in the relationship between childhood traumatic experiences and vulnerability to substance abuse because it has been suggested that people who are positive about their own future will thus act in ways that will assist them in reaching their objectives and refrain from acting in ways that might limit their progress.

1.7 Operational Definitions

Childhood Traumatic Experiences

Childhood traumatic experience are stresses include verbal, emotional, and physical assault as well as neglect that emerge prior to turning eighteen that have the

potential to negatively influence on a person's well-being (CDC, 2020a; Sheffler et al., 2019). In the current research, operational definition of childhood traumatic experiences is as the scores on ACE International Questionnaire (WHO, 2018; Katherine et al., 2021). This scale comprises four domains: (a) neglect, (b) family psychological distress, (c) home violence, and (d) community violence. A high score on scale or on each domains shows the presence of specific childhood traumatic experience

Emotional Dysregulation

Emotional dysregulation is a impair ability to control and regulate emotional responses. It includes a variety of maladaptive emotional reactions, such as increased emotional reactivity, trouble controlling feelings of anger, impulsivity in emotional expression, and a lack of useful coping mechanisms for efficient emotional regulation (Wolff & Shi, 2012; Messman et al., 2017; Gratz, 2010). In the present study, operational definition of emotional dysregulation is as the scores on Emotional Dysregulation Scale- short form (EDS-S) (Powers et al., 2015). Higher emotional dysregulation is indicated by a high score on the scale, whereas lower emotional dysregulation is indicated by a low score.

Future Orientation

Future orientation is typically the extent to which individuals engage in future-oriented thinking, planning, and goal-setting (Steinberg et al., 2009) It includes the ability to anticipate future events, set long-term goals, and adopt behaviors that align with achieving those goals. (Strathman et al., 1994). In current research, operational definition of future orientation is as the scores on Future Orientation Scale (FOS) (Steinberg et al., 2009). This scale comprises three sub-scales: (a) planning ahead, (b) time perspective, and (c)

anticipation of future consequences. Higher future orientation is indicated by a high score on the scale or sub-scales, whereas lower future orientation is indicated by a low score.

Vulnerability to Substance Abuse

Substance abuse is characterized by an overwhelming desire to take the substance even after suffering negative effects (Zhiling Zou, 2017). This study is based on four personality dimensions that seeks to predict the vulnerability to substance abuse by correlating the primary personality-based motivations. In the current study, vulnerability to substance abuse is operationally defined as the scores on Substance Use Risk Profile scale (Woicik *et al.*, 2009). There are four sub-scales within this scale: (a) hopelessness, (b) anxiety sensitivity, (c) impulsivity, and (d) sensations seeking. A higher vulnerability to substance abuse is indicated by a higher score on the scale or sub-scales, whereas a low score indicates a low vulnerability to substance abuse.

Chapter 2

Review of Literature

2.1 Childhood Traumatic Experiences

Trauma is recognized as a major factor in determining deviant behaviors in both adults and children. Trauma is usually referred as an event, sequence of events, or collection of circumstances that a person perceives as physically or emotionally damaging or life-threatening and that has a long-lasting negative impact on their functioning and mental, physical, social, emotional, or spiritual well-being (SAMHSA, 2014). Childhood trauma stands out because of its long-term effects on mental and physical health. A wide definition of childhood trauma includes negative experiences that happen in early life, such as physical, emotional, and sexual abuse, as well as other traumatic occurrences like exposure to war or natural disasters (Bremner et al., 2007; Khantzin, 2013; CDC, 2020). These events generally occur before the age of eighteen.

Childhood traumatic experiences or adverse childhood experiences (ACEs), have been first identified by Felitti et al. (1998) and include violence, psychological, physical, and sexual abuse, as well as dysfunction in the home, such as parental substance misuse, mental illness, or incarceration. Later studies broadened the definition of ACEs to include parental incarceration or suicide attempts, peer victimization, social isolation, and community violence (Finkelhor et al., 2015; CDC, 2020). These further classifications emphasize the understanding that ACEs include contexts that endanger a child's stability and overall well-being in addition to occurrences of direct abuse. (Crouch et al., 2019).

The extent of childhood trauma and its consequences is often shaped by cultural and demographic factors. Numerous studies have confirmed that adversities throughout childhood greatly raise the chance of negative consequences in adulthood. Studies reveal a strong association between adverse health consequences, such as increased chances of mental health issues and drug misuse, and childhood trauma (Slack, 2017). Nevertheless, several researches demonstrate that individuals with histories of trauma, face an increased risk of drug use (Breslau, 2013; Dupe et al., 2003; Slack, 2017; De Graff et al., 2002; Scott et al., 2013). Studies reveal that children with higher ACE scores are more likely to initiate substance use at an earlier age (Sartor et al., 2017). Furthermore, over 90% of patients with alcohol or drug use disorders report having experienced at least one traumatic event in their lifetime (Peirce et al., 2009; Reynolds et al., 2005). According to Felitti (2003), there is a direct correlation between the number of ACEs and adult substance abuse. Those who have had six ACEs are 46 times more likely to report using intravenous drugs than those who have not.

The risk of ACEs and maltreatment are also linked to caregiver attitudes, parental stress, and external factors such as low family income or neighborhood poverty (Allen & Donkin, 2015; Pelton, 2015). These conditions create an environment in which children are more vulnerable to trauma, leading to developmental delays that often extend into adulthood. Physical violence victimization and transitional life events have been identified as significant predictors of subsequent substance use (Baker et al., 2010; Debowska et al., 2018)

Childhood trauma can affect a person at any stage of life and interferes with emotional control, self-identity, interpersonal connections, and self-care. Studies have also linked a variety of mental illnesses to trauma related emotion dysregulation (Sheppes et al., 2015).

Childhood trauma appears to severely impact brain development. One of these effects is disorders of the emotions. Neglect and abuse during childhood can increase the likelihood of emotional problems by making it difficult for an individual to manage their emotions later in life (Wingenfeld et al., 2011). Several researches have looked at emotion dysregulation as a mediator between an event and substance use, such as child abuse, PTSD symptoms, or hoarding behaviors. (Mandavia et al., 2016; Raines et al., 2017; Tull et al., 2015) People who were raised in an environment that did not value their emotions tend to be impulsive and choose non-adaptive coping mechanisms, such as substance misuse, to cope with the negative emotional events they encounter. WHO, 2018 and Katherine et al., 2021 defined childhood traumatic experiences as neglect, home violence, family psychological distress and community violence.

Neglect is commonly perceived as a lack of involvement, which means that caregivers have not contributed to the child's healthy development on purpose or through mistake. In the past, neglect has been defined as the chronic absence of caregivers who are unable to meet the child's physical needs, such as providing them with adequate medical care and food (CDC, 2008). More recently, the definition has been expanded to include inadequate supervision physical neglect and psychological neglect (Coohey, 2003). Child neglect is a common and serious problem that frequently coexists with other types of child maltreatment (Avdibegovic & Brkic, 2020).

Physical neglect is characterized by the failure to meet basic physical needs, including adequate food, hygiene, shelter, and clothing appropriate for the climate. It also includes the failure to provide clean, properly fitting clothing, and medical care (Stoltenborgh et al., 2013).

Risk factors for physical child neglect are largely similar to those for other forms of maltreatment and are closely related to negative parental attributions, increased parental stress, increased parental anger and reactivity, and low self-esteem. Furthermore, the frequency of neglect increases with the accumulation of stressors experienced by parents (Stith et al., 2010). Parental incarceration, in particular, has been identified as an important factor in neglect (Mulder et al., 2018). Furthermore, parental mental health problems have been modestly associated with increased child neglect, with evidence showing a small but consistent association between neglect and parental history of child maltreatment (Stith et al., 2010). Parental substance abuse has also been shown to be associated with childhood neglect (Clarke, 2015; Vanderminden et al., 2019).

Emotional neglect refers to the child's caregiver's inability to provide them with adequate care, education and may involve exposing the children to dangerous situations, such as parents who abuse their own children. It also encompasses not seeking higher levels of care for behavioral or mental problems or addressing troublesome behaviors (Stoltenborgh et al., 2013). Research shows that psychological neglect often coexists with other forms of child abuse and serious family problems (Murphy et al., 2018; Vachon et al., 2015).

Research shows that emotional neglect often co-occurs with physical neglect, highlighting the interconnected nature of these forms of maltreatment (Vanderminden et al., 2019; Vachon et al., 2015). Physical neglect as well as emotional neglect is identified as the most prevalent form of child maltreatment in prevalence studies, (Finkelhor et al., 2015; Radford et al., 2011; Stoltenborgh et al., 2013; Ashton et al., 2016). According to Dong et al.

(2004), physical neglect raised the chance of physical abuse by four times and psychological abuse by six times.

Neglect is closely linked to an increased risk of polyvictimization. Neglected children are more likely to experience other forms of maltreatment, such as abuse by caregivers and victimization by peers (Turner et al, 2019). Research consistently shows that neglected children face an increased risk of substance use. In addition, childhood abuse, including physical abuse and neglect, has been found to significantly increase the likelihood of substance use during adolescence.

Family psychological distress is the emotional and mental difficulties that arise in a family as a result of stresses such as conflicts, loss, or mental health conditions. Relationships and personal wellbeing may suffer as a result (American Psychological Association, 2013). Addiction, anxiety disorders, and depression are common mental health issues among parents. According to estimates from WHO, between 10 and 14 percent of individuals worldwide will deal with a mental health issue at some point in their lives (Cooper, 2018; Ritchie & Roser, 2018). According to a number of studies, parental mental health issues are linked to a higher chance of negative child outcomes, such as trouble regulating oneself, more emotional and cognitive difficulties, and more stress from taking care of or worrying about a sick parent (Aldridge, 2006; Wu et al., 2019; Yan & Dix, 2016, Campbell et al., 2007; Sohr-Preston & Scaramella,2006)

Additionally, the existence of other family issues, such as parental drug abuse and domestic violence, might increase the likelihood of childhood adversity and increase the

impact of mental illness on parenting and family dynamics (Sidebotham et al., 2016; Ashton et al., 2016; APA, 2013; Drummond et al., 2016; Velleman & Templeton, 2016).

Parental separation and caregiver imprisonment are also significant factors that contribute to psychological distress in families. When a parent or family member is imprisoned by the criminal justice system, this is known as caregiver incarceration (Murray et al., 2012). Parents who are incarcerated frequently deal with a variety of difficulties, such as drug abuse, mental health disorders, homelessness, unemployment, and residing in underprivileged or high-crime neighborhoods (Hawthorne et al., 2012). Furthermore, ACE prevalence was found in those who grew up in house where their parents had separated (Ashton et al., 2016).

Home violence as childhood trauma, such as witnessing or experiencing domestic violence, can result in lasting emotional and psychological effects when a parent fails to protect their child from ongoing violence in the home, neighborhood or community (CDC, 2008; Kairys & Johnson, 2002; WHO, 2016). It has been found in studies that many children experience witnessed abuse between their parents and other family members during their childhood (Radford et al., 2011; Finkelhor et al., 2015; Hamby et al., 2011). The likelihood of domestic violence is heightened by various factors, including parental substance abuse, low parental education and economic deprivation (Abramsky et al., 2011; Costa et al., 2015; McTavish et al., 2016).

Physical abuse is defined as the deliberate use of force against a child that results in or has the potential to result in bodily harm (CDC, 2008; Barnett et al., 1993). Physical abuse is frequently episodic, associated with parental stress or disputes within the family, and can result from discipline or punishment. Studies reveal that families facing severe financial difficulties

are more likely to experience physical abuse, which is thought to increase parental stress and decrease tolerance and empathy for children (Stith et al., 2009; Whipple & Webster-Stratton, 1991; Conrad et al., 2019). Children who have witnessed or encountered high levels of violence and aggressiveness in the family are more likely to become victims of violent crimes as adults or to be victimized by peers at school (Finkelhor et al., 2009; Vu et al., 2016). Additionally, children who witness domestic violence are more likely to experience mental health issues such as anxiety, sadness, and trauma symptoms (Evans et al., 2008).

Psychological abuse, emotional abuse, and emotional maltreatment includes verbal abuse, rejection, intimidation, and neglect of the child's emotional needs, (Hibbard et al., 2012; Vissing et al., 1991; CDC, 2008; Barnett et al., 1991; Clarke, 2015; Glaser, 2002; Shaffer et al., 2009). Adversities such as financial difficulties, parental substance abuse, mental health disorders, life pressures, and social isolation increase the likelihood of psychological abuse in families (Chamberland et al., 2011; Conrad et al., 2019). While the effects of emotional abuse are less severe than those of physical or sexual abuse, research shows that emotional abuse is linked to an increased risk of drug use throughout emerging adulthood.

Community violence includes seeing and being a part of violent incidents that occur in a community. Street crimes like rape, physical assaults, and gang violence are examples of these, as are other harmful communal conditions. ACE has lately been expanded to include exposure to community violence (Anda & Butchart, et al., 2010; Finkelhor et al., 2015; WHO, 2009). According to Finkelhor et al. (2010), children are more likely to encounter community violence, and early-life mental health problems are linked to greater levels of exposure to community violence (Franzese et al., 2014; Zinzow et al., 2009). Young people exposed to

community violence are more likely to turn to risky behaviors like substance abuse as a coping mechanism for unresolved trauma (Lynch, 2003; McChesney et al., 2015).

ACEs have been connected to bullying victimization, which can have detrimental long-term impacts on mental health (Karatekin & Hill, 2019). Bullying involves repeated aggression, including verbal, physical, and social exclusion, and can occur in person and online (Olweus, 1991; Smith et al., 2008). Harsh parenting, low family finances, and child abuse are risk factors for bullying (Barker et al., 2008; Bowes et al., 2009). Furthermore, bullying victimization has long-lasting psychological effects and can result in mental health problems (Brunstein et al., 2019; Solmi et al., 2021; Arsenaault, 2018; Takizawa et al., 2014; Jackson et al., 2016; Wade et al., 2014).

2.2 Vulnerability to Substance Abuse

Personality refers as a person's recurring thought, emotion, and behavior patterns. It emerges as a result of both life events and natural tendencies. Even while personality might change over time, essential characteristics of an adult tend to remain same. Personality traits are influenced by a variety of environmental influences in addition to innate characteristics. In personality study, some of the most crucial topics center on why people acquire their distinctive characteristics and how much they evolve over time. Among the different approaches to studying personality, it is important to understand individual variations through personality trait analysis (Deary et al., 2003). Several hypotheses have been presented to describe the nature of personality and the influences on its development. Non-hereditary factors are given more weight in some ideas. Even while a person's personality is usually constant, it can change over the course of their life, sometimes in very noticeable ways. Knowing someone's

personality helps you understand their values, preferences, and likely reactions to different situations.

A complex interaction between life events, environmental factors, and genetic predispositions shapes personality traits. This process is greatly influenced by the environment, which includes social interactions, cultural norms, and upbringing. Events in life, especially traumatic ones, can have a big impact on how traits develop and manifest, which may lead to maladaptive behaviors. People form habits that they can maintain into adulthood during the crucial time between adolescence and early adulthood (Wittchen et al., 2008). Since substance abuse can be influenced by these same environmental and personal circumstances, this developmental stage is very significant when thinking about how substance misuse may appear.

These dynamics are closely linked to substance misuse. Certain circumstances may make certain people more vulnerable to substance misuse, whereas other people might not be as vulnerable. Certain personality qualities have been found to be associated with a higher likelihood of substance misuse (Butler & Weiner, 2016). These features, which are linked to impulsivity, anxiety sensitivity, hopelessness, and sensation seeking, are believed to predict substance addiction (Mitchell & Potenza, 2014). Since personality traits influence an individual's susceptibility to addiction, an understanding of these connections helps explain why some people, especially in their early years, may develop substance use disorders (Conrod et al., 2000; Sher et al., 2005; Lejuez et al., 2006; Krueger et al., 2007; Mackie et al., 2011; Benotsch et al., 2014; Krank et al., 2011).

Young people, especially students, are more likely to have mental health issues and participate in risky behaviors such alcohol consumption, smoking, and opiate usage. The wider social problem of drug abuse turn out to be a major public health concern, especially among young adults, increases this vulnerability to risky behaviors (United Nations Office on Drug and Crime, 2022; Welsh et al., 2019; Benotsch et al., 2014; McCabe et al., 2005). These kinds of actions, which frequently start in youth or early adulthood, can have long-term impacts on individuals as well as society. There have been reports of both male and female substance abuse. (McCabe et al., 2005; Weyandt et al., 202; Meisel & Goodie, 2015; Kenne et al., 2017; Weyandt et al., 2022).

A variety of addiction susceptibility traits, including negative thinking, anxiety sensitivity, impulsivity, and sensation-seeking, have been studied and linked to substance abuse by researchers worldwide (Stewart et al., 2021; Chinneck et al., 2018; Scalese et al., 2014; Richmond et al., 2020; Zullig and Divin, 2012). These traits can be used to predict the emergence of substance use disorders by connecting individual attributes to environmental factors and the larger social problem of substance abuse.

Negative thinking is described as negative views about oneself, others, and the world, is frequently related with emotions of depression, despair, and hopelessness (Newton et al., 2016). Such a cognitive pattern has a tendency to intensify negative feelings, which may negatively impact psychological health and exacerbate mental health conditions like anxiety and depression. People who engage in negative thinking may fail to recognize positive outcomes or chances in their lives, resulting in feelings of powerlessness and despair. The

development of appropriate coping mechanisms might be hindered by these feelings, which can seriously affect their capacity to manage stress.

Negative thinking is a strong predictor of addiction susceptibility, particularly in teenagers, according to research. Adolescents with negative thought patterns in particular frequently feel alone, misunderstood, and overburdened, which makes them more prone to unhealthy coping strategies like substance misuse. A gloomy outlook on life can lead to pessimism and heightened susceptibility to depression, both of which are linked with a greater risk of abusing drugs like alcohol and opioids. To reduce negative feelings and depressed symptoms, these drugs can be used as self-medication (Teesson et al., 2008).

Furthermore, negative thinking has been directly associated to the abuse of depressive drugs such sedatives among young adults (Stewart et al., 2021). These drugs may be especially appealing to adolescents because of their soothing effects, which appear to provide temporary relief from stress, anxiety, and depression. This emphasizes the cycle of negative thinking and drug abuse, in which unpleasant emotions lead to substance abuse, which can exacerbate mental health, resulting in a harmful feedback loop. Therefore, by providing healthy coping mechanisms for stress and emotional suffering, addressing negative thought patterns may be essential in the prevention and treatment of substance misuse, particularly among young people.

Anxiety sensitivity (AS) is the fear of physically symptoms of anxiety, such as lightheadedness, shaking, and elevated heart rate. Concerns that these feelings may result in physical sickness, social shame, or a lack of mental control are the main causes of this anxiety (Borrego et al., 2019). AS has been prospectively associated to depression and increased

negative affect, however it is mostly known as a susceptibility factor for anxiety disorders. High anxiety sensitivity increases the chance of higher depressive symptoms, which in turn raises the risk of drug use in numerous contexts (Guillot et al., 2024).

People who are very sensitive to anxiety frequently take drugs to cope with the unpleasant feelings and emotions that come with worry, which makes the link between substance abuse and anxiety sensitivity especially strong (Stewart & Kushner, 2001). This association has been noted for a variety of drugs, such as heroin, alcohol, nicotine and cannabis. People with AS are more likely to use drugs, alcohol, and anxiolytics, which offer short-term respite through unhealthy ways of avoiding the anxiety-related feelings they fear. This maladaptive coping approach has been demonstrated to contribute to a history of drug misuse by those seeking to reduce negative affect. (DeMartini & Carey, 2011; Lejuez et al., 2006; Bonn-Miller et al., 2007).

Furthermore, studies show that medications like benzodiazepines and other anxiolytics are more likely to be used by people with high anxiety sensitivity. Anxiety and stress have been found to be important variables affecting the onset of drug addiction, especially in young people (Sinha, 2008). A history of extreme childhood stress is a significant risk factor for the early initiation of alcohol misuse throughout adolescence, which can result in the development of alcohol and drug dependency in adulthood (Schwab et al., 2011).

Impulsivity is described as a lack of planning and a tendency to act without thinking things through (Mackie et al., 2011; Zuckerman & Kuhlman, 2000; Conrod et al., 2010). It can be a risk factor for substance misuse as well as a result of it. The inability to withhold an

inappropriate or behavior and increased stimulus orientation are linked to impulsivity (Moeller et al., 2001b). In addition, research has connected impulsivity to the severity of drug use, demonstrating a correlation between impulsivity and increased substance use and dependence (Bornovalova et al., 2005; de Wit, 2009; Doran et al., 2009; Gullo & Dawe, 2008; Moeller et al., 2001; Mobini et al., 2005; Patkar et al., 2004). According to this, impulsivity not only plays a role in the emergence of substance abuse but also may aggravate its progression.

Furthermore, one of the most well-researched and reliable risk factors for early substance use and addiction is impulsivity, which is linked to externalizing behavior problems (King et al., 2004; McGue et al., 2001). Impulsivity in people has been repeatedly associated with increased risk for antisocial personality disorder, alcoholism, and dependence on drugs. Particularly when under stress, these people frequently engage in dangerous and risky behaviors and use coping mechanisms that are marked by a lack of self-control and inadequate planning (Sher et al., 2000). Therefore, impulsivity is both a cause and an effect of substance-related behaviors, making prevention and treatment even more challenging.

According to Conrod et al. (2000), there may indeed be a subtype of substance abusers that are impulsive and unable to control their conduct when it has negative repercussions, particularly when the immediate result is positive reinforcement. The assumption that impulsivity plays a major role in the development of substance abuse is further supported by the fact that people with high impulsivity exhibit the greatest rates of stimulant (cocaine) dependency (Conrod et al., 2000b).

Furthermore, new researches have broadened the understanding of the role of impulsivity in substance usage by connecting it to the misuse of prescription medications as

well as illegal drug use. Further evidence of the complex influence of impulsivity on substance-related issues has been found in the correlations between prescription opioid abuse and hopelessness, impulsivity, and sensation-seeking behaviors (Chinneck et al., 2018; Scalese et al., 2014; Zullig & Divin, 2012; Richmond et al., 2020).

Sensation-seeking is characterized by an increased need for stimulation and a low threshold for boredom. This characteristic includes an inclination for unpredictable situations, a general need for thrills, a readiness to take chances in order to experience excitement, and a craving for novelty (Masson et al., 2019). According to Zuckerman (2007), adolescents and young adults who exhibit high levels of sensation-seeking may have a biological need for stimulation, which makes them more prone to substance misuse and the reinforcing effects of positive stimuli or dangerous behaviors like drug use. Studies have consistently demonstrated that the likelihood of smoking, drinking alcohol, and abusing illegal substances is higher among individuals who exhibit high levels of sensation-seeking. (Dom et al., 2006; Stoops et al., 2006).

Previous research indicates that initial use of substance is associated with a tendency toward thrill-seeking and sensation-seeking (Zuckerman, 2007; Quinn & Harden, 2013; Steinberg, 2004). In particular, stimulant abuse has been associated with sensation-seeking behaviors (Herman et al., 2007). Sensation-seeking is linked to a desire for intense, thrilling, and novel experiences, like skydiving or bungee jumping, despite the substantial risks to the individual (Zuckerman, 2007). This desire for excitement and novelty also explains its association with substance use with some suggesting that the novelty-seeking component of sensation-seeking is what drives substance use (Dawe et al., 2004; Zuckerman, 2007).

Sensation-seeking has been linked in a number of studies to increased or sustained substance use. Quinn and Harden (2013), for example, discovered that increasing substance use from mid-adolescence to early adulthood was linked to higher levels of sensation-seeking. Similarly, Flory et al. (2004) discovered that high sensation-seeking separated those who used marijuana early from those who used it later or not at all. This suggests that sensation-seeking plays a significant role in early, continued, and increased substance use.

Many risk-taking behaviors, such as the use of illegal drugs, smoking drinking alcohol, driving after drinking and engaging in risky sexual behavior are strongly predicted by sensation-seeking (Hornik et al., 2001; Johnson & Cropsey, 2000). One reason for the association between alcohol consumption and sensation-seeking in young people and college students is that high sensation seekers find the illicit dangers of alcohol use exciting. This interaction between sensation-seeking and social or contextual factors presumably influences drinking behaviors among college students (Johnson & Cropsey, 2000). Another explanation is that they are motivated to consume alcohol to get a sense of excitement (Read et al., 2003). Additionally, it has been proposed that high sensation seekers are less likely than their low sensation-seeking counterparts to view substance use as a harmful activity because they disregard the potential risks of substance abuse (Hoyle et al., 2002). Moreover, Conrod et al. (2000a) showed that impulsivity and sensation-seeking are two different processes that contribute to susceptibility to drug and alcohol abuse. Studies also indicate that drinking for the intoxicating and euphoric effects of alcohol is linked to sensation-seeking (Comeau et al., 2001).

2.3 Emotional Dysregulation

The term emotional dysregulation (ED) describes the incapacity or difficulty to manage emotional responses effectively. It is distinguished by strong or unsuitable emotional responses to circumstances (APA, 2022b) and deficiencies in the ability to identify and accept emotions as well as in the use of coping mechanisms to control strong, unstable and negative mental states (Gross & Thompson 2007, Marwaha et al., 2014). According to developmental research, self-regulatory deficiencies are caused by a combination of extrinsic factors, such as exposure to adverse experiences, especially in early life, and intrinsic factors, such as biology and temperament.

ED is marked by emotions spiraling out of control, rapid mood changes, intense and unfiltered emotional expression, and the overwhelming of coping mechanisms and reasoning abilities (Bradley et al., 2011; Powers et al., 2015). These patterns of unhelpful emotional reactions make it difficult for individuals to manage their behavior when confronted with unpleasant feelings (Gratz & Roemer, 2008). Currently, ED is understood as a transdiagnostic construct that impacts numerous psychological conditions, including mood and anxiety disorders, substance use disorders, personality disorders, and psychological trauma (APA, 2022b; Powers et al., 2015; Raimondi et al., 2022).

Trauma-related emotional dysregulation has been observed in various populations, including college students (Tull et al., 2007), community members (Ehring & Quack, 2010), emerging adults (Weiss et al., 2012), inpatients with substance use disorders (McDermott et al., 2009; Weiss et al., 2013), and victims of domestic violence (Weiss et al., 2018). Trauma-related emotional dysregulation has been linked to a variety of mental illnesses (Sheppes et al.,

2015). For instance, mood disorders are closely linked to increased mental illness and emotional dysregulation (Eskander et al., 2020; Kim et al., 2018). Research indicates that childhood trauma has a major impact on children's and adolescents' developing brains, which can result in emotional difficulties that last a lifetime. Neglect and abuse during childhood can affect coping strategies and raise the risk of conditions like depression (Wingenfeld et al., 2011). Furthermore, children and adolescents who experience significant emotional and behavioral challenges are at a higher risk of developing problematic substance use behaviors and being diagnosed with a substance use disorder.

Substance abuse have also been found to be significantly predicted by poor emotion regulation skills (Kober & Bolling, 2014). Previous emotional dysregulation potentially a risk factor for substance use behaviors since the inability to control emotions can cause people to use drugs as a coping strategy. ED has been investigated as a mediator between substance use and early life experiences, including PTSD symptoms or child abuse (Mandavia et al., 2016; Raines et al., 2017; Tull et al., 2015). According to the findings, substance-related outcomes are positively correlated with aspects of emotional dysregulation, such as difficulties with impulse control, the inability to accept emotional reactions, emotional ambiguity, and difficulties with goal-directed behavior. Furthermore, the association between early life stress and the risk of substance use is mediated and moderated by a number of factors (al'Absi et al., 2021). Adversity in early life is associated with increased negative mood states in adulthood and is also a predictor of substance use (Zhang et al., 2020).

2.4 Future Orientation

A key component of personality development is future orientation, which involves fusing the imagined future self with the past and present selves. Future orientation is often understood to be the degree to which a person considers the future, foresees future outcomes, and makes plans before acting (Steinberg et al., 2009). An awareness of time that starts at birth and progresses through childhood and adolescence is necessary for the development of the capacity to imagine a future self. Human behavior and current actions are shaped by past experiences and expectations for the future (Güler-Edwards, 2008; Vazquez & Rapetti, 2006).

Future orientation plays a significant role in shaping present behaviors by creating expectations. It reflects thoughts about success or performance in a specific domain based on past experiences (Akman, 2002). Making plans for the future is a basic human trait that encourages accountability for present actions and shapes their course. This ability develops over the course of developmental stages and includes setting goals for one's life, forming expectations for the future, and getting ready for adult responsibilities (Shmotkin & Eyal, 2003).

One important predictor of an individual's ability to overcome challenging circumstances is their future orientation. According to research, interventions for high-risk youth may be more successful if they have a positive outlook on the future. Future orientation acts as a protective factor, which shield people from negative outcomes like drug use. Even when exposed to high levels of risk, young people who have more protective factors are less likely to use drugs (Hawkins et al., 1992; Catalano et al., 1996).

Strong future orientation has been associated with better health and educational outcomes, such as decreased drug use, decreased sexual risk-taking, decreased involvement in violence, and improved academic and professional success. Higher hope levels in emerging adults are associated with lower externalizing behaviors, lower levels of violence and higher academic achievement. Similarly, those who are more optimistic are more likely to have lower rates of substance abuse, and depression. According to Gloppen et al., 2010, future orientation is associated with improvements in mental health, a decrease in violent behavior, and a decrease in drug use.

Furthermore, it has been discovered that future orientation lowers the likelihood of stress-related problems. People who have a strong sense of purpose may be better able to deal with challenging circumstances by addressing obstacles logically and holding onto hope. This capacity for resilience promotes optimism, happiness, and fulfillment while decreasing depressive symptoms. These results are consistent with earlier studies that found a positive correlation between psychological well-being and having a purpose in life.

The course of present activities and contentment with oneself and life are influenced by optimistic expectations for the future (Yavuzer et al., 2005). A vital component of a healthy identity development process are these expectations. Future plans are shaped by various factors, including environmental conditions, knowledge and skills, socioeconomic status, gender, values, and past experiences. The interactions a person has with their family or caregivers play a crucial role in their development, beginning before birth and continuing throughout their growth. While childhood trauma can have long-lasting effects, a healthy childhood has a positive effect on adolescence and adulthood. According to Adler (1994),

behavior is influenced by both past experiences and expectations for the future. Emotions like fear, anxiety, and disappointment can result from negative experiences, particularly if a person lacks resilience (cited in Akman, 2002). These feelings can then lead to negative expectations for the future. Conversely, positive past experiences help people complete developmental tasks and create positive expectations for the future (Tuncer, 2011).

Childhood trauma experiences have been linked to increased hopelessness, substance abuse, and mental health problems in adolescents (Güler et al., 2002; Özen et al., 2007). Despite these studies, there is a lack of research that specifically looks at how childhood trauma affects expectations for the future. Numerous problems, such as hopelessness, depression, suicide attempts, anxiety, poor academic performance, and psychosomatic symptoms, have been linked to childhood trauma, according to research (Nurcombe, 2000; Ystgaard et al., 2004). Learning disabilities, behavioral issues, substance misuse, low self-esteem, and unfavorable expectations for the future are common among abused children (Cowen, 1999). Although the effects of childhood trauma have been studied, little is known about how it directly affects expectations for the future. Individual can recognize the consequences of their current behaviors and act in ways that align with their future goals, so it is important to reduce the impact of past experiences through protective mental health services. McWhirter and McWhirter (2008) contend that high future expectations can aid in social development and protect against risky behaviors.

Researchers have shown that concentrating on the past is linked to negative mental health outcomes, focusing on the present to taking risks, and focusing on the future to being reliable, planning, and taking future consequences into account. According to studies,

teenagers who have a more optimistic outlook on the future tend to perform better academically. Although attitudes toward career planning were improved by an intervention aimed at improving future time perspective, the caliber of the students' planning outcomes was not.

Several researches showed gender differences exist in the prevalence and presentation of ACEs and substance abuse. Females may be more likely to experience certain types of ACEs such as emotional abuse and neglect, whereas males may be more likely to experience physical abuse (Dube et al., 2005, Springer et al., 2007). Furthermore, Studies have found prevalence of physical and emotional abuse in nuclear families than joint family system (Deb & Modak, 2010; Ozbey, et al., 2018). Individuals living in joint family system have increased future orientation (Silalahi et al., 2023). According to earlier studies males often exhibit higher levels of future orientation than females (Borowsky et al., 2009; Crespo et al., 2013). Moreover, literature suggests hostel inhabitants are more likely to experience stress, anxiety, depression and emotional disturbances along with increased risk of substance abuse (Qureshi et al., 2022; Dasor et al., 2023; Bhattarai et al., 2017; Jawed et al., 2021). Furthermore many researches suggests that individuals from lower socioeconomic backgrounds are more likely to experience ACEs (Anda et al., 2006), psychological distress, including symptoms of depression, anxiety, and other mental health problems (Lorant et al., 2007). Lower socioeconomic is associated with higher rates of substance abuse, including alcohol, tobacco, and illicit drug use, due to factors such as limited access to resources, social support, and coping mechanisms (Grant et al., 2001, Galea et al., 2004).

2.5 Theoretical Model

Life Course Theory

The current study is based on life course approach; also known life course theory. It considers life as a socially structured timeline and recognizes the role of different life stages in shaping behavior and choices. According to this theory development continues even after childhood and shapes a person's path throughout life. It continues throughout various life stages (Elder et al., 2003). Life course theory explores how historical, social, and cultural factors affect people's lives and highlights the interaction between social, psychological, and biological elements throughout life (Elder et al., 2003; Leong et al., 2014; Wethington, 2005). This theory's core idea is "trajectories," which represent long-term patterns of continuity and shifts in areas like education, work, and family life. This viewpoint is based on the larger sociohistorical context, contends that individual trajectories are influenced by factors such as historical occurrences, economic circumstances, and cultural norms (Jones et al., 2019; Liu et al., 2020; Umberson, 2017, Bernardi et al., 2019). Transitions, which are frequently impacted by "turning points" that change their course. Life course theory also emphasizes the significance of "timing," which shows that the age at which life experiences occur may have different consequences on individuals (Elder et al., 2003). It also emphasizes the significance of "linked lives," which show how social ties especially those with family and peers influence events and results. As a result, life course theory offers a flexible framework for comprehending how lives develop in certain historical and social settings (Hutchison, 2010).

According to life course theory, decisions, outcomes, and trajectories in life are influenced by early life experiences (Elder et al., 2003). All of these experiences work together

to shape a person's transition into adulthood. Early experiences throughout critical developmental stages may have a lasting impact on behaviors into adulthood. One's entire life trajectory may not be impacted by a single stressful event, but frequent traumatic experiences in childhood may have negative effects that last a lifetime (Ackerman et al., 2004; Chaplin et al., 2018; Mersky et al. 2013; Nurius et al. 2016). The identification of risk factors for adversity is a major area of life course study, with studies showing that early experiences and beginning resources have a significant impact on well-being (Nurius et al., 2015; H. A. Turner & Butler, 2003). Throughout the life cycle, stressful life experiences have a substantial influence on a variety of behavioral and health consequences (Chaplin et al. 2018; Mersky et al. 2013). Stress in early life can influence how people handle stress in later life. This theory places a strong emphasis on the idea of constant change, childhood experiences, life transitions, and financial stressors can have a long-lasting impact on a person's health, education, and other aspects of their life (Dannefer 2011; Elder et al. 2003; Jones et al. 2018). The timing and length of ACEs are important because they affect future development and health, especially in the first five years of life (Fine and Kotelchuck 2010). Research indicates a connection between childhood ACEs and delinquent conduct, low general health, emotional challenges and drug abuse (Balistreri & Alvira-Hammond 2016; Fagan & Novak 2018; Flaherty et al., 2013; Yu et al., 2022; Gilgoff et al., 2020). Childhood traumatic events have cumulative and temporal effects on mental health (Kessler et al., 2005), which can impair cognitive function and emotional regulation, result in disorders like depression, anxiety, and substance abuse. (Akintunde et al., 2024; Richardson et al., 2023)

Stress responses caused by childhood negative experiences may be either dysregulated or normal, and these coping mechanisms are formed early in a person's development (Gilgoff

et al., 2020). When someone respond in a normal way, they are able to manage and regulate their emotions and use them for benefit rather than detrimental. However, a dysregulated reaction results in an inability to manage the negative emotions brought on by stressful past experiences, which drives people to turn to harmful coping mechanisms like substance abuse. (Chaplin & Aldao 2013; Koss & Gunnar 2018; Teicher & Samson 2016; Whittle et al., 2013). Studies of substance use from a life course perspective were based on early longitudinal research on drug use and abuse, which examined factors influencing the onset, persistence, and withdrawal of substance use. According to life cycle theory, different life events can cause personality features to change over time, which can then affect a person's risk of using drugs. This theory highlights the relationship between personality continuity and change, suggesting that although features tend to stay constant, major life events or transitions might trigger changes that could make a person more susceptible to substance abuse. Strong identity development may cause people to look for new situations, such changing social circles, which might put them at risk for drug use (Roberts et al., 2003). Additionally, environmental changes, including stresses in early childhood, can cause changes in personality characteristics, especially impulsivity and sensation-seeking, which are associated with increased vulnerability to substance abuse (Juchem et al., 2024; Gmel et al., 2020).

Chapter 3

Research Methodology

3.1 Research Phases

The present research was carried out in two stages; the pilot study in the first phase and the main study in the second phase. In the initial phase of study permission of each scale was taken from the authors.

3.2 Pilot Study

To determine the scales applicability to the indigenous people and any changes in the connection between the variables, the scales were tested on smaller group of participants.

Sample

In pilot study samples of hundred students from Rawalpindi and Islamabad universities were taken, with age range from 18 to 25 years ($M = 20.63$; $SD = 2.14$). The pilot study sample comprised 50 male and 50 female participants. The respondents were informed of the review's objectives, and their responses were collected.

Measures

Following scales were used in current research

1. Adverse Childhood Experiences International Questionnaire (ACE-IQ) 12-items adapted version (WHO, 2018).
2. Emotional Dysregulation Scale- short form (EDS-S) (Powers et al., 2015).
3. Future Orientation Scale (FOS) (Steinberg et. al., 2009).
4. Substance Use Risk Profile Scale (SURPS) (Woicik et al., 2009).

Procedure

In the pilot study, data was gathered using a survey method. The first step in the process is to clearly state the goals, such as determining the length of the survey, the clarity of the questions, or the response rates. Additionally, it also includes a consent form that comprises a survey about the purpose, motivation, classification confirmation, assurance of confidentiality, and a set of guidelines to be followed at the institution if participants experience any emotional discomfort. Additionally, participants were given a demographic survey and all scales to be used in the main research. It took about 15 to 20 minutes to finish the survey.

Results

Initially, reliability tests and descriptive statistics were used to assess the reliability of the measures planned for the primary study. The relationship direction between the studied variables was analyzed using correlation analysis. The following is a list of the findings from various investigations.

Table 3.1

Alpha Reliability Coefficient and Descriptive Statistics for the Variables under study (N=100)

Variables	k	M	SD	α	Range		Skewness	Kurtosis
					Actual	Potential		
ACE-IQ	12	3.18	2.37	.74	0-8	0-12	.43	-.95
Neglect	2	.47	.73	.71	0-2	0-2	1.21	-.03
Family psychological distress	4	.25	.66	.64	0-3	0-4	.73	.87
Home violence	3	1.44	1.19	.73	0-3	0-3	.07	-1.52
Community violence	3	1.02	.97	.67	0-3	0-3	.23	-1.42
EDS-S	12	45.85	12.22	.93	12-82	12-84	.11	-.71

SURPS	23	54.99	8.23	.79	39-74	23-92	-.01	-.62
Negative thinking	7	13.10	3.07	.68	7-22	7-28	.28	-.20
Anxiety sensitivity	5	12.76	2.88	.74	6-20	5-20	.01	-.03
Impulsivity	5	12.53	3.02	.73	6-20	5-20	.11	-.60
Sensation seeking	6	16.60	3.71	.78	7-24	6-24	-.10	-.45
FOS	15	42.08	9.00	.89	17-60	15-60	-.32	-.32
Planning Ahead	5	14.58	3.69	.84	7-20	5-20	-.22	-1.06
Time perspective	5	13.13	3.42	.73	5-20	5-20	.02	-.37
Anticipation of Future Consequences	5	14.37	3.80	.84	5-20	5-20	-.49	-.41

Note. k= number of items, ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF=Emotional Dysregulation Scale – Short Form, FOS= Future Orientation Scale, SURPS= Substance Use Risk Profile Scale

The number of components in each scale and its subscales is displayed in table 3.1. together with the actual and projected range, mean, standard deviation, and Cronbach reliability values. Also, skewness, and kurtosis is given for all scales used in this study. Additionally, it is determined that the kurtosis and skewness values fall within the acceptable range. Therefore, it was anticipated that the scales would be applicable to the local sample.

3.3 Item Overall Correlation

Table 3.2

Item-Overall Correlation of Adverse Childhood Experiences International Questionnaire (N=100)

Item No.	r	Item No.	r
1	.54**	7	.43**
2	.71**	8	.53**
3	.33**	9	.37**
4	.42**	10	.72**
5	.57**	11	.64**
6	.50**	12	.33**

*** $p < .001$, ** $p < .01$, * $p < .05$

The Adverse Childhood Experiences International Questionnaire's item-to-item correlation's internal consistency values are shown in table 3.2, which shows that all of the items have a strongly positive correlated with one another.

Table 3.3

Item-Overall Correlation of Emotional Dysregulation Scale – Short Form (N=100)

Item No.	r	Item No.	r
1	.59**	7	.73**
2	.69**	8	.85**
3	.81**	9	.72**
4	.73**	10	.79**
5	.71**	11	.82**
6	.78**	12	.67**

* $p < .05$, ** $p < .01$, *** $p < .001$

The Emotional Dysregulation Scale short form's item-to-item correlation internal consistency values are displayed in table 3.3, which reveals that all of the scale's items have a strongly positive relationship with the scale's overall scores.

Table 3.4

Item-Overall correlation of Future Orientation Scale (N=100)

Item No.	r	Item No.	r
1	.59**	9	.62**
2	.65**	10	.62**
3	.74**	11	.628**
4	.69**	12	.65**
5	.52**	13	.651
6	.61**	14	.55**
7	.58**	15	.66**
8	.52**		

*** $p < .001$, ** $p < .01$, * $p < .05$

The Future Orientation Scale item-to-item correlation internal consistency values are displayed in table 3.4. It shows that there is a considerable positive correlation between all of the items.

Table 3.5

Item-Overall Correlation of Substance Use Risk Profile Scale (N=100)

Item No.	r	Item No.	r
1	.23*	13	.28**
2	.52**	14	.51**
3	.39**	15	.69**
4	.49**	16	.59**
5	.60**	17	.58**
6	.43**	18	.38**
7	.25*	19	.38**
8	.39**	20	.29**
9	.49**	21	.34**
10	.38**	22	.45**
11	.63**	23	.30**
12	.39**		

*p<.05, **p<.01, ***p<.001

The internal consistency values for the Substance Use Risk Profile Scale's item-to-item correlation are shown in table 3.5. It demonstrates a significant positive correlation between all the items.

Table 3.6

Correlation among Adverse Childhood Experiences, Emotional Dysregulation, Future Orientation Scale, Substance Use Risk Profile (N=100)

	ACE-IQ	EDS-SF	FOS	SURPS
ACE-IQ	-	.51**	-.60**	.73**
EDS-SF		-	-.35**	.56**
FOS			-	-.57**
SURPS				-

*** $p < .001$, ** $p < .01$, * $p < .05$

Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF = Emotional Dysregulation Scale – Short Form, FOS = Future Orientation Scale, SURPS = Substance Use Risk Profile Scale

Table 3.6. results showed the research variables' correlation analysis, which clearly represents that Childhood traumatic experiences, emotional dysregulation and vulnerability to substance abuse are significantly positively correlated. Whereas future orientation is significantly negatively associated with other study variables. Thus, the relationship's direction was as predicted by prior literature findings.

3.4 Main Study

To test the research hypotheses of the this study, main study was carried out.

Population

Using convenient sampling technique, 400 individuals between the ages of 18 and 25 from universities in Rawalpindi and Islamabad were chosen for the main study. The inclusion criterion comprises undergraduate students of age group 18-25. Those who were using substance or any psychiatric medication and with mental illness were excluded.

Table 3.7

Demographics Details for Main Study (N=400)

Variables	<i>f (%)</i>	Mean (SD)
Age		20.63(2.14)
Gender		
Male Young Adults	200(50)	
Female Young Adults	200(50)	
Socioeconomic Status		
Lower	125(31.3)	
Middle	142(35.5)	
Upper	133(33.3)	

Living Status	
In Hostel	181(45.3)
With Family	219(54.8)
Family Structure	
Nuclear Family	270(67.5)
Joint Family	130(32.5)

3.5 Data Collection Instruments

Demographic Survey

The demographic survey form comprises of age, gender, socioeconomic status, living status and family structure of students.

Adverse Childhood Experiences International Questionnaire (ACE-IQ)

Childhood traumatic experiences will be measured by an adapted 12-item ACE International Questionnaire (ACE-IQ) (WHO, 2018). It is a self-reported measure that has been verified in global contexts (Kazeem, 2015; Kidman et al., 2019). Katherine et al. (2021) adapted the ACE-IQ to exclude sexual abuse components due to the possibility of significant underreporting and potential risks to the respondent. Adapted version of ACE IQ consists of 12 items with four domains i.e. Neglect (both physical and emotional neglect, e.g. “Did your parents/guardians understand your problems and worries?”, Household Psychological Distress (household drug abuser; household member in prison; household member with severe mental illness), e.g. “Did you live with a household member who was depressed, mentally ill or suicidal?”, home violence (emotional abuse; physical abuse) e.g. “Did a parent, guardian or other household member yell, scream or swear at you, insult or humiliate you?”, and community violence (collective violence; bullying) e.g. “Did you see or hear someone being beaten up in real life?”. It’s a Dichotomous scales. The participants were asked to respond to each item on the questionnaire with a “yes” or “no. It has continuous

score ranging from 0 - 12. Each affirmative response was given one point, and the points were then added together to determine the ACE total score as a continuous variable. The internal consistency with a Cronbach's alpha is .908. while internal consistency of sub domains are neglect and home violence ($\alpha = .660$ - .852), family psychological distress ($\alpha = .687$) and community violence ($\alpha = .866$)

Emotional Dysregulation Scale – Short form (EDS-SF)

Emotional dysregulation will be measured by Emotional Dysregulation Scale- short form (EDS-S) (Powers et al., 2015). It's a unidimensional, self-reported 12-item scale for measure emotion dysregulation (e.g. "When my emotions are strong, I often make bad decisions"). It's a 7-point Likert scale. Participants will be asked to rate each item (from 1 = Not true, 4= somewhat true to 7 = Very true), with greater emotional dysregulation being reflected in higher scores. The Cronbach's alpha of is .93 for the scale.

Future Orientation Scale (FOS)

Future Orientation will be measured by Future Orientation Scale (FOS) (Steinberg et. al., 2009). It is a 15 item self report scale with 3 subscales i.e. planning ahead, time perception and anticipation of future consequences. It's a 4-point Likert scale ranging from left to right i.e. really true for one statement i.e. 1(low future orientation) to really true for the contrasting statement i.e. 4 (high future orientation). Its items were on display as 15 pairs of statements such as, "Some people make decisions and then act without making a plan," but "other people usually make plans before going ahead with their decision" Participants selected only one of the statement phrases that best fit them from pair of each statement. Then they were asked to indicate if whether selected phrase was sort of true for me or really

true for me. Higher score will indicate greater future orientation. The possible range of score is 12 to 60. The reliability coefficient is 0.80 for the scale.

Substance Use Risk Profile Scale (SURPS):

The Substance Use Risk Profile Scale will be used to measure 4 personality traits related with increased vulnerability to substance abuse (Woicik *et al.*, 2009). It is composed of a 23 questions, comprise of 4 subscales: 7 items of negative thinking (e.g. “I feel that I’m a failure”), 5 items of anxiety sensitivity (e.g. “It scares me when I’m unable to focus on a task.”), 5 items of impulsivity (e.g. “I usually act without stopping to think.”), and 6 items sensations seeking (e.g. “I would enjoy hiking long distances in wild and uninhabited territory.”). It’s a 4-point Likert scale, range from (1-4) that is strongly agree to strongly disagree. All items in the negative thinking subscale was reverse scored except one item. The Substance Use Risk Profile Scale (SURPS) and its subscales have good internal consistency, with alpha coefficients ranging from 0.71 to 0.85. Cronbach alpha for subscale are impulsivity (.71), Sensation seeking (.78), negative thinking (.85) and anxiety sensitivity (.73).

3.6 Data Analysis

The current study's data analysis was carried out using IBM SPSS-29 and Process Macro 4.0 in order to achieve its objectives and hypotheses. The first step was to verify the normality assumptions following data cleaning and gathering. Descriptive analysis of the research variables was done in order to determine psychometric qualities by providing skewness, mean, and standard deviation. The reliability analysis was conducted using Cronbach's alpha values. For demographic and other study variables, the mean and standard

deviation were computed for continuous variables, while frequency and percentages were used for categorical data. A correlation analysis was carried out to explore the associations among the variables under study. The influence of the research variables on one another was determined using regression analysis, and the related assumptions were also examined in order to determine the mediation and moderation. To do mediation and moderation analysis, SPSS Process Macro 4.0 was made available. Models 1 and 4 were employed for moderation and mediation, respectively. The demographic variables were analyzed using independent sample t test and one way ANOVA.

3.7 Research Ethics

The current study was initially approved by BASR, and data collecting was carried out after obtaining consent from higher authorities at many institutions in Rawalpindi and Islamabad. Each participant provided their informed consent. After then, available students were approached using convenient sampling technique. A demographic sheet and informed consent were provided to the participants, along with each item for which the authors had already obtained consent. Instructions for completing the questionnaire were provided to the participants. They were informed that their answers would be categorized, that there are no right or incorrect answers, and that the data collected would only be used for research. After then, the data were examined.

Chapter 4

Results

Current study's objective was to examine the association between Childhood Traumatic Experiences and Vulnerability to Substance Abuse among university students. Further, this study aimed to look at the role of Emotional Dysregulation in mediating the link between Childhood Traumatic experiences and Vulnerability to Substance Abuse and their sub-domains. Another objective of the current research is to investigate how Future Orientation moderate the relationship between Childhood Traumatic experiences and Vulnerability to Substance Abuse and their sub-domains. This research also aims to analyze the difference in other demographic traits like gender, age, socioeconomic status, living status and family structure. The results of various investigations are displayed in tables next to the important interpretation.

4.1 Reliability and Descriptive Analysis

First, after examining the assumption for normality and scanning the data, alpha reliabilities and descriptive analysis of ACE International Questionnaire, ACE-IQ 12-item (WHO, 2018), Emotional Dysregulation Scale- short form, EDS-S (Powers et al., 2015), Future Orientation Scale, FOS (Steinberg et. al., 2009), Substance Use Risk Profile Scale, SURPS (Woicik *et al.*, 2009) and of all previously mentioned sub-scales were calculated. The following conclusions were drawn from the descriptive statistics and alpha reliabilities.

Table 4.1

Alpha Reliability Coefficient and Descriptive Statistics for Study Variables in the main study (N= 400)

Variables	k	M	SD	α	Range		Skewness	Kurtosis
					Actual	Potential		
ACE-IQ	12	3.27	1.87	.72	0-9	0-12	.13	-.75
Neglect	2	.51	.75	.68	0-2	0-2	1.08	-.37
Family psychological distress	4	.15	.52	.64	0-4	0-4	.93	.70
Home violence	3	1.59	1.15	.70	0-3	0-3	-.21	-1.45
Community violence	3	1.02	.98	.66	0-3	0-3	.21	-1.46
EDS-S	12	43.58	11.72	.93	19-70	12-84	.04	-.65
SURPS	23	54.67	7.73	.75	39-75	23-92	.20	-.37
Negative thinking	7	13.18	3.34	.73	7-25	7-28	.47	.37
Anxiety sensitivity	5	12.74	3.00	.73	5-20	5-20	-.19	-.03
Impulsivity	5	12.41	3.03	.74	5-20	5-20	.17	-.27
Sensation seeking	6	16.35	3.58	.71	6-24	6-24	-.05	-.29
FOS	15	42.83	7.98	.85	26-60	15-60	.08	-.79
Planning Ahead	5	14.93	3.46	.83	7-20	5-20	-.23	-.87
Time perspective	5	13.46	3.32	.71	5-20	5-20	.01	-.68
Anticipation of Future Consequences	5	14.44	3.39	.77	5-20	5-20	-.41	-.42

Note. k= number of items, ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF=Emotional Dysregulation Scale – Short Form, FOS= Future Orientation Scale, SURPS= Substance Use Risk Profile Scale

The scale's descriptive statistics, alpha reliabilities, and related sub-scales are displayed in Table 4.1. The scales' and their sub-scales' alpha reliabilities vary from .64 to .93, and the

distribution of the data meets normality assumptions, as all the variables' skewness and kurtosis values fall within acceptable limits. of -2 to +2.

4.2 Analysis of Correlations

The relationship between the study variables was analyzed using Pearson Product-Moment Correlation. Correlation was presented in table 4.2 between the variables under investigation and their respective domains. It described that childhood traumatic experiences i.e. neglect, family psychological distress, home violence and community violence have a positive association ($p < .01$, $p < .05$) with vulnerability to substance abuse, emotional dysregulation and their domains. It showed a significant positive correlation between neglect and emotional dysregulation and significant positive association with sub-domains of vulnerability to substance abuse i. e. negative thinking, impulsivity, anxiety sensitivity and sensation seeking ($p < .01$).

The findings also show a strong positive correlation between family psychological distress and emotional dysregulation. Similarly, family psychological distress showed significant positive relation with vulnerability to substance abuse and its sub-domains of i.e. negative thinking, anxiety sensitivity, impulsivity and sensation seeking ($p < .01$). Additionally, the analysis's findings showed a positive and significant correlation between emotional dysregulation and home violence. Similarly, findings also indicate that home violence has a significantly positive correlation with vulnerability to substance abuse and its sub-domains of i. e. negative thinking, anxiety sensitivity, impulsivity and sensation seeking ($p < .01$).

Results showed that there is positive significant relation between community violence and emotional dysregulation. Also, community violence has shown significant positive relationship with vulnerability to substance abuse and its sub-domains of i.e. negative thinking, anxiety sensitivity, impulsivity and sensation seeking ($p < .01$).

Results revealed that childhood traumatic experiences, its sub domains and emotional dysregulation have a significantly negative relationship with future orientation ($p < .05$, $p < .01$).

Additionally, the results of this table demonstrated a significant negative association between future orientation and vulnerability to substance abuse along with its sub-domains of i.e. negative thinking, impulsivity, anxiety sensitivity and sensation seeking ($p < .01$, $p < .05$).

Table 4.2

Correlation among childhood traumatic experiences, Emotional Dysregulation, Substance Use Risk Profile and Future Orientation (N=400)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	ACE -IQ	-	.42**	.41**	.59**	.67**	.66**	.73**	.39**	.39**	.57**	.40**	-.65**	-.59**	-.43**	-.51**
2	Neglect		-	.04	.16**	.21**	.34**	.47**	.31**	.24**	.36**	.22**	-.34**	-.28**	-.24**	-.28**
3	Family psychological distress			-	.04	.17**	.23**	.27**	.13*	.13*	.24**	.15**	-.32**	-.30**	-.22**	-.23**
4	Home violence				-	.03	.33**	.25**	.12*	.17**	.17**	.14**	-.24**	-.25**	-.12*	-.19**
5	Community violence					-	.48**	.60**	.31**	.31**	.48**	.35**	-.54**	-.45**	-.39**	-.42**
6	ED-SF						-	.66**	.29**	.44**	.57**	.30**	-.52**	-.46**	-.31**	-.44**
7	SURPS							-	.48**	.61**	.77**	.56**	-.54**	-.56**	-.29**	-.41**
8	Negative thinking								-	.09	.14**	-.09	-.30**	-.32**	-.19**	-.20**
9	Anxiety sensitivity									-	.43**	.02	-.25**	-.29**	-.09*	-.19**
10	Impulsivity										-	.32**	-.46**	-.45**	-.29**	-.35**
11	Sensation seeking											-	-.28**	-.28**	-.13**	-.25**
12	FOS												-	.81**	.76**	.79**
13	Planning ahead													-	.42**	.46**
14	Time perspective														-	.39**
15	Anticipation of future consequences															-

*** $p < .001$, ** $p < .01$, * $p < .05$ Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF = Emotional Dysregulation Scale – Short Form, FOS = Future Orientation Scale, SURPS = Substance Use Risk Profile Scale

4.3 Comparative Analysis Using Demographic Variables

An independent t-test for group differences was computed. Gender-wise analysis findings of each variable are shown in the table below.

Table 4.3

Gender-Specific Mean Differences for Each Scale and its Corresponding Subscales (N =400)

Variables	Males (n = 200)		Females (n = 200)		<i>t</i> (398)	<i>p</i>	95% CI		<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
ACE-IQ	2.94	1.88	3.61	1.81	-3.66	.001	-1.04	-.31	-.37
Neglect	.45	.71	.57	.78	-1.61	.108	-.27	.03	
Family psychological distress	.09	.39	.21	.62	-2.44	.015	-.23	-.02	-.24
Home violence	1.33	1.17	1.86	1.12	-4.57	.001	-.75	-.29	-.46
Community violence	1.07	1.01	.98	.95	.97	.333	-.09	.28	
EDS-SF	40.96	11.74	46.20	11.14	-4.58	.001	-7.49	-2.99	-.46
SURPS	53.40	7.86	55.95	7.39	-3.34	.001	-4.05	-1.05	-.33
Negative thinking	12.88	3.48	13.48	3.16	-1.82	.070	-1.26	.05	
Anxiety sensitivity	11.70	2.98	13.78	2.64	-7.40	.001	-2.64	-1.53	-.74
Impulsivity	11.96	2.97	12.86	3.04	-1.99	.060	-1.49	.31	
Sensation seeking	16.94	3.86	15.83	3.27	3.09	.002	.40	1.81	.31
FOS	44.40	7.85	41.27	7.83	3.99	.001	1.59	4.67	.39
Planning Ahead	15.51	3.31	14.36	3.53	3.35	.001	.473	1.82	.34
Time perspective	13.89	3.29	13.02	3.31	2.64	.009	.222	1.52	.26
Anticipation of Future Consequences	15.00	3.21	13.89	3.48	3.33	.001	.457	1.77	.33

Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF =Emotional Dysregulation Scale – Short Form, FOS= Future Orientation Scale, SURPS= Substance Use Risk Profile Scale

The table 4.3 demonstrates that there is notable gender-based differences in childhood traumatic experiences, vulnerability to substance abuse, emotional dysregulation and future orientation as well as with the sub-domains of these respective variables in university students.

Findings in the table 4.3 showed that childhood traumatic experiences, family psychological distress, home violence, emotional dysregulation and vulnerability to substance abuse is significant higher in females the males whereas community violence was found non-significantly high in males as compared to females. Likewise, female students' average anxiety levels are significantly higher than those of male students, while sensation seeking was found significantly high in males then females. However non-significant gender differences were found in negative thinking and impulsivity. Results also shows significant gender differences among males and females for future orientation and its subdomains in which male showed higher future orientation then females.

Table 4.4

Living Status Based Mean Differences for Each Scale and its Corresponding Subscales (N = 400)

Variables	Living in Hostel (n = 181)		Living with Family (n = 219)		t (398)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
ACE-IQ	4.12	1.96	2.58	1.47	8.73	.001	1.19	1.89	.09
Neglect	.67	.79	.37	.68	4.02	.001	.15	.45	.41
Family	.29	.72	.03	.18		.001	.15	.36	.51
psychological distress					4.66				
Home violence	1.77	1.17	1.44	1.17	2.82	.005	.10	.56	.28
Community violence	1.38	.96	.73	.89	7.05	.001	.47	.84	.71

EDS-SF	47.29	11.95	40.51	10.61	5.94	.001	4.54	9.03	.60
SURPS	58.10	7.73	51.84	6.49	8.67	.001	4.84	7.69	.89
Negative thinking	13.96	3.59	12.53	2.97	4.29	.001	.78	2.09	.44
Anxiety sensitivity	13.40	3.04	12.19	2.86	4.12	.001	.64	1.79	.41
Impulsivity	13.46	3.12	11.54	2.67	6.55	.001	1.35	2.50	.67
Sensation seeking	17.28	3.58	15.58	3.40	4.84	.001	1.00	2.38	.49
FOS	39.95	8.09	45.21	7.08	-6.85	.001	-6.77	-3.75	-.69
Planning Ahead	13.64	3.461	16.00	3.089	-7.12	.001	-3.01	-1.71	-.723
Time perspective	12.79	3.175	14.00	3.345	-3.69	.001	-1.86	-.57	-.37
Anticipation of Future Consequences	13.52	3.642	15.21	2.958	-5.01	.001	-2.35	-1.02	-.51

Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF =Emotional Dysregulation Scale – Short Form, FOS= Future Orientation Scale, SURPS= Substance Use Risk Profile Scale

Results in the table 4.4 reveal that childhood trauma, emotional dysregulation and vulnerability to substance abuse and their sub domains are significantly high in students living in hostels and compared to those who are living with family. Similarly results also showed that future orientation was significantly high in students living with families as compared to those living in hostel.

Table 4.5

*Family Structure Based Mean Differences for Each Scale and its Corresponding Subscales
(N = 400)*

Variables	Nuclear Family (n = 270)		Joint Family (n = 130)		<i>t</i> (398)	<i>p</i>	95% CI		<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
ACE-IQ	3.38	1.71	3.05	2.16	1.55	.123	-.09	.76	
Neglect	.51	.75	.51	.74	.04	.966	-.15	.16	
Family psychological distress	.13	.46	.18	.62	-.79	.430	-.15	.07	
Home violence	1.69	1.14	1.40	1.23	2.22	.027	.03	.54	.24
Community violence	1.05	.98	.96	.98	.86	.090	-.12	.29	
EDS-SF	43.84	11.22	43.04	12.74	.61	.541	-1.77	3.38	
SURPS	54.85	7.21	54.31	8.72	.62	.538	-1.19	2.28	
Negative thinking	13.24	3.16	13.04	3.69	.55	.585	-.54	.95	
Anxiety sensitivity	12.98	2.79	12.24	3.34	2.18	.030	.07	1.41	.25
Impulsivity	12.40	2.98	12.43	3.15	-.09	.924	-.67	.61	
Sensation seeking	16.23	3.29	16.60	4.12	-.89	.371	-1.18	.45	
FOS	42.67	7.92	43.17	8.14	-.59	.556	-2.18	1.17	
Planning Ahead	14.96	3.37	14.88	3.67	.22	.824	-.65	.81	
Time perspective	13.22	3.38	13.95	3.16	-2.06	.040	-1.42	-.03	-.22
Anticipation of Future Consequences	14.49	3.31	14.35	3.55	.39	.694	-.57	.85	

Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF = Emotional Dysregulation Scale – Short Form, FOS= Future Orientation Scale, SURPS= Substance Use Risk Profile Scale

Table 4.5 illustrates the mean difference in relation to the family structure. The results indicate that mean scores between nuclear and joint family systems differ significantly over different study variable. Findings were significant for home violence, anxiety sensitivity and time perspective domain of future orientation. For all other variables results were non-

significant. Over all results indicates that nuclear families show more childhood traumatic experiences and its sub domains, along with increased emotional dysregulation as compared to joint families. However, future orientation was found to be high in joint family system as compared to nuclear family system.

Table 4.6

Socio-Economic Status Based Mean Differences For Each Scale and its Corresponding Subscales (N=400)

Variables	Lower SES (n = 125)		Middle SES (n =142)		Upper SES (n =133)		F	p	η^2
	M	SD	M	SD	M	SD			
ACE-IQ	4.38	1.64	3.09	1.79	2.43	1.66	43.44	.001	.18
Neglect	.57	.78	.56	.78	.40	.67	2.24	.108	.01
Family psychological distress	.28	.69	.09	.38	.08	.43	6.16	.002	.03
Home violence	2.15	1.02	1.42	1.17	1.26	1.15	23.58	.001	.11
Community violence	1.38	.94	1.02	.98	.69	.91	16.98	.001	.08
EDS-SF	47.06	10.43	45.32	12.43	38.45	10.34	21.87	.001	.09
SURPS	57.02	7.59	54.96	7.65	52.16	7.23	13.76	.001	.06
Negative thinking	14.14	3.38	13.13	3.55	12.32	2.79	10.14	.001	.05
Anxiety sensitivity	13.16	3.02	12.74	3.02	12.34	2.93	2.43	.089	.01
Impulsivity	12.86	2.93	12.83	2.99	11.54	3.01	8.48	.001	.04
Sensation seeking	16.86	3.53	16.26	3.72	15.96	3.43	2.13	.121	.01
FOS	40.14	7.50	41.83	7.83	46.42	7.31	24.15	.001	.11
Planning Ahead	13.71	3.33	14.98	3.46	16.03	3.23	15.50	.001	.07
Time perspective	12.82	3.11	12.73	3.26	14.83	3.17	18.54	.001	.09
Anticipation of Future Consequences	13.61	3.33	14.13	3.48	15.56	3.05	12.37	.001	.06

Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF = Emotional Dysregulation Scale – Short Form, FOS= Future Orientation Scale, SURPS= Substance Use Risk Profile Scale

The socioeconomic status-related differences in study variables among university students are displayed in Table 4.6. Significant mean differences in research variables between various socioeconomic categories were shown in the results. Among these significant levels were found high for ACE-IQ, Family psychological distress, Home violence, Community violence, emotional dysregulation, vulnerability to substance abuse, negative thinking, impulsivity in lower socioeconomic status while significant high level of future orientation and its subscales mean differences have been observed in upper socioeconomic status. To determine the mean differences between the several groups, post hoc analysis was performed. Significant variations in the relationship to the three socioeconomic status groups were shown by post hoc analysis. For a series of planned comparisons between various socioeconomic level groups, the Bonferroni post hoc test was applied.

Table 4.7

Post-Hoc Analysis for the Difference in Mean Scores Between Income Groups for ACE-IQ, Emotional Dysregulation, and its Subscales (N=400)

Variables	(I) SES Group	(J) SES Group	Mean Difference	S.E	p	95% CL	
						LL	UL
ACE-IQ	Lower class	Middle Class	1.28	.21	.001	.78	1.79
		Upper Class	1.95	.21	.001	1.44	2.46
	Upper class	Lower class	-1.95	.21	.001	-2.46	-1.44
		Middle class	-.66	.21	.004	-1.16	-.17
Family psychological distress	Lower class	Middle Class	.19	.06	.008	.04	.34
		Upper Class	.19	.06	.006	.04	.35
	Upper class	Lower class	-.19	.06	.006	-.35	-.04
		Middle class	-.01	.06	1.00	-.16	.14
Home violence	Lower class	Middle Class	.74	.14	.001	.41	1.07
		Upper Class	.89	.14	.001	.56	1.23
	Upper class	Lower class	-.89	.14	.001	-1.23	-.56
		Middle class	-.16	.14	.707	-.48	.16
Community violence	Lower class	Middle Class	.36	.12	.007	.08	.63
		Upper Class	.68	.12	.001	.40	.97
	Upper class	Lower class	-.68	.12	.001	-.97	-.40
		Middle class	-.33	.11	.012	-.60	-.06
EDS-SF	Lower class	Middle Class	1.73	1.37	.619	-1.56	5.02
		Upper Class	8.61	1.39	.001	5.26	11.95
	Upper class	Lower class	-8.61	1.39	.001	-11.95	-5.26
		Middle class	-6.87	1.35	.001	-10.11	-3.64

Note. ACE-IQ = Adverse Childhood Experiences International Questionnaire, EDS-SF = Emotional Dysregulation Scale – Short Form

Post hoc analysis was performed after one-way ANOVA to identify the differences in different socioeconomic categories, such as the upper class, middle class and lower class. The

post hoc analysis results for mean differences in childhood traumatic experiences and their domains are displayed in the table 4.7. The findings indicate that there were significant differences between lower and middle class and lower and upper class ($p < .001$, $p < .01$) for childhood traumatic experiences and its domains (home violence, family psychological distress and community violence). However, between upper and middle class, only total ACE and community violence showed significant differences. Table also shows the post hoc analysis findings for mean differences in emotional dysregulation. Differences were significant between lower and upper class, and upper and middle class ($p < .001$, $p < .01$).

Table 4.8

Post-Hoc Analysis for the Difference in Mean Scores Between Income Groups for Vulnerability to Substance Abuse and its Subscales (N=400)

Variables	(I) SES Group	(J) SES Group	Mean Difference	S.E	p	95% CL	
						LL	UL
Vulnerability to substance abuse	Lower class	Middle Class	2.06	.92	.077	-.15	4.27
		Upper Class	4.87	.93	.001	2.62	7.11
	Upper class	Lower class	-4.87	.93	.001	-7.11	-2.62
		Middle class	-2.81	.90	.006	-4.98	-.63
Negative thinking	Lower class	Middle Class	1.01	.40	.036	.05	1.97
		Upper Class	1.83	.41	.001	.85	2.81
	Upper class	Lower class	-1.83	.41	.001	-2.81	-.85
		Middle class	-.82	.39	.115	-1.76	.13
Impulsivity	Lower class	Middle Class	.03	.37	1.00	-.85	.90
		Upper Class	1.32	.37	.001	.42	2.21
	Upper class	Lower class	-1.32	.37	.001	-2.21	-.42
		Middle class	-1.29	.36	.001	-2.15	-.43

The post hoc analysis's results in table 4.8 showed that there were notable mean disparities among socioeconomic categories in vulnerability to substance abuse and its domains. The results clarify that significant differences between the lowest and higher classes were discovered ($p < .001$, $p < .05$) for vulnerability to substance abuse and its domains (negative thinking, impulsivity). Furthermore, significant mean difference was also found between lower and middle class for negative thinking. However, there were no significant differences between the lower and middle classes for vulnerability to substance abuse and impulsivity.

Table 4.9

Post-Hoc Analysis for the Difference in Mean Scores Between Income Groups for Future Orientation and its Sub-Scales (N=400)

Variables	(I) SES Group	(J) SES Group	Mean Difference	S.E	p	95% CL	
						LL	UL
Future Orientation	Lower class	Middle Class	-1.69	.93	.209	-3.92	.54
		Upper Class	-6.28	.94	.001	-8.54	-4.01
	Upper class	Lower class	6.28	.94	.001	4.01	8.54
		Middle class	4.59	.91	.001	2.40	6.78
Planning Ahead	Lower class	Middle Class	-1.27	.41	.006	-2.25	-.28
		Upper Class	-2.32	.42	.001	-3.32	-1.32
	Upper class	Lower class	2.32	.42	.001	1.32	3.32
		Middle class	1.05	.40	.029	.08	2.02
Time perspective	Lower class	Middle Class	.09	.39	1.00	-.84	1.04
		Upper Class	-2.00	.39	.001	-2.96	-1.05
	Upper class	Lower class	2.00	.39	.001	1.05	2.96
		Middle class	2.10	.38	.001	1.18	3.03
Anticipation of Future Consequences	Lower class	Middle Class	-.52	.40	.600	-1.49	.45
		Upper Class	-1.96	.41	.001	-2.94	-.97
	Upper class	Lower class	1.96	.41	.001	.97	2.94
		Middle class	1.44	.39	.001	.48	2.39

Table 4.9 displays the results of a post hoc study of mean differences in future orientation and its domains across various socioeconomic categories. The findings indicate that there were significant differences between lower and upper class and upper and middle class for future orientation and its domains (Planning Ahead, Anticipation of Future Consequences and Time perspective) ($p < .001$, $p < .05$). However, between lower- and middle-class significant differences were not found for future orientation and its domains.

4.4 Analysis of Regression for Variables Under Study

Table 4.10

Multiple Regression Analysis on Vulnerability to Substance Abuse by Childhood Traumatic Experiences (N=400)

	Vulnerability to Substance Abuse			95% CI	
	<i>B</i>	<i>SE B</i>	β	<i>LL</i>	<i>UL</i>
Neglect	4.27	.34	.41***	3.59	4.95
Family Psychological Distress	2.32	.49	.16***	1.36	3.27
Home Violence	1.95	.21	.29***	1.53	2.37
Community Violence	3.79	.26	.48***	3.27	4.30
	R=.77, R ² =.59, F=146.64***				

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.10 findings demonstrate the effects of Childhood traumatic experiences i.e. neglect, home violence, family psychological distress and community violence on vulnerability to substance abuse. Childhood traumatic experiences like neglect ($B = 4.27$, $\beta = .41$, $p < .001$), family psychological distress ($B = 2.23$, $\beta = .16$, $p < .001$), home violence ($B = 1.95$, $\beta = .21$, $p < .001$) and community violence ($B = 3.79$, $\beta = .26$, $p < .001$) are positive predictors of vulnerability to substance abuse. Childhood traumatic experiences jointly

explained 59% of the change in the vulnerability to substance abuse ($\Delta R^2 = 0.59$, $F = 146.64$, $p < .001$). Among all childhood traumatic experiences, community violence emerged as the strongest positive predictor of vulnerability to substance abuse among university students, indicating that a 3.79-unit increase in vulnerability to substance abuse will follow a one-unit increase in community violence.

Table: 4.11

Multiple Regression Analysis on Negative Thinking by Childhood Traumatic Experiences (N=400)

	Negative Thinking			95% CI	
	<i>B</i>	<i>SE B</i>	β	<i>LL</i>	<i>UL</i>
Neglect	1.27	.21	.28***	.86	1.68
Family Psychological Distress	.46	.29	.07	-.13	1.04
Home Violence	.43	.13	.15***	.17	.69
Community Violence	.78	.16	.23***	.47	1.09
R=.43, R ² =.18, F=22.32***					

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.11 data reveal the effect of childhood traumatic experiences i.e. neglect, home violence, family psychological distress and community violence on dimensions of vulnerability to substance abuse. Childhood traumatic experiences like neglect ($B = 1.27$, $\beta = .28$, $p < .001$), Home violence ($B = .43$, $\beta = .15$, $p < .001$) and community violence ($B = .78$, $\beta = .23$, $p < .001$) are positive predictors of negative thinking dimension of vulnerability to substance abuse. Family psychological distress ($B = .46$, $\beta = .07$) appears as non-significant predictor of negative thinking. Finding shows that childhood traumatic experiences together estimated 18% of the change in the negative thinking dimension of vulnerability to substance

abuse ($\Delta R^2 = 0.18$, $F = 22.32$, $p < .001$). According to the results, among all childhood traumatic experiences, neglect appears to be the significant positive predictor of negative thinking in students at university. This means that for every unit increase in neglect, the negative thinking dimension of vulnerability to substance abuse will increase by 1.27 units.

Table 4.12

Multiple Regression Analysis on Anxiety Sensitivity by Childhood Traumatic Experiences (N=400)

	Anxiety Sensitivity			95% CI	
	<i>B</i>	<i>SE B</i>	β	<i>LL</i>	<i>UL</i>
Neglect	.86	.19	.21***	.48	1.24
Family Psychological Distress	.41	.27	.07	-.13	.94
Home Violence	.51	.12	.19***	.27	.74
Community Violence	.75	.15	.25***	.46	1.04
R=.411, $R^2 = .17$, $F = 20.12$ ***					

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 4.12 demonstrate the impact of Childhood traumatic experiences i.e. neglect, family psychological distress, home violence and community violence on dimensions of vulnerability to substance abuse. Childhood traumatic experiences like neglect ($B = .86$, $\beta = .21$, $p < .001$), Home violence ($B = .51$, $\beta = .19$, $p < .001$) and community violence ($B = .75$, $\beta = .25$, $p < .001$) are positive predictors of anxiety sensitivity dimension of vulnerability to substance abuse. Family psychological distress ($B = .41$, $\beta = .07$) appears to be non-significant predictor of anxiety sensitivity. Finding shows that Childhood traumatic experiences collectively explain 17% of the variance in the anxiety sensitivity of vulnerability to substance abuse ($\Delta R^2 = 0.17$, $F = 20.12$, $p < .001$). According to the results, community violence seems to be the strongest

positive predictor of anxiety sensitivity among all childhood traumatic experiences in university students. This means that for each unit rise in community violence, there will be .75 unit increase in the anxiety sensitivity dimension vulnerability to substance abuse.

Table 4.13

Multiple Regression Analysis on Impulsivity by Childhood Traumatic Experiences (N=400)

	Impulsivity			95% CI	
	<i>B</i>	<i>SE B</i>	β	<i>LL</i>	<i>UL</i>
Neglect	1.26	.17	.31***	.93	1.59
Family Psychological Distress	.88	.24	.15***	.40	1.35
Home Violence	.53	.11	.21***	.32	.73
Community Violence	1.19	.13	.38***	.93	1.44
R=.61, R ² =.37, F= 56.94***					

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.13 results shows the impact of Childhood traumatic experiences i.e. neglect, home violence, family psychological distress and community violence on dimensions of vulnerability to substance abuse. Childhood traumatic experiences like neglect ($B = 1.26$, $\beta = .31$, $p < .001$), family psychological distress ($B = .88$, $\beta = .15$, $p < .001$), Home violence ($B = .53$, $\beta = .21$, $p < .01$) and community violence ($B = 1.19$, $\beta = .38$, $p < .001$) are positive predictors of impulsivity dimension of vulnerability to substance abuse. Finding shows that Childhood traumatic experiences collectively explained 37% variance in the impulsivity of vulnerability to substance abuse ($\Delta R^2 = 0.37$, $F = 56.94$, $p < .001$). For university students, community violence seems to be the strongest positive predictor of impulsivity among all childhood traumatic experiences; an increase of one unit in community violence is associated with a 1.19 unit increase in impulsivity dimension vulnerability to substance abuse.

Table 4.14

Multiple Regression Analysis on Sensation Seeking by Childhood Traumatic Experiences (N=400)

	Sensation Seeking			95% CI	
	<i>B</i>	<i>SE B</i>	β	<i>LL</i>	<i>UL</i>
Neglect	.88	.23	.18***	.43	1.32
Family Psychological Distress	.58	.32	.08	-.06	1.21
Home Violence	.49	.14	.16***	.21	.77
Community Violence	1.07	.17	.29***	.73	1.41
R=.42, R ² =.18, F= 21.38***					

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.14 demonstrate the impact of Childhood traumatic experiences i.e. neglect, home violence, family psychological distress and community violence on dimensions of vulnerability to substance abuse. Childhood traumatic experiences like neglect ($B = .88$, $\beta = .18$, $p < .001$), Home violence ($B = .49$, $\beta = .16$, $p < .001$) and community violence ($B = 1.07$, $\beta = .29$, $p < .001$) are positive predictors of sensation seeking dimension of vulnerability to substance abuse. Family psychological distress ($B = .58$, $\beta = .08$) appears to be non-significant predictor of sensation seeking. Finding shows that Childhood traumatic experiences collectively explained 18% change in the sensation seeking of vulnerability to substance abuse ($\Delta R^2 = 0.18$, $F = 21.38$, $p < .001$). Community violence seems to be the strongest positive predictor of sensation seeking among all childhood traumatic experiences among university students; an increase of one unit in community violence is associated with a 1.07 unit increase in the sensation seeking dimension of substance abuse vulnerability.

Table 4.15

Multiple Regression Analysis on Emotional Dysregulation by Childhood Traumatic Experiences (N=400)

	Emotional Dysregulation			95% CI	
	<i>B</i>	<i>SE B</i>	β	<i>LL</i>	<i>UL</i>
Neglect	5.01	.61	.32***	3.81	6.22
Family Psychological Distress	3.16	.87	.14***	1.46	4.86
Home Violence	3.67	.38	.37***	2.92	4.42
Community Violence	4.51	.47	.38***	3.59	5.42
R= .67, R ² = .45, F = 79.12***					

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.15 illustrate the impact of Childhood traumatic experiences i.e. neglect, home , family psychological distress and community violence on emotional dysregulation. Childhood traumatic experiences like neglect ($B = 5.01$, $\beta = .32$, $p < .001$), family psychological distress ($B = 3.16$, $\beta = .14$, $p < .001$), home violence ($B = 3.67$, $\beta = .37$, $p < .001$) and community violence ($B = 4.51$, $\beta = .38$, $p < .001$) appeared as positive predictors of emotional dysregulation. Childhood traumatic experiences together described 45% of the change in the emotional dysregulation ($\Delta R^2 = 0.45$, $F = 79.12$, $p < .001$). Community violence was the strong positive predictor of emotional dysregulation abuse among all childhood traumatic experiences among university students, with an increase of each unit in community violence will result in a 4.51 unit rise in emotional dysregulation.

Table 4.16

Multiple Regression Analysis on Vulnerability to Substance Abuse by Emotional Dysregulation (N=400)

Vulnerability to Substance Abuse				95% CI	
	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>LL</i>	<i>UL</i>
Emotional Dysregulation	.44	.03	.66***	.39	.48
R= .66, R ² = .44, F= 305.99***					
Negative Thinking					
Emotional Dysregulation	.08	.01	.29***	.05	.11
R= .29, R ² = .08, F= 35.31***					
Anxiety Sensitivity					
Emotional Dysregulation	.11	.01	.44***	.09	.14
R= .44, R ² =.20, F= 97.28***					
Impulsivity					
Emotional Dysregulation	.15	.01	.57***	.13	.17
R= .57, R ² =.33, F= 194.54***					
Sensation Seeking					
Emotional Dysregulation	.09	.02	.30***	.06	.12
R= .30, R ² =.09, F= 39.45***					

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.16 findings demonstrated how emotional dysregulation affects vulnerability for substance abuse and its domains. It demonstrates that emotional dysregulation is a positive predictor of substance abuse vulnerability ($B=.44$, $\beta=.66$, $p<.001$) and accounts for 44% of the variation, meaning that an increase of one unit in emotional dysregulation would result in .44 units increase in vulnerability to substance abuse. Results also showed the influence of emotional dysregulation on each domain of vulnerability to substance abuse and demonstrate that emotional dysregulation is strong predictor ($p < .001$) of respective sub-domain of vulnerability to substance abuse among which emotional dysregulation explain 8% ($\Delta R^2=.08$)

variance in negative thinking, 20% ($\Delta R^2=.20$) variance in anxiety sensitivity, 33% ($\Delta R^2=.33$) variance in impulsivity, 9% ($\Delta R^2=.09$) variance in sensation seeking dimension of vulnerability to substance abuse

4.5 Analysis of Mediation

Mediation analysis was conducted to assess the influence of a third variable on the relationship between the independent and dependent variables. This third variable acts as a mediator, establishing a pathway through which the independent variable affects the dependent variable, thereby shaping the study's interaction effects (Hayes, 2013). In order to determine how emotional dysregulation mediates the relationship between childhood traumatic experiences and substance abuse vulnerability, this study was conducted in SPSS utilizing Andrew Hayes' Process Macro. Using the Process Model 4, basic mediation was carried out using a 95 percent confidence interval and 5000 bootstrapped samples. The results have been tabulated together with the relevant justifications for the data that was gathered.

Table 4.17

Simple Mediation of the impact of Childhood Traumatic Experiences (Neglect) and Vulnerability to Substance Abuse by Emotional Dysregulation (N=400)

Predictors	Vulnerability to Substance Abuse				Negative Thinking			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	51.91***	43.36***	41.82	44.90	12.42***	11.03***	10.18	11.88
Neglect	6.12***	3.75***	2.89	4.61	1.67***	1.28***	.81	1.76
Emotional Dysregulation		.22***	.19	.26		.04***	.02	.06
Indirect effect		2.37	1.74	3.09		.39	.15	.63
R2	.31	.49	$\Delta R^2 = .18$		.13	.16	$\Delta R^2 = 0.03$	
F	181.37	195.82			58.42	36.37		
Predictors	Anxiety Sensitivity				Impulsivity			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	12.22***	9.71***	8.96	10.46	11.53***	8.34	7.69	8.99
Neglect	1.17***	.47*	.03	.06	1.93***	1.04	.68	1.41
Emotional Dysregulation			.00	.05		.08	.07	.09
		.07***						
Indirect effect		.69	.46	.96		.89	.65	1.14
R2	.078	.19	$\Delta R^2 = .11$		.21	.39	$\Delta R^2 .18$	
F	33.79	45.64			106.72	124.56		
Predictors	Sensation Seeking							
	Model 1	Model 2	95% CL					
	B	B	LL	UL				
Constant	15.73	14.28	13.34	15.21				
Neglect	1.36	.96	.44	1.47				
Emotional Dysregulation		.04	.02	.06				
Indirect effect		.40	.16	.68				
R2	.08	.10	$\Delta R^2 = .02$					
F	32.38	22.34						

* $p < .05$, ** $p < .01$, *** $p < .001$

Simple mediation analyses are illustrated in Table 4.17 for the association between vulnerability to substance abuse and its subdomains as the outcome variable and childhood traumatic experiences (neglect as a predictor variable), with emotional dysregulation serving as a mediating variable. According to the findings of a simple mediation study, neglect has an indirect association with vulnerability to substances abuse and its sub domains through emotional dysregulation.

The results indicate that the interaction effect of vulnerability to substance abuse and neglect accounts for 18% of the variance ($\Delta R^2=.18$) table 4.17. Figure 2 below illustrates that participants with neglect features reported higher levels of emotional dysregulation ($a = 10.72$, $p < .01$), and that high levels of emotional dysregulation were associated to vulnerability to substance abuse ($b = .22$, $p < .01$). Based on 5,000 bootstrap samples, a 95% CI indicated the significant (1.74 to 3.09) indirect effect ($ab = 2.37$).

The results show that for negative thinking, neglect explains 3 % of the variance ($\Delta R^2=.03$). Figure 3 demonstrates a strong relationship between high emotional dysregulation and the negative thinking ($b=.07$, $p<.01$) sub-domain of vulnerability to substance abuse. Using 5,000 bootstrap samples, a 95% CI showed that the indirect impact ($c = .39$) was significant (.15 to .63).

Moreover, the interaction effect of neglect indicated an 11% variance ($\Delta R^2=.11$) in the anxiety sensitivity. The results indicated that anxiety sensitivity was finally associated with emotional dysregulation ($b=.03$, $p<.05$) (figure 4). A 95% CI based on 5,000 bootstrap samples showed that the indirect effect ($c = .69$) was significant (.46 to .96).

The findings further indicate that the interaction effect of impulsivity and neglect is 1% ($\Delta R^2=.18$) and that it is strongly associated to emotional dysregulation ($b=.08$, $p<.01$) (as seen in figure 5). Based on 5,000 bootstrap samples (.65 to 1.14), the indirect impact ($c=.89$) was shown to be significant with a 95% CI.

The results further demonstrated that the interaction effect of neglect and sensation seeking in the preceding table explained 2% of the variance ($\Delta R^2=.02$). Higher sensation seeking was subsequently associated with high levels of emotional dysregulation ($b=.04$, $p<.01$), as seen in Figure 6 below. Using 5,000 bootstrap samples, a 95% CI showed that the indirect impact ($c=.40$) was significant (.16 to .68).

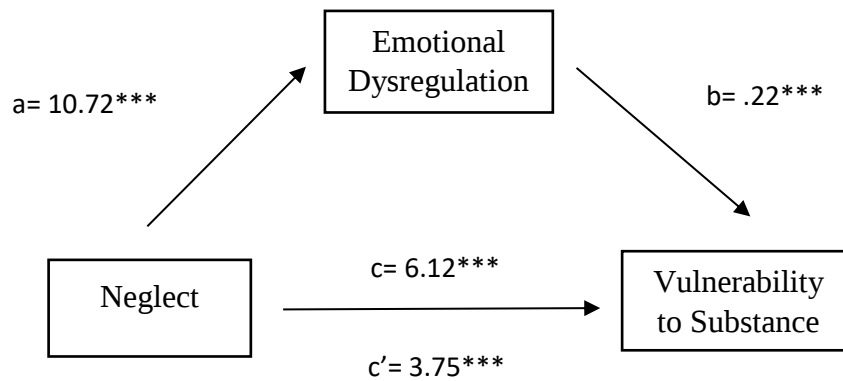


Figure 2. Mediation by Emotional Dysregulation on the relationship between Childhood traumatic experience (neglect) and vulnerability to substance abuse

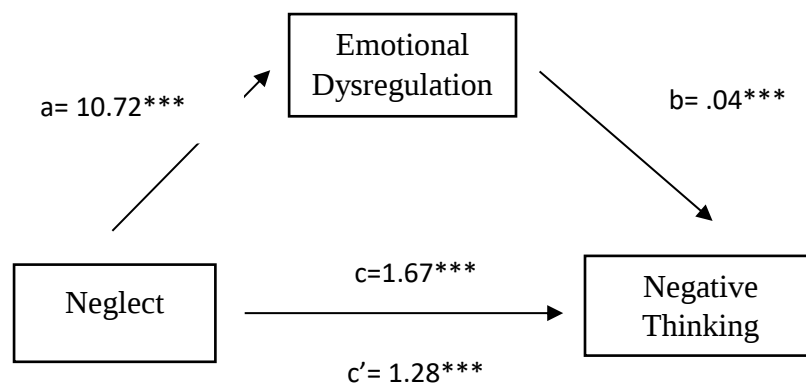


Figure 3. Mediation by Emotional Dysregulation on the relationship between neglect and negative thinking

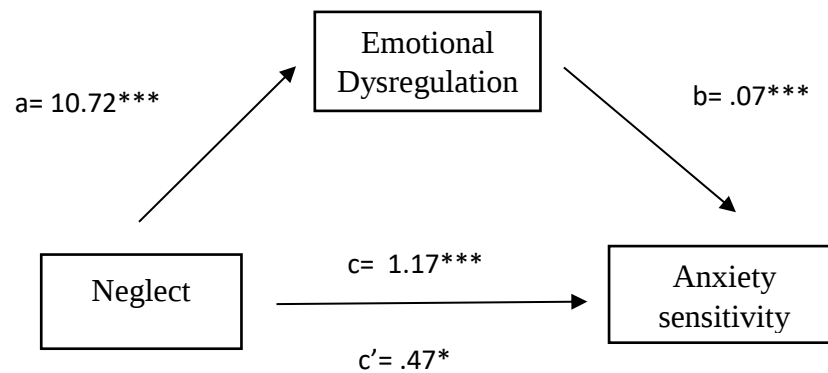


Figure 4. Mediation by Emotional Dysregulation on the relationship between neglect and anxiety sensitivity

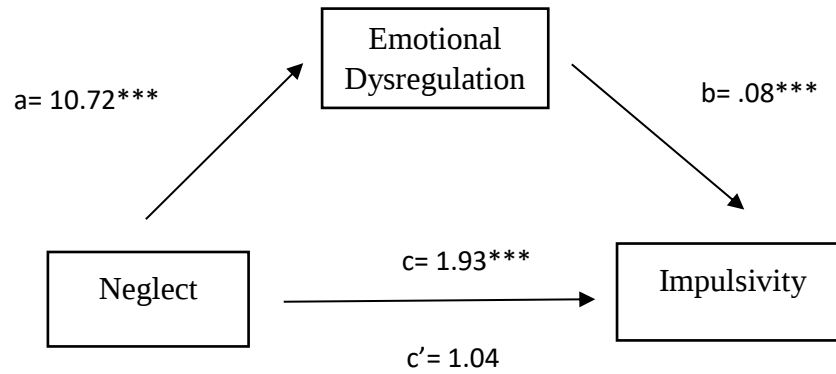


Figure 5. Mediation by Emotional Dysregulation on the relationship between neglect and impulsivity

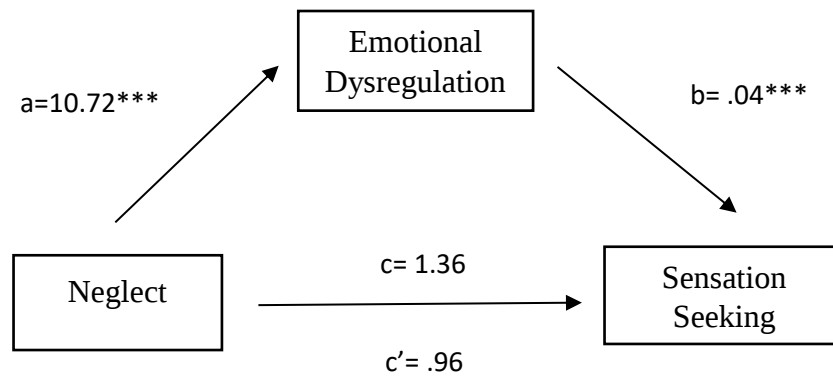


Figure 6. Mediation by Emotional Dysregulation on the relationship between neglect and sensation seeking

Table 4.18

Simple Mediation of the Impact of Childhood Traumatic Experiences (Family Psychological Distress) and Vulnerability to Substance Abuse by Emotional Dysregulation (N=400)

Predictors	Vulnerability to Substance Abuse				Negative Thinking			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	54.09	42.28***	40.64	43.91	13.04***	10.63***	9.77	11.49
Family Psychological Distress	4.13***	1.92**	.73	3.12	.93**	.48	-.15	1.11
Emotional Dysregulation		.28***	.24	.32		.06***	.04	.08
Indirect effect		2.21	1.59	2.98		.45	.27	.69
R2	.07	.42	$\Delta R^2 = .35$		.02	.09	$\Delta R^2 = .07$	
F	31.02	142.44			8.28	22.02		
Predictors	Anxiety Sensitivity				Impulsivity			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	12.64***	9.57***	8.83	10.31	12.21***	8.05***	7.39	8.72
Family Psychological Distress	.79**	.22	-.32	.76	1.38***	.60**	.12	1.09
Emotional Dysregulation		.07***	.06	.09		.09***	.08	.11
Indirect effect		.57	.39	.83		.78	.56	1.07
R2	.02	.18	$\Delta R^2 = .16$		.06	.35	$\Delta R^2 = .29$	
F	7.45	43.02			23.23	105.13		
Predictors	Sensation Seeking							
	Model 1	Model 2	95% CL					
	B	B	LL	UL				
Constant	16.19***	14.02***	13.09	14.95				
Family Psychological Distress	1.02**	.61	-.07	1.29				
Emotional Dysregulation		.05***	.03	.07				
Indirect effect		.41	.22	.64				
R2	.02	.08	$\Delta R^2 = .06$					
F	8.75	16.99						

* $p < .05$, ** $p < .01$, *** $p < .001$

Tables 4.18 provide basic mediation analyses for the relationship between childhood traumatic experiences (family psychological distress as a predictor variable) and vulnerability to substance abuse and its sub-domains as an dependent variable, with emotional dysregulation acting as a mediator. A simple mediation analysis found that emotional dysregulation indirectly links family psychological distress to vulnerability to substance abuse and its subdomains.

In the preceding table, the interaction effect of family psychological distress and vulnerability to substance abuse accounts for 35% of the variance ($\Delta R^2=.35$), as shown in table 4.18. Emotional dysregulation was higher among participants with family psychological distress tendencies ($a = 7.93, p = .01$), and Figure 7 shows that significant emotional dysregulation was later linked to greater vulnerability to substance abuse ($b = .28, p < .01$). A 95% CI showed that the indirect impact ($ab = 2.21$), based on 5,000 bootstrap samples, was significant (1.59 to 2.98).

Additionally, the results showed that family psychological distress is responsible for for 7% of the variance in the negative thinking ($\Delta R^2=.07$). Figure 8 shows that the component of vulnerability to substance abuse negative thinking was significantly associated with high levels of emotional dysregulation ($b=.06, p<.01$). A 95% CI based on 5,000 bootstrap samples showed that the indirect impact ($c = .45$) was significant (.27 to .69).

The interaction effect of family psychological distress showed a 16% variation ($\Delta R^2=.16$) in the anxiety sensitivity component. Figure 9 illustrates the results, which showed that anxiety sensitivity was eventually linked to emotional dysregulation ($b=.07$). The indirect impact ($c = .57$) was shown to be significant (.39 to .83) using a 95% CI based on 5,000 bootstrap samples.

Additionally, the findings show that the interaction impact of family psychological distress and impulsivity, which is strongly linked (as figure 10 shows) with emotional dysregulation ($b=.09$, $p<.01$), is responsible for for 29% of the variance ($\Delta R^2=.29$). A 95% CI based on 5,000 bootstrap samples showed that the indirect influence ($c=.78$) was significant (.56 to 1.07).

Furthermore, the data above showed that the interaction impact of family psychological distress and sensation seeking described 6% of the variance ($\Delta R^2=.06$). High levels of emotional dysregulation were later linked to sensation seeking ($b=.05$, $p<.01$), as seen in Figure 11. A 95% confidence range based on 5,000 bootstrap samples showed that the indirect impact ($c=.05$) was significant (.22 to .64).

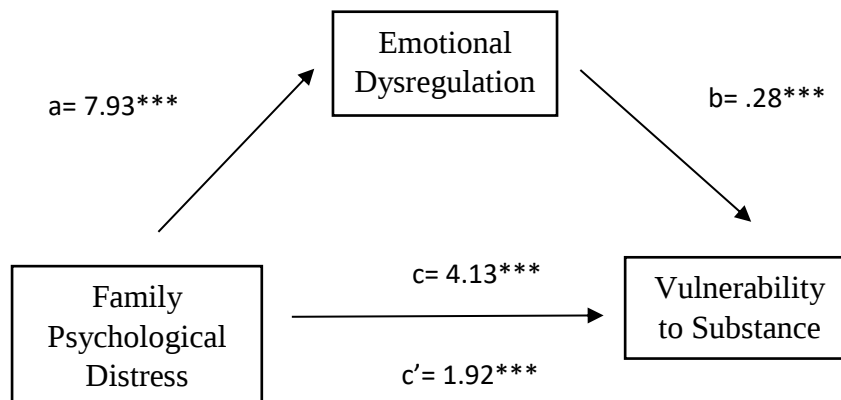


Figure 7. Mediation by Emotional Dysregulation on the association between family psychological distress and vulnerability to substance abuse

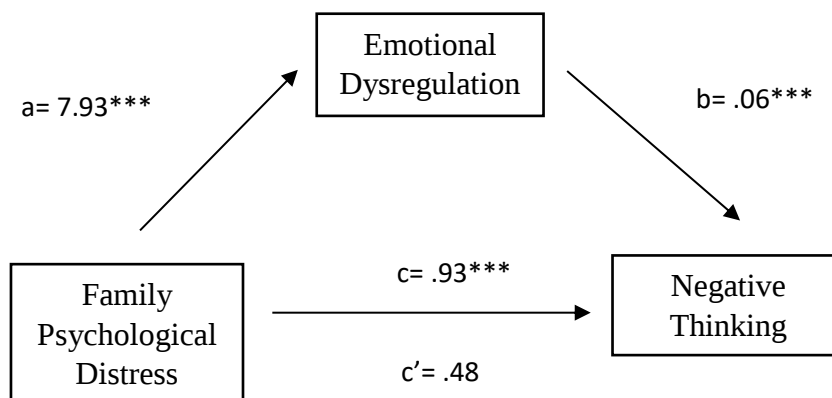


Figure 8. Mediation by Emotional Dysregulation on the association between family psychological distress and negative thinking

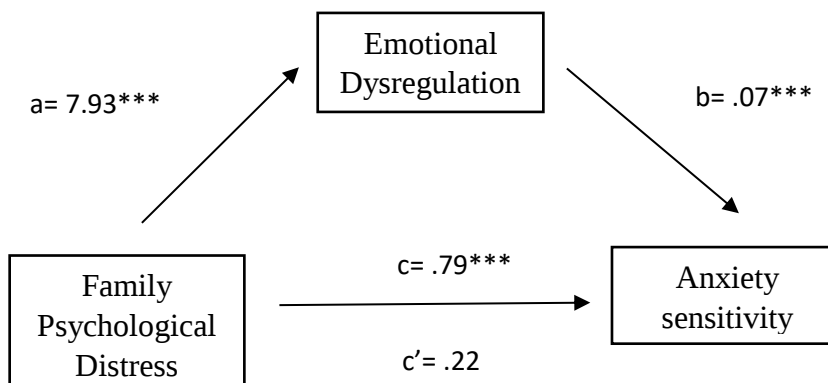


Figure 9. Mediation by Emotional Dysregulation on the association between family psychological distress and anxiety sensitivity

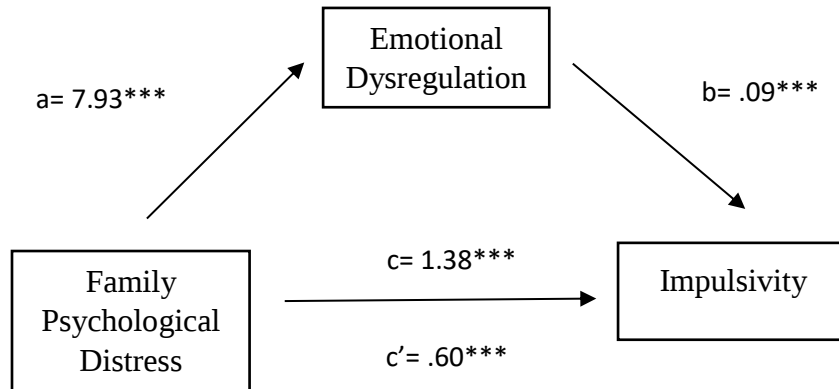


Figure 10. Mediation by Emotional Dysregulation on the association between family psychological distress and sensation impulsivity

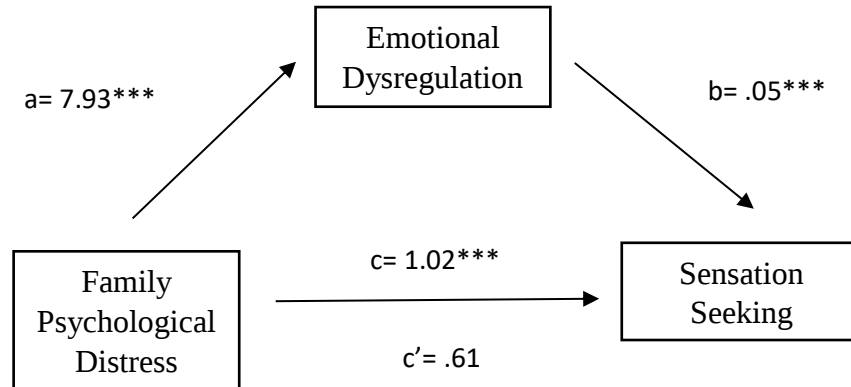


Figure 11. Mediation by Emotional Dysregulation on the association between family psychological distress and sensation seeking

Table 4.19

Simple Mediation of the impact of Childhood Traumatic Experiences (Home Violence) and Vulnerability to Substance Abuse by Emotional Dysregulation (N=400)

Predictors	Vulnerability to Substance Abuse				Negative Thinking			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	51.51***	41.91***	40.28	43.54	12.45	10.54***	9.68	11.39
Home Violence	2.37***	.71*	.15	1.26	.54***	.21	-.083	.50
Emotional Dysregulation		.27***	.23	.31		.05***	.03	.08
Indirect effect		1.66	1.23	2.12		.33	.17	.51
R2	.13	.41	$\Delta R^2 = .28$		.04	.09	$\Delta R^2 = .05$	
F	57.19	139.25			14.99	21.86		
Predictors	Anxiety Sensitivity				Impulsivity			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	12.07***	9.53***	8.79	10.27	11.44	7.94***	7.29	8.61
Home Violence	.51***	.07	-.18	.32	.72***	.12	-.11	.34
Emotional Dysregulation		.07***	.06	.09		.09***	.08	.12
Indirect effect		.44	.29	.59		.60	.45	.77
R2	.04	.18	$\Delta R^2 = .14$		.08	.34	$\Delta R^2 = .26$	
F	16.62	42.82			34.25	101.36		
Predictors	Sensation Seeking							
	Model 1	Model 2	95% CL					
	B	B	LL	UL				
Constant	15.55	13.89***	12.97	14.82				
Home Violence	.59***	.31	-.01	.62				
Emotional Dysregulation		.05***	.03	.07				
Indirect effect		.29	.14	.45				
R2	.04	.08	$\Delta R^2 = .04$					
F	16.02	17.29						

* $p < .05$, ** $p < .01$, *** $p < .001$

Tables 4.19 show simple mediation analyses for the association between childhood traumatic experiences (home violence as a predictor variable) and vulnerability to substance abuse and its sub-domains as the dependent variable, whereas emotional dysregulation is a mediators. According to the results of a simple mediation analysis, home violence is indirectly linked to vulnerability to substance abuse and its sub-domains through the association with emotional dysregulation.

Findings in the above table reveal that 28% variance ($\Delta R^2 = .28$) is described by the interaction effect of home violence and vulnerability to substance abuse. Figure 12 below illustrates that individuals with home violence traits reported higher levels of emotional dysregulation ($a = 6.10$, $p < .01$), and that high levels of emotional dysregulation were linked to vulnerability to substance abuse ($b = .27$, $p < .01$). Using 5,000 bootstrap samples, a 95% CI showed that the indirect impact ($ab = 1.66$) was significant (1.23 to 2.12).

The findings also showed that for negative thinking, home violence explains 5 % of the variance ($\Delta R^2 = .05$). Figure 13 demonstrates a strong relationship between high emotional dysregulation and the negative thinking ($b = .05$, $p < .01$) sub-domain of vulnerability to substance abuse. Using 5,000 bootstrap samples, a 95% CI showed that the indirect impact ($c = .33$) was significant (.17 to .51).

The anxiety sensitivity dimension also showed a 14% variance ($\Delta R^2 = .14$) by the interaction impact of home violence. The results indicated that emotional dysregulation was ultimately associated with anxiety sensitivity ($b = .07$, $p < .05$), as seen in figure 14. A 95% confidence range based on 5,000 bootstrap samples showed that the indirect influence ($c = .44$) was substantial (.29 to .59).

The findings also show that 26 % variance ($\Delta R^2=.26$) is present by the interaction impact of home violence and impulsivity that is significantly associated (as shown in figure 15) by emotional dysregulation ($b=.09$, $p<.01$). The indirect impact ($c=.60$) was shown to be significant, based on 5,000 bootstrap samples (.45 to .77) with a 95% confidence range.

Results in the above table also showed that a 4% variance ($\Delta R^2=.04$) was described by the interaction impact of home violence and sensation seeking. High emotional dysregulation was then linked to increased sensation seeking ($b=.05$, $p<.01$), as seen in Figure 16 below. Using 5,000 bootstrap samples, a 95% CI showed that the indirect impact ($c=.29$) was significant (.14 to .45).

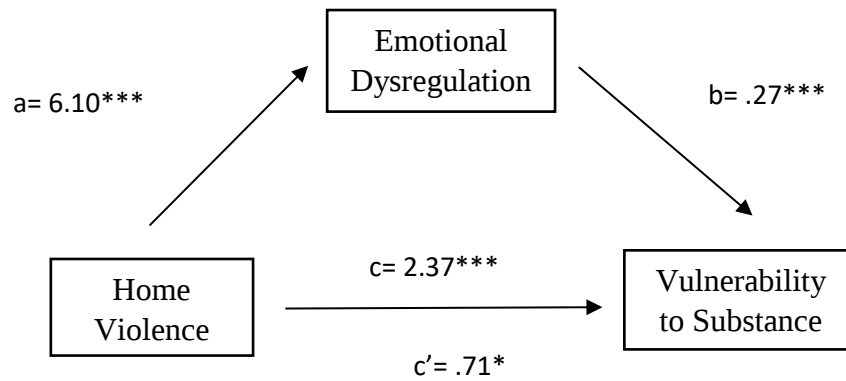


Figure 12. Mediation by Emotional Dysregulation on the association between home violence and vulnerability to substance abuse

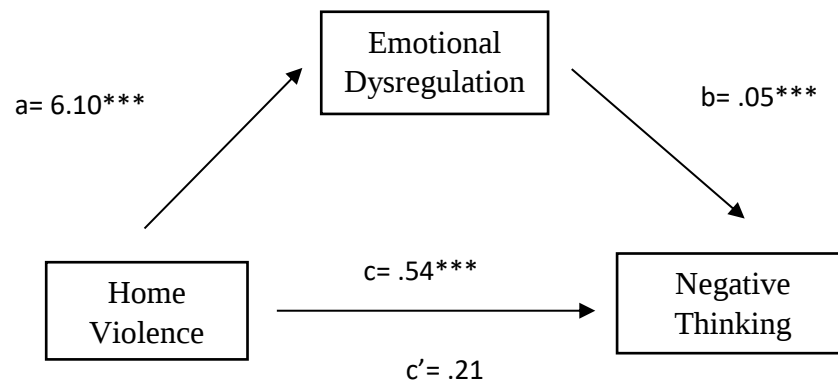


Figure 13. Mediation by Emotional Dysregulation on the association between home violence and negative thinking

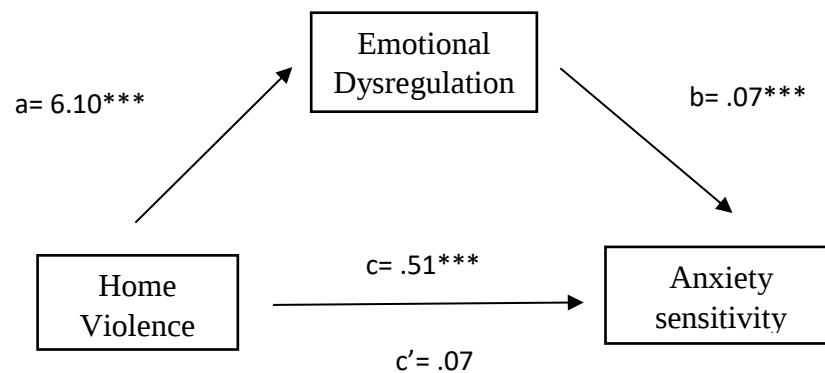


Figure 14. Mediation by Emotional Dysregulation on the association between home violence and anxiety sensitivity

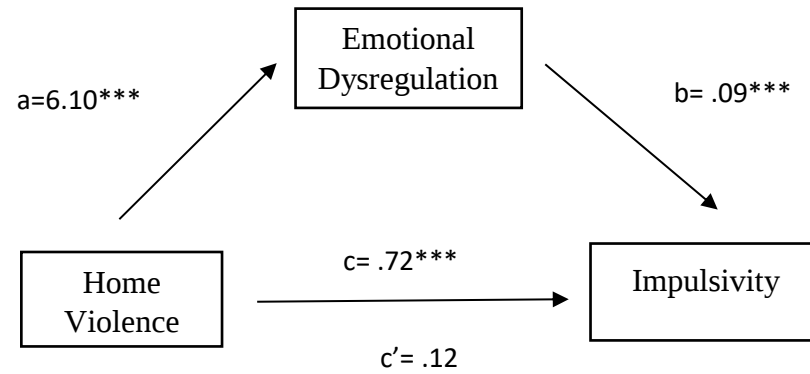


Figure 15. Mediation by Emotional Dysregulation on the association between home violence and impulsivity

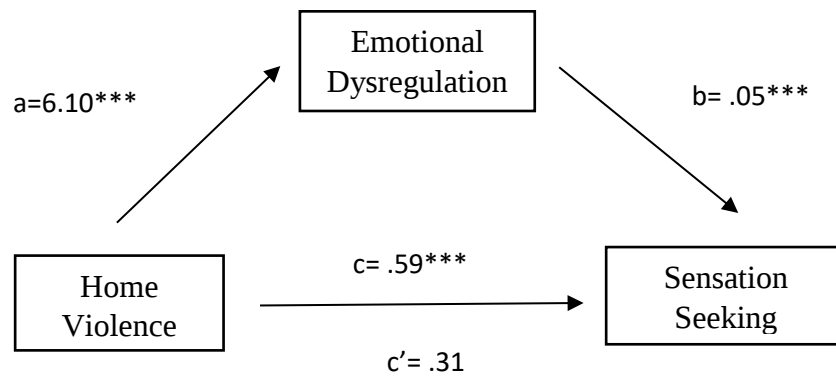


Figure 16. Mediation by Emotional Dysregulation on the association between home violence and sensation seeking

Table 4.20

Simple Mediation of the Impact of Childhood Traumatic Experiences (Community Violence) and Vulnerability to Substance Abuse by Emotional Dysregulation (N=400)

Predictors	Vulnerability to Substance Abuse				Model 1	Negative Thinking		
	Model 1	Model 2	95% CL			Model 2	95% CL	
	B	B	LL	UL		B	B	LL
Constant	49.89***	43.43 ***	41.94	44.91	12.04***	10.96***	10.10	11.81
Community Violence	5.17***	3.39***	2.75	4.05	1.23***	.93***	.56	1.31
Emotional Dysregulation		.19***	.15	.22		.03***	.01	.05
Indirect effect		1.77	1.27	2.34		.29	.06	.53
R2	.41	.53	ΔR²= .12		.13	.15	ΔR²= .02	
F	280.73	222.64			59.00	34.19		
Predictors		Anxiety Sensitivity					Impulsivity	
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL
Constant	11.79***	9.74***	8.99	10.48	10.91***	8.34***	7.70	8.98
Community Violence	1.03***	.47**	.14	.79	1.61***	.91***	.63	1.19
Emotional Dysregulation		.06***	.04	.08		.07***	.06	.09
Indirect effect		.57	.35	.79		.70	.49	.92
R2	.11	.19	ΔR²= .08		.27	.39	ΔR²= .12	
F	50.66	47.48			150.26	130.98		
Predictors		Sensation Seeking						
	Model 1	Model 2	95% CL					
	B	B	LL	UL				
Constant	15.15***	14.39***	13.48	15.30				
Community Violence	1.29***	1.09***	.69	1.49				
Emotional Dysregulation		.02	-.00	.045				
Indirect effect		.21	-.05	.48				
R2	.13	.14	ΔR²= .01					
F	57.833	30.86						

* $p < .05$, ** $p < .01$, *** $p < .001$

Tables 4.20 provide basic mediation analyses for the relationship between childhood traumatic experiences (community violence as a predictor variable) and vulnerability to substance abuse and its sub-domains as a dependent variable, with emotional dysregulation acting as a mediator. According to the results of a simple mediation analysis, community violence is indirectly linked to vulnerability to substance abuse and its sub-domains through the association with emotional dysregulation.

Table 4.20 reveals that the interaction impact of community violence and vulnerability to substance abuse in the preceding table describes 12% of the variance ($\Delta R^2=.12$). As seen in Figure 17, individuals with a tendency toward community violence also reported higher levels of emotional dysregulation ($a = 9.49, p = .01$), and these levels were later linked to greater vulnerability to substance abuse ($b = .19, p < .01$). A 95% CI based on 5,000 bootstrap samples showed that the indirect effect ($ab = 1.77$) was significant (1.27 to 2.34).

Additionally, the findings showed that community violence is responsible for 2% of the variance in the negative thinking ($\Delta R^2=.02$). High levels of emotional dysregulation were significantly associated with negative, the component of vulnerability to substance abuse ($b=.03, p<.01$), as shown in Figure 18. The indirect effect ($c = .29$) was significant (.06 to .53) according to a 95% CI based on 5,000 bootstrap samples.

Furthermore, the interaction effect of community violence showed a 8% variation ($\Delta R^2=.08$) in the anxiety sensitivity component. The results showed that emotional dysregulation was eventually linked to anxiety sensitivity ($b=.06$), as seen in figure 19. The indirect impact ($c = .57$) was shown to be significant (.35 to .79) using a 95% CI based on 5,000 bootstrap samples.

Additionally, the results show that the interaction impact of community violence and impulsivity, which is closely related (as shown in figure 20) with emotional dysregulation ($b=.07$, $p<.01$), accounts for 12% of the variance ($\Delta R^2=.12$). A 95% confidence range based on 5,000 bootstrap samples showed that the indirect influence ($c=.70$) was significant (.49 to .92).

Above data showed that the interaction impact of community violence and sensation seeking described 1% of the variance ($\Delta R^2=.01$). High levels of emotional dysregulation was later linked to sensation seeking ($b=.02$), as seen in Figure 21. A 95% CI based on 5,000 bootstrap samples showed that the indirect influence ($c=.21$) was not significant (-.05 to .48).

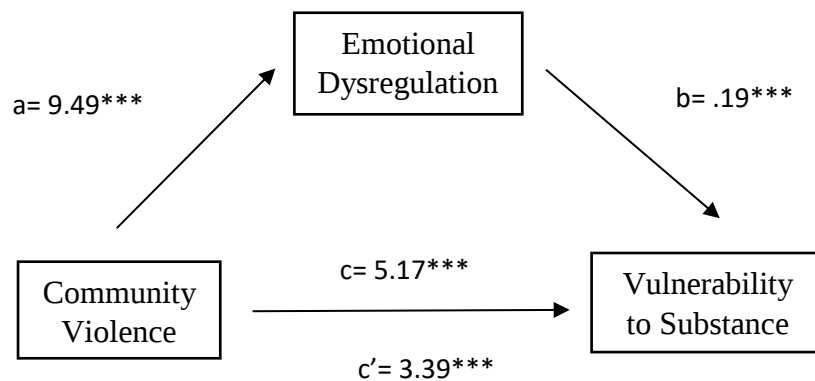


Figure 17. Mediation by Emotional Dysregulation on the association between community violence and vulnerability to substance abuse

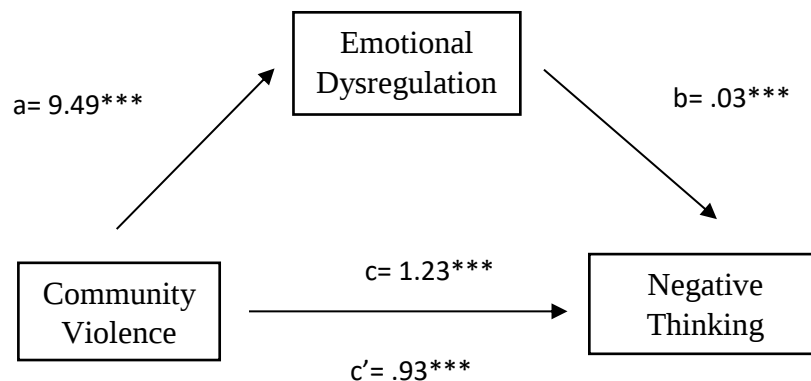


Figure 18. Mediation by Emotional Dysregulation on the association between community violence and negative thinking

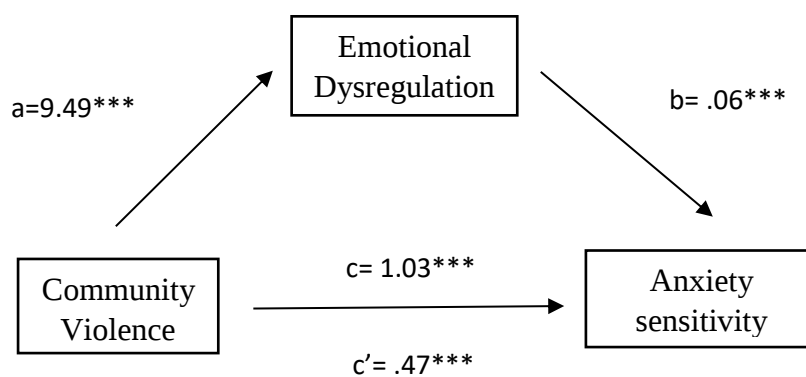


Figure 19. Mediation by Emotional Dysregulation on the association between community violence and anxiety sensitivity

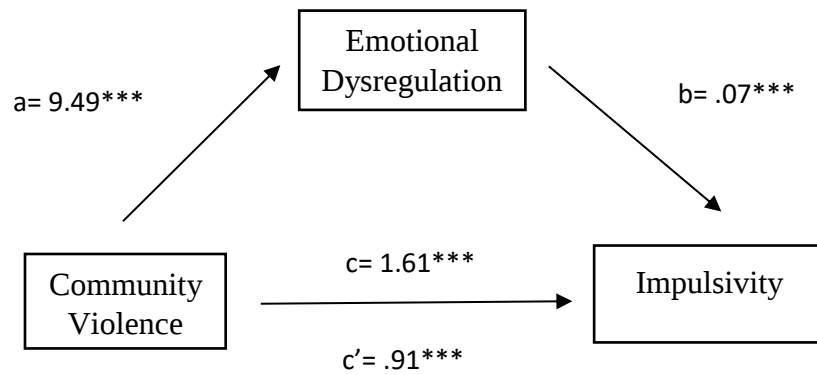


Figure 20. Mediation by Emotional Dysregulation on the association between community violence and impulsivity

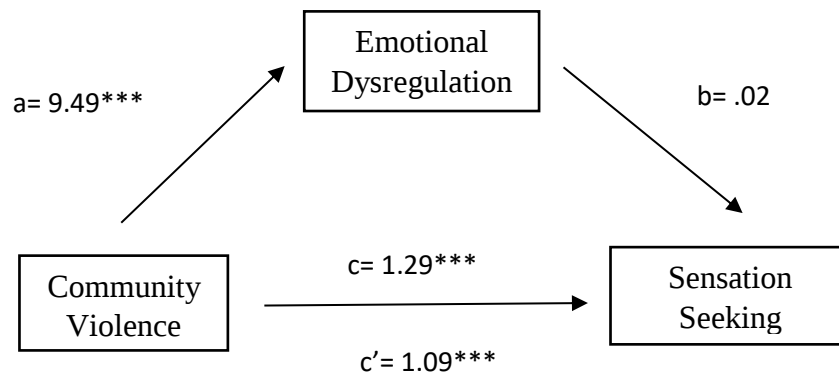


Figure 21. Mediation by Emotional Dysregulation on the association between community violence and sensation seeking

4.6 Moderation Analysis

To examine the role of future orientation as moderator between childhood traumatic experiences and vulnerability to substance abuse, The Andrew Hayes Process Macro Model 1 was applied using 5000 bootstrapped samples and a 95% confidence interval. Only the significant findings, together with the relevant justifications and a mod graph, have been presented below

Table 4.21

Moderation of the Relationship Between Childhood Traumatic Experiences and Vulnerability to Substance Abuse by Future Orientation (N = 400)

Predictors	Vulnerability to substance abuse					
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
					<i>LL</i>	<i>UL</i>
Constant	54.18	.329	164.27	.000	53.53	54.83
Childhood traumatic experiences	2.64	.19	14.14	.000	2.27	3.01
Future orientation (Moderator)	-.09	.04	-2.24	.026	-.18	-.01
Childhood traumatic experiences × Future orientation	-.05	.02	-2.45	.015	-.09	-.01
<i>R</i> ²	.55					
<i>F</i>	6.00					
ΔR^2	.01					

****p*<.001, ***p*<.01, **p*<.05

Table 4.21 presents a simple moderation analysis of the relationship between vulnerability to substance abuse as the outcome variable and childhood traumatic experiences (predictor variable), with future orientation acting as a moderator. The moderation of future orientation with a variance of 55% between vulnerability to substance abuse and childhood traumatic experiences is explained by the interaction value (*B*=-.05, *t*=-2.45, *p*<.05).

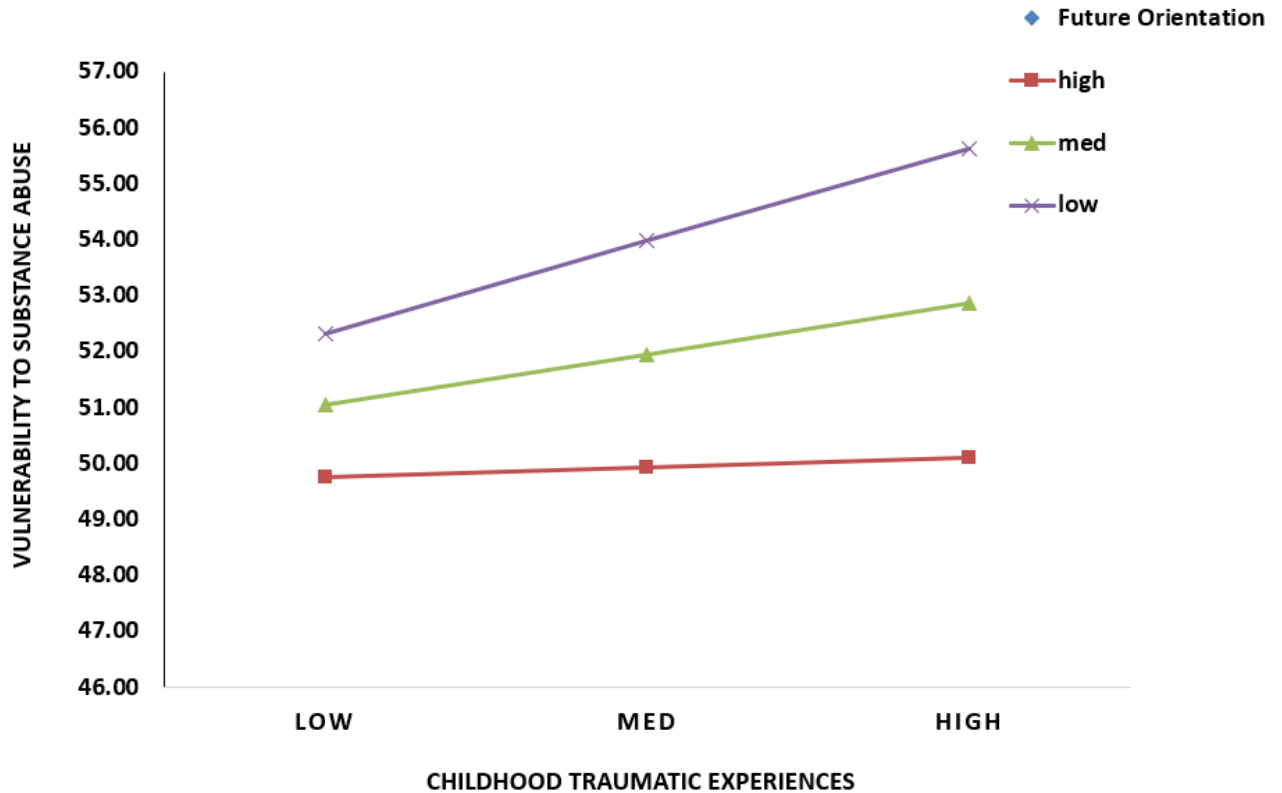


Figure 22. Moderation by Future Orientation on the relationship between Childhood Traumatic Experiences and Vulnerability to Substance Abuse among university students.

The mod graph (figure 22) illustrates the results of moderation, which show that future orientation (high, medium, and low levels) mitigates the association between vulnerability to substance abuse and early traumatic events. High future orientation has been found to reduce the impact of childhood traumatic experiences on vulnerability to substance abuse

Table 4.22

Moderation of the Relationship Between Childhood Traumatic Experiences (Neglect) and Vulnerability to Substance Abuse by Future Orientation (N = 400)

Predictors	Vulnerability to substance abuse					
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
					<i>LL</i>	<i>UL</i>
Constant	54.35	.32	168.08	.000	53.72	54.99
Neglect	2.87	.47	6.17	.000	1.96	3.79
Future orientation	-.43	.04	-10.59	.000	-.51	-.35
(Moderator)						
Neglect × Future orientation	-.16	.06	-2.76	.006	-.27	-.05
<i>R</i> ²	.39					
<i>F</i>	7.59					
ΔR^2	.01					

****p*<.001, ***p*<.01, **p*<.05

Simple moderation analyses are shown in table 4.22 for the relationship between vulnerability for substance abuse as the outcome variable and childhood traumatic experiences (neglect as a predictor variable), with future orientation serving as a moderator. Interaction term value (*B*= -.16, *t*= -2.76, *p*< .01) describes moderation of future orientation with variance of 39% among neglect and vulnerability to substance abuse.

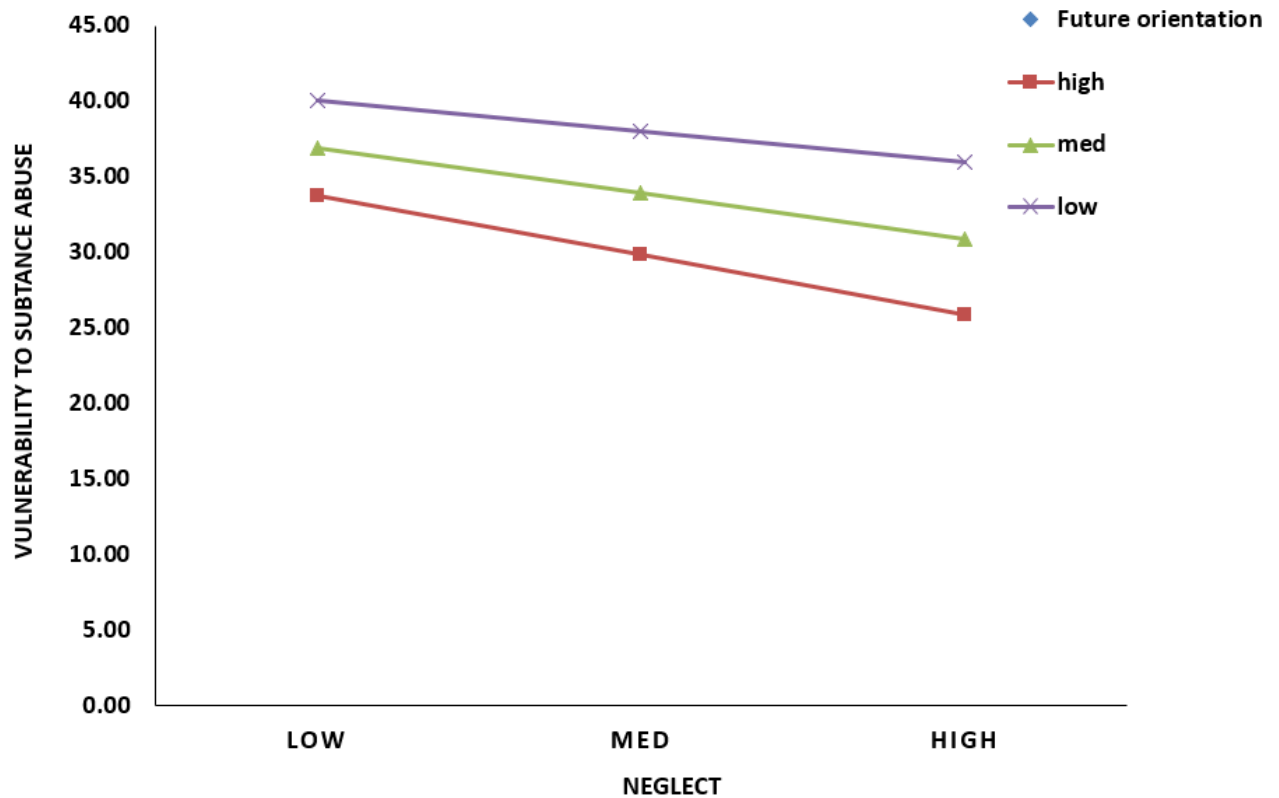


Figure 23. Moderation by Future Orientation on the relationship between Neglect (domain of Childhood Traumatic Experiences) and Vulnerability to Substance Abuse among university students.

The mod graph (figure 23) provides further context for the moderation table findings, which shows that future orientation strongly moderates the connection between neglect and vulnerability to substance abuse among university students. The graph indicates that the effect of neglect on vulnerability to substance abuse was mitigated by moderator future orientation (i.e., high, medium, and low levels); the more future orientation, the less the impact of childhood traumatic experiences on substance abuse vulnerability.

Table 4.23

Moderation of the Relationship between Childhood Traumatic Experiences (Neglect) and Sensation Seeking by Future Orientation (N = 400)

Predictors	Sensation seeking					
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
					<i>LL</i>	<i>UL</i>
Constant	16.18	.18	89.16	.000	15.82	16.53
Neglect	.42	.26	1.59	.113	-.09	.93
Future orientation	-.11	.02	-4.95	.000	-.16	-.07
(Moderator)						
Neglect × Future orientation	-.09	.03	-2.66	.008	-.15	-.02
<i>R</i> ²	.11					
<i>F</i>	7.06					
ΔR^2	.02					

****p*<.001, ***p*<.01, **p*<.05

Table 4.23 presents simple moderation analysis for the relationship between sensation seeking of vulnerability to substance abuse as the outcome variable and childhood traumatic experiences (neglect as a predictor variable), while future orientation serves as a moderator. Interaction value (*B*= -.09, *t*= -2.66, *p*< .01) describes moderation of future orientation with variance of 11% among neglect and sensation seeking.

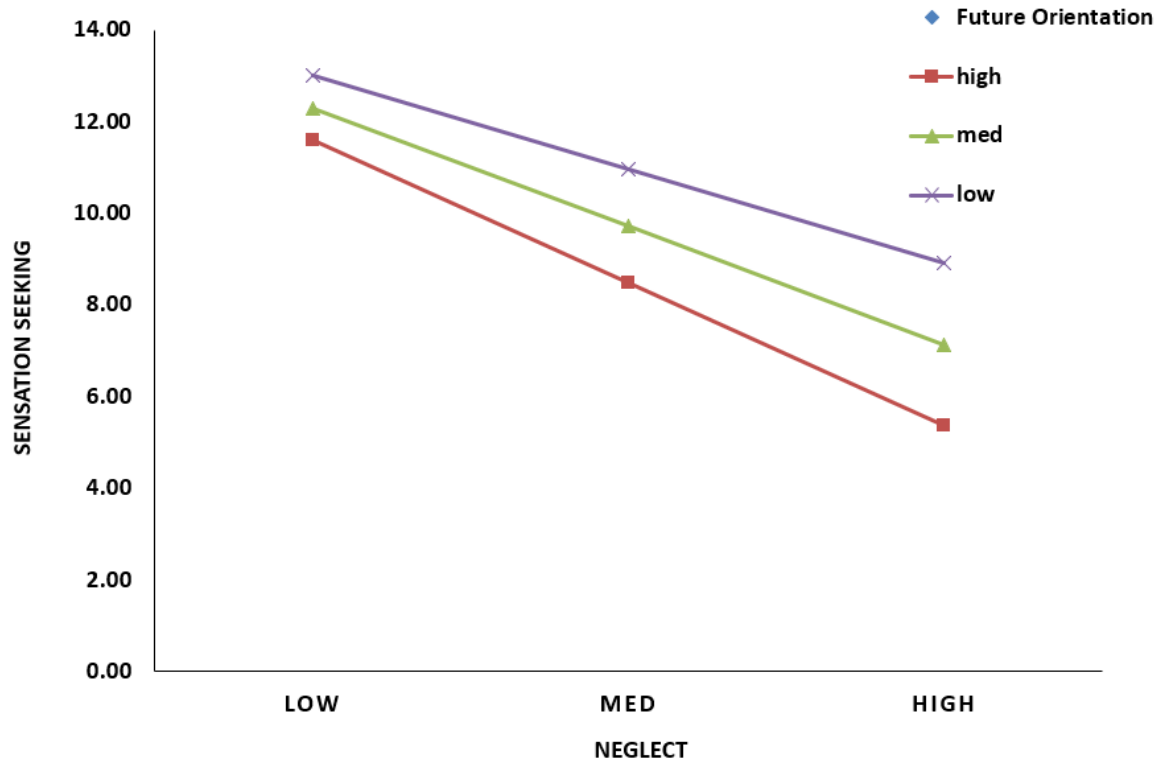


Figure 24. Moderation by Future Orientation on the relationship between Neglect (domain of Childhood Traumatic Experiences) and Sensation Seeking (domain of Vulnerability to Substance Abuse) among university students.

The graph shows that moderator future orientation significantly moderates the relationship between neglect and sensation seeking. The results of moderation, as shown by the mod graph, show that the impact of neglect on sensation seeking was lessened by future orientation (high, medium, and low levels). Thus, in university students with more future orientation, lesser will be the affect of childhood neglect on sensation seeking.

Table 4.24

Moderation of the relationship between Childhood Traumatic Experiences (community violence) and Vulnerability to Substance Abuse by Future orientation (N = 400)

Predictors	Vulnerability to Substance Abuse					
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
					<i>LL</i>	<i>UL</i>
Constant	54.01	.34	161.45	.000	53.35	54.66
community violence	3.45	.35	9.91	.000	2.77	4.14
Future orientation	-.27	.04	-6.30	.000	-.36	-.19
(Moderator)						
community violence × Future orientation	-.16	.04	-3.93	.000	-.24	-.08
<i>R</i> ²	.45					
<i>F</i>	15.43					
ΔR^2	.02					

****p*<.001, ***p*<.01, **p*<.05

Simple moderation analysis are shown in table 4.24 for the relationship between vulnerability to substance abuse as the outcome variable and childhood traumatic experiences (community violence as a predictor variable), with future orientation acting as a moderator. Interaction value (*B*= -.16, *t*= -3.93, *p*< .001) demonstrates moderation of future orientation with variance of 45% among community violence and vulnerability to substance abuse.

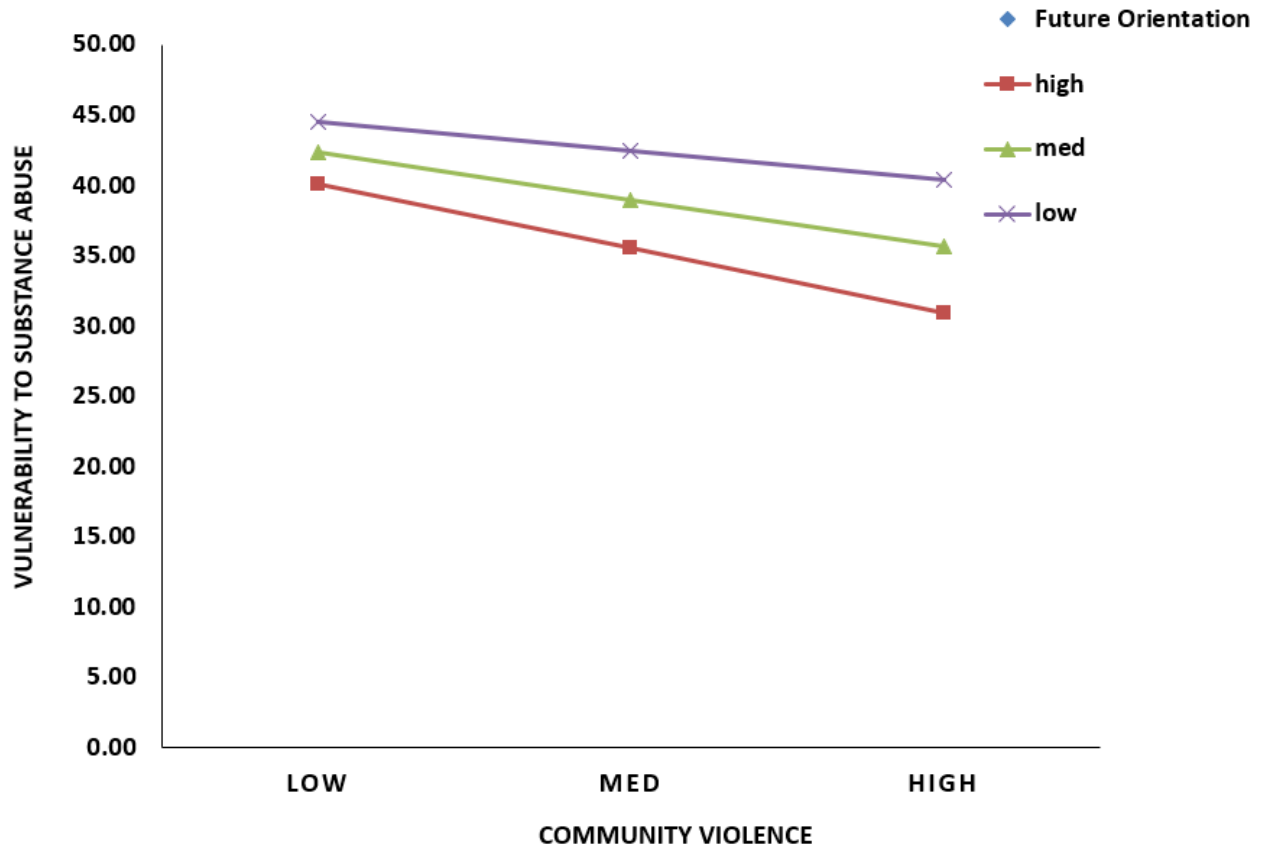


Figure 25. Moderation by Future Orientation on the relationship between Community Violence (domain of Childhood Traumatic Experiences) and Vulnerability to Substance Abuse among university students.

Outcomes of moderation elaborated through mod graph in figure 25 showed that future orientation (i.e. high, medium, low levels) weakens the positive association between community violence and vulnerability to substance abuse. It reveals that when students are more future oriented, the vulnerability of substance abuse in them is decreased despite of the exposure to community violence.

Table 4.25

Moderation of the Relationship Between Childhood Traumatic Experiences (Community Violence) and Impulsivity by Future Orientation (N = 400)

Predictors	Impulsivity					
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
					<i>LL</i>	<i>UL</i>
Constant	12.22	.15	82.57	.000	11.93	12.51
community violence	1.00	.15	6.51	.000	.70	1.31
Future orientation	-.10	.02	-5.39	.000	-.14	-.07
(Moderator)						
community violence	-.05	.02	-2.55	.011	-.08	-.01
× Future orientation						
<i>R</i> ²	.30					
<i>F</i>	6.50					
ΔR^2	.01					

****p*<.001, ***p*<.01, **p*<.05

Table 4.25 provides simple moderation analysis for the relationship between childhood traumatic experiences (community violence as a predictor variable) and impulsivity of vulnerability to substance abuse as the outcome variable, while future orientation is a moderator. Interaction value (*B*= -.05, *t*= -2.55, *p*< .01) describes moderation of future orientation with variance of 30% among community violence and impulsivity.

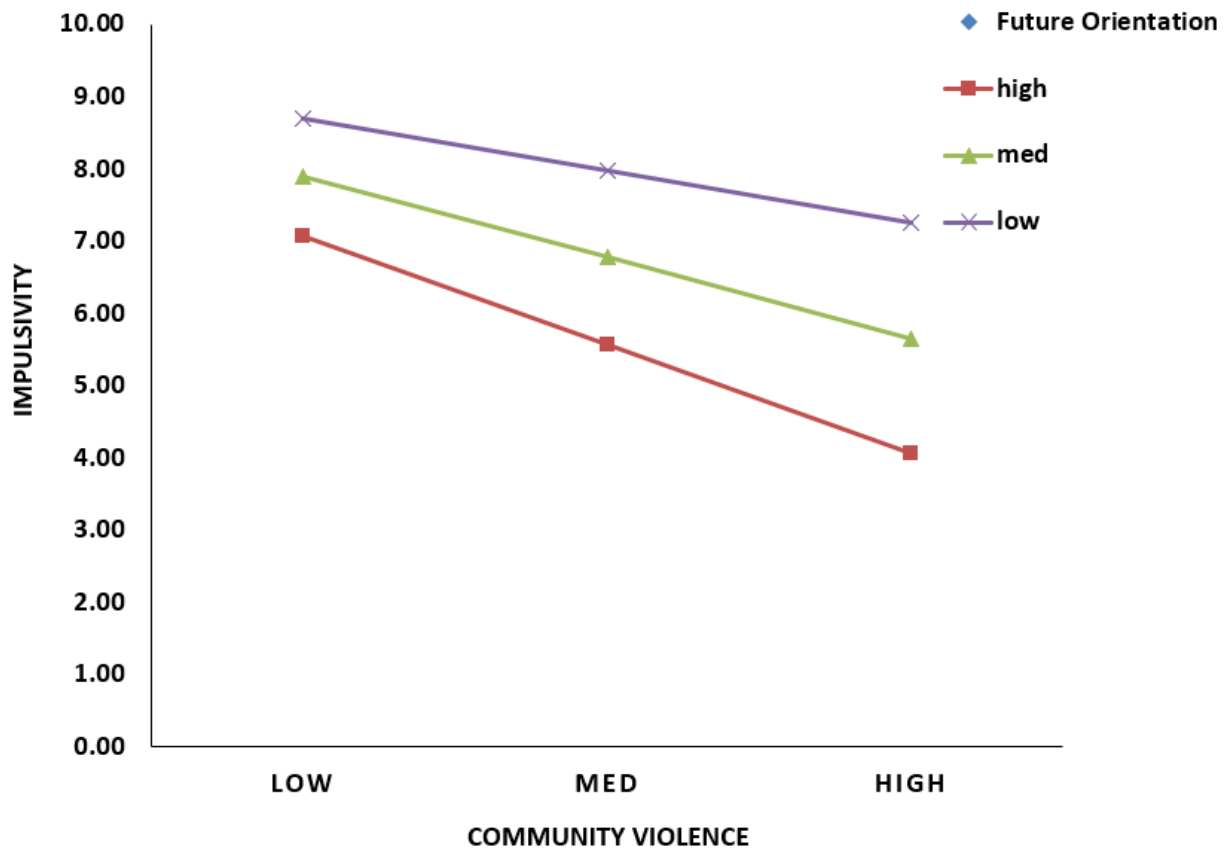


Figure 26. Moderation by Future Orientation on the relationship between Community Violence (domain of Childhood Traumatic Experiences) and Impulsivity (domain of Vulnerability to Substance Abuse) among university students.

The results of moderation, as explained by the mod graph, show that future orientation (i.e. high, medium, low levels) weakened the impact of community violence on impulsivity. Thus, university students being more future oriented, the effect of community violence on impulsivity decreases.

Table 4.26

Moderation of the Relationship Between Childhood Traumatic Experiences (Community Violence) and Sensation Seeking by Future Orientation (N = 400)

Predictors	Sensation Seeking					
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
					<i>LL</i>	<i>UL</i>
Constant	16.15	.193	83.64	.000	15.77	16.53
community violence	1.02	.20	5.06	.000	.62	1.41
Future orientation	-.05	.025	-2.12	.034	-.10	-.00
(Moderator)						
community violence × Future orientation	-.05	.024	-2.03	.043	-.09	-.00
<i>R</i> ²	.14					
<i>F</i>	4.12					
ΔR^2	.01					

*p<.05, **p<.01, ***p<.001

Table 4.26 illustrate moderation analysis for the relationship between childhood traumatic experiences (community violence as a predictor variable) and sensation seeking of vulnerability to substance abuse as the outcome variable, while future orientation is a moderating variable. Interaction value ($B = -.05$, $t = -2.03$, $p < .05$) describes moderation of future orientation with variance of 14% among community violence and sensation seeking.

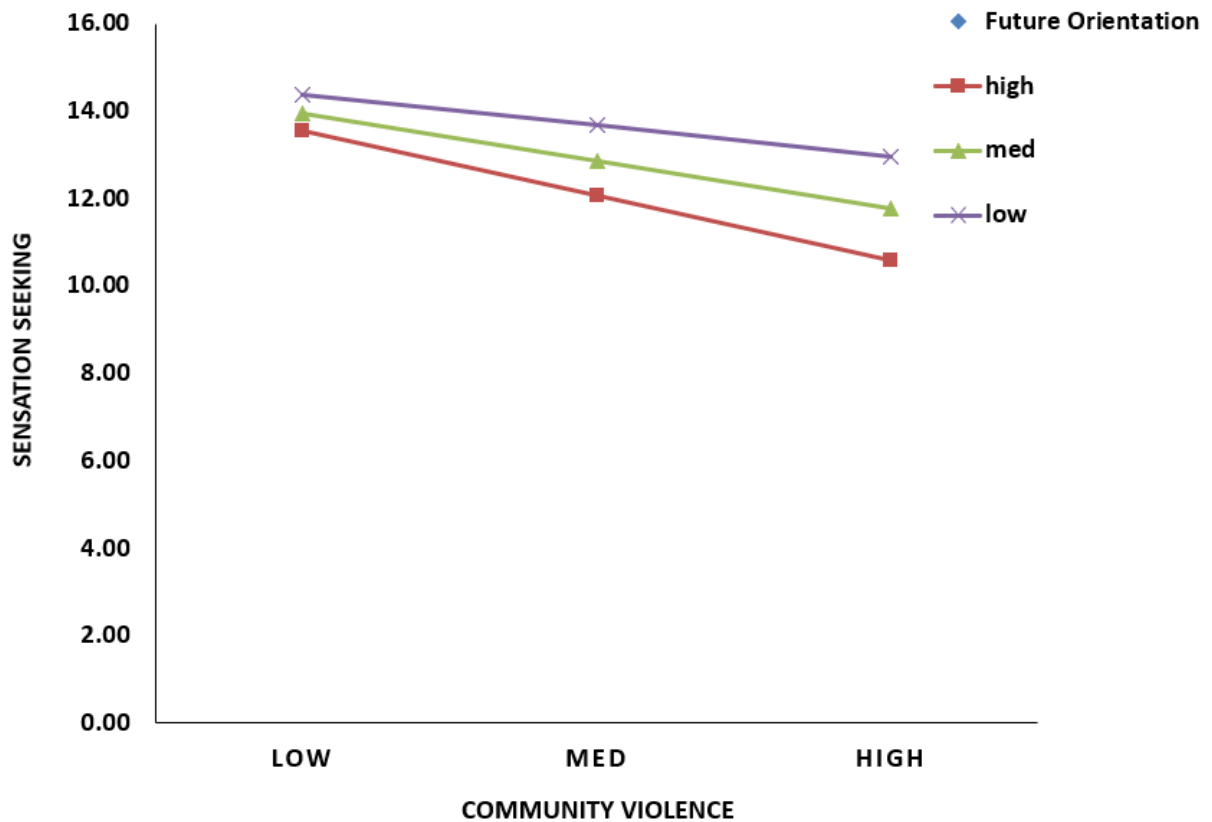


Figure 27. Moderation by Future Orientation on the relationship between Community Violence (domain of Childhood Traumatic Experiences) and Sensation Seeking (domain of Vulnerability to Substance Abuse) among university students.

The results of moderation, as explained by the mod graph, show that future orientation (i.e. high, medium, low levels) weakened the impact of community violence on sensation seeking. Thus, stronger future orientation may serve as a buffer, lowering sensation-seeking behavior, especially in high violence environments.

Chapter 5

Discussion, Conclusion, Limitations, Recommendations and Future Implications

5.1 Discussion

The main objectives of the research are to investigate how childhood trauma affects university students' vulnerability to substance abuse, as well as the moderating effects of future orientation and the mediating role of emotional dysregulation on study variables. In addition, the influence of demographic factors such as living status, family structure, gender, and socioeconomic status was also examined. To accomplish these objectives, data was gathered from young undergraduate students in Rawalpindi and Islamabad. Males and females in the sample were between the ages of 18 and 25 on average. This research was divided into two phases. The pilot study used a sample of 100 college students to assess the measures' cultural suitability and clarity of understanding, by using scales, namely Adverse Childhood Experiences International Questionnaire – Adapted Version, Substance Use Risk Profile Scale, Emotional Dysregulation Scale- Short Form and Future Orientation Scale. To accomplish the research aim, in the second phase of this study, a separate main study was conducted with 400 university students.

The objectives of the study were achieved by using ACE International Questionnaire (ACE-IQ) 12-item adapted version (WHO, 2018) that consisted of four domains namely Neglect, Home violence, Family psychological distress and Community violence. For this study, each was assessed independently. Vulnerability to substance abuse was measured using

Substance Use Risk Profile Scale (Woicik et al., 2009) that consist of 4 subscales namely Negative thinking, Impulsivity, Anxiety sensitivity and Sensation seeking. Whereas Emotional Dysregulation Scale- short form (EDS-S) (Powers et al., 2015) and Future Orientation Scale (FOS) (Steinberg et. al., 2009) were used to measure emotional dysregulation and future orientation correspondingly. The relationship between the variables is highlighted by the research conceptual model (shown in Figure 1). Therefore, it is essential to use appropriate techniques for measuring variables that a reliable, accurate, and relevant for the present research.

To determine the suitability of the scales, alpha reliability was calculated for each of the aforementioned scales. The results showed that scales' alpha coefficient reliabilities fell within an acceptable range .64-.93. Previously used in several domestic and international investigations, the alpha reliabilities were highly internally consistent and provided results that were in line with the body of existing literature (Ann et al., 2022; Charles, 2022; Elizabeth et al., 2018). Each variable's skewness and kurtosis values are found to fall between -2 and +2, which is an acceptable range (Privitera, 2011). Consequently, these factors present in the sample, produce significant correlations, and satisfy the normality assumption and additional statistical analysis.

The study of childhood traumatic experiences and their impacts has long been a central focus for developmental psychologists, social scientists, and related fields. The primary aim of the current study was the investigation of relation between childhood traumatic experiences and vulnerability to substance abuse among university students. A student's personality development is frequently significantly impacted by early life negative events, such as trauma or ongoing stress, and this can have an impact on their future tendencies and personal

development. Such events have been linked to emotional dysregulation, altered stress responses, and trouble establishing positive interpersonal interactions, according to research (Evans & Kim, 2012; Shonkoff et al., 2012). These difficulties can influence personality qualities like resilience or decreased openness, which may have an impact on professional and educational paths (Hughes et al., 2017; Metzler et al., 2017).

Interrelation of study variables

The main study, first eight hypotheses were formulated to investigate the relationship between the study variables i.e. childhood traumatic, vulnerability to substance abuse and their sub domains, emotional dysregulation and future orientation. Correlational analysis findings showed that childhood traumatic experiences i.e. neglect, home violence, family psychological distress and community violence have a positive and statistically significant correlation ($p < .01$, $p < .05$) with vulnerability to substance abuse and their sub domains as mentioned in first four hypotheses.

Several researches indicate that exposure to traumatic events throughout childhood considerably raises the likelihood of substance abuse in later life. In support of our first hypothesis study indicated that early exposure to abuse and neglect may increase the risk of engaging in persistent negative thought patterns in adulthood (Mansueto et al., 2021; Yu et al., 2022; Tanaka et al., 2006; Kaya & CecenErogul, 2016). Another study showed children raised in high-stress family environments exhibit the highest levels of negative thing and negative emotions, underscoring the detrimental effects of family stressors on psychological development (Walper et al., 2023; Magantor, 2024). Furthermore, those who domestic violence and abuse during childhood may suffer from a variety of detrimental psychological, behavioral, cognitive, and emotional effects including negative thought pattern (Callaghan et

al. 2018, Forke et al. 2019; Mansueto et al., 2021). Moreover, exposure to community violence throughout childhood has a substantial detrimental influence on children's mental health, frequently resulting in emotional disorders and negative thought patterns. (Fleckman et al., 2022; Pillay et al., 2024). In line with second hypothesis childhood neglect was also found to be positively associated with anxiety related symptoms (Ates et al., 2021; McLaughlin & Hatzenbuehler, 2009, Marshall et al., 2010). Prior researches suggest children's internalizing and externalizing issues are exacerbated by conflict and unfavorable family environment (Vidair et al., 2012 Shelton & Harold; 2008). According to Banerjee et al. (2019), childhood abuse is associated with lasting psychological consequences such as anxiety, PTSD, low self-esteem, an increased likelihood of substance addiction, and self-harming behaviors. Moreover, it has been demonstrated that young children raised in violent environments are more likely to experience anxiety, sadness, low self-esteem, and dread of being alone (Margolin & Gordis, 2000). Furthermore, anxiety sensitivity and negative thinking was also found to be positively associated with increased risk of substance abuse in young adults (Woicik et al., 2009; Krank et al., 2011; Urbán et al., 2008). This might be due to maladaptive coping approach to reduce negative affect on anxiety sensitivity and hopelessness (Lejuez et al., 2006).

The third hypothesis was based on the assumption that childhood traumatic experiences would show a positive correlation with impulsivity. Our results confirmed this, indicating a significant positive correlation, which is consistent with findings from previous studies. Higher levels of impulsivity are linked to neglect throughout childhood (Shin et al., 2016; Jin et al., 2023). Childhood trauma may impair self-control, which in turn may lead to impulsivity (Agnew et al., 2011). Research indicates a connection between family distress and increased impulsivity. Significant psychological distress within a family during childhood can contribute

to increased impulsivity in individuals because a stressful family environment can lead to poor emotional regulation, which makes impulsive behaviors more likely to occur, especially in children who may find it difficult to cope with the tension at home (Gao et al., 2024). Furthermore, other research demonstrated that psychological distress in parents is a risk factor for children to develop externalizing issues (Siegenthaler et al., 2012; Amrock & Weitzman, 2014; Martinez et al., 2009; Fortin et al. 2011). Exposure to domestic abuse during childhood is more likely to result in impulsivity and emotional issues (Wolfe et al., 2003; Rogosch & Cicchetti, 2004). Exposure to community violence is strongly linked to mental health issues in children, including disruptive behavior disorders and impulsivity (Fowler et al., 2009; Gorman-Smith et al., 2004; Youngstrom et al., 2003).

According to previous researches childhood neglect was also found to be positively associated with elevated sensation-seeking, suggesting that, like some types of childhood traumas, may lead to heightened externalizing behaviors. (van der Put et al., 2015) which support our fourth hypothesis. Studies suggests long-term stress brought on by abuse, neglect, or family disputes might cause people to turn to dangerous activities as a temporary way to cope with their bad feelings. According to our comprehensive study, the majority of children who experience domestic violence may exhibit psychiatric symptoms including sadness, externalizing behaviors, and internalizing behaviors (Martinez-Torteya et al. 2009, Fortin et al. 2011). Those who experienced physical abuse were more likely to exhibit a higher trajectory of sensation-seeking. (Sussman et al 2022). According to research, a child's early exposure to bullying and community violence have a significant impact on their later sensation-seeking behavior because these traumatic experiences can upset their sense of security and safety, which may cause them to seek out risky or exciting experiences as a coping mechanism for

their stress and anxiety. This can show up as an increased interest in thrill-seeking activities. (Brady & Donenberg, 2006; Babad et al., 2021). Exposure to trauma might cause aggressive or uncontrollable behaviors that may make engaging in high-risk behaviors more likely (Bynion et al., 2018). Studies indicates that exposure to community violence, can result in emotional and behavioral problems, such as increased sensation seeking (Agrawal et al., 2021; Guerra et al., 2003). Previous findings suggest that individuals with high impulsivity and sensation seeking traits could display more risky behaviors while also having a reduced risk perception including increased risk of substance abuse (Wojciechowski, 2021; Guberman et al., 2019; Zhang et al., 2016; Urbán et al., 2008; Weiss et al., 2015). Thus, the early life trauma exposure not only impact the development of personality traits early in the life course, but also psychological health and increased risk of engaging in substance use (Schaefer et al., 2017). This work contributes to the body of literature by showing that university students who are at high risk of exposure to substances abuse may be identified using early measurements of these personality factors, which should allow for the development of interventions to stop these exposures. This also highlights the necessity of early intervention initiatives to lessen the effects of childhood trauma. The available Literature supports the link between childhood adverse experiences, emotional dysregulation and vulnerability to substance abuse and the current study's results are likewise in accordance with previous studies.

The study also hypothesized the positive relationship between childhood traumatic experiences and emotional dysregulation. According to research childhood traumatic experiences are positively associated with increase mood related problems and substance use in late adolescence and early adulthood (Kessler et al., 2012; Kessler et al., 2005). Emotional development is crucial during infancy and childhood, and several cross-sectional and

developmental studies show that childhood abuse is a substantial risk factor for adult emotional dysregulation (Shields et al., 2001; Kim & Cicchetti, 2010; Maughan & Cicchetti, 2002; Pollak et al., 2000;). Researches showed that childhood home environment and parental behavior greatly influence a child emotional development. Children may have trouble regulating their emotions who suffered physical and emotional abuse (Christ et al., 2019; Cloitre et al., 2005; Racine & Wildes, 2015). These results are in line with other research showing that a parent's psychological distress level is linked to their children experiencing more emotional challenges (Tapp et al., 2018; Jones et al., 2015; Lieb et al., 2000). Furthermore, children and adolescents whose parents are separated or incarcerated are vulnerable to a variety of maladaptive outcomes, including aggressive and antisocial behavior, as well as disturbances in their physical and emotional development (Anda et al., 2001; Felitti et al., 1998; Murray et al., 2012; Perales et al., 2017; Tullius et al., 2022). Child fails to appropriately regulate his/her emotions and behavior in detrimental and unsupportive environment (Bariola et al., 2011; Linehan, 2014). In line with our findings previous researches showed a significant positive correlation between childhood adversity and ED (Ali & Yousaf, 2022). According to Sharma et al. (2024), those who have had more negative experiences are more likely to have trouble controlling and regulating their emotions. In another study childhood direct or indirect exposure to community violence was also found to be associated with negative psychological effects, such as externalizing and internalizing behaviors, (La Barrie et al., 2024; Buckholdt, 2015; Arseneault et al., 2010; Evans-Lacko et al., 2017; Huh et al., 2017; Miu et al., 2002; Mennin et al., 2005). These researches provide evidence to the idea that early life trauma has a substantial impact on the emergence of emotional dysregulation.

Moreover, the link between emotional dysregulation and a higher risk substance abuse is supported by research. For example, research indicates that children who exhibit emotional dysregulation and poor self-control are at a higher risk of developing drug dependency as adults (Essau et al., 2017; Parolin et al., 2017). Furthermore, emotional dysregulation was found to contribute to an increased likelihood of negative thinking (Mansueto et al., 2022) and anxiety (McLaughlin et al. 2011). Several researches have difficulty in managing emotions to addictive behaviors and impulsivity. Past studies indicate that a lack of effective emotion regulation strategies may contribute to impulsive behaviors (Selby et al., 2008; Whiteside & Lynam, 2003; Weiss et al., 2012). In another study high emotional dysregulation has been associated with increased participation in risky behaviors (Pedrini & Meloni, 2024). However, according to another study hypothesis, future orientation was found to be negatively correlated with childhood traumatic experiences and vulnerability to substance abuse. Previous studies showed maltreatment throughout childhood is negatively linked to future orientation (Mueller et al., 2023; Chainey et al., 2022). Moreover, according to another study the negative correlation found between substance use and future orientation, suggesting that people who prioritize long-term goals are less inclined to engage in risk of substance abuse (Klanjsek & Tement, 2019).

The predictive impact of study variables

Regression analysis was conducted for all study variables to determine their predictive role. Specifically, multiple regression analysis was performed for this purpose. Multiple regression analysis was conducted to examine the impact of childhood traumatic experiences on vulnerability to substance abuse and its subdomains. Regression analysis findings revealed that childhood traumatic experiences significantly predict the vulnerability to substance abuse.

A systematic review and meta-analysis revealed that a risk of substance abuse is significantly predicted by childhood maltreatment, including neglect (Rakovski et al., 2024; Yoon et al., 2023). Research indicates that there is a correlation between childhood maltreatment and increased prevalence of substance use problems in later life (Kahl et al., 2020; Capusan et al., 2021). Our results are consistent with other research demonstrating that early life exposure to trauma contribute to the development of maladaptive personality traits which increase the likelihood of substance abuse (Dube et al., 2003; Anda et al., 2006). According to Castellanos et al., 2012, several personality traits have been linked to an increased risk of substance usage including negative thinking, impulsivity, anxiety sensitivity and sensation seeking among youth (Grummitt et al., 2022). Complex interplay between social processes, environmental circumstances, and an inherent individual variability in responsiveness and self-regulation lead to the development of personality from childhood to the early years of adulthood (Xu & Krieg, 2015; Wängqvist et al., 2015; Van et al., 2010; Rutkowski et al., 2016). These personality traits may arise through exposure to childhood trauma, increase the risk for substance abuse (Grummitt et al., 2021; Lester et al., 2017). Existing literature suggests that a positive correlation between childhood trauma exposure and risk of substance use (Kevorkian et al., 2015; Lawson, Back, Hartwell, Maria, & Brady, 2013). Several researches indicates that exposure to violence prior to 18 years of age is associated with anxiety, depression, aggression, which in turn increases the risk of substance abuse (Fowler et al., 2009; Lynch, 2003; Margolin & Gordis, 2000). Childhood exposure to domestic violence and physical abuse were both predictors of adult impulsivity (Tiffany et al., 2015; McCabe et al., 2005; Low & Espelage, 2014). Another research showed early exposure to violence and other ACEs is linked to a greater tendency for sensation-seeking behaviors in emerging adulthood, highlighting its

potential role in shaping risk-prone personality traits (Babad et al., 2021). Previous literature suggested that children who are exposed to community violence experience a marked rise in anxiety-related symptoms (Boyd et al., 2008; Finkelhor et al., 2007). Numerous detrimental psychological outcomes, such as general distress, anxiety and depressive symptoms, have been repeatedly linked in research to this type of exposure (Cooley et al., 2001; Hawkins & Radcliffe, 2006). Additionally, it is linked to increased risk of drug misuse and dependency, as well as higher levels of violent or delinquent conduct (Kilpatrick et al., 2000; Ruggiero et al., 2004).

A multiple regression analysis was further carried out to assess the impact of childhood traumatic experiences on emotional dysregulation. Regression analysis findings revealed that childhood traumatic experiences significantly predict the emotional dysregulation. Previous researches showed that childhood trauma was found as a positive predictor of ED (Cloitre et al., 2009; Kulkarni et al., 2013), Which is in accordance with our findings. Emotional dysregulation arises due to brought up in invalidating environment where appropriate emotional expression is ignored, suppressed, or punished (Linehan, 1993). Previous researches showed childhood neglect has often been regarded as the most prevalent form of child maltreatment (e.g., Cecil et al., 2017; Euser et al., 2009). Neglect has a negative impact on development of emotional regulation. Studies showed, childhood neglect was found to be a strong predictor of difficulties in emotional regulation. (Alink et al., 2009;) which also align with another hypothesis of this research. One explanation for this might be because neglect hinders the development of abilities related to emotion control as well as understanding (Shipman et al., 2005; Cloitre et al., 2005; Kim & Cicchetti, 2010).

Furthermore, multiple regression analysis was carried out to assess the impact of emotional dysregulation on vulnerability to substance abuse. Regression analysis findings revealed that emotional dysregulation positively predict the vulnerability to substance abuse. According to studies substance abuse have also been found to be significantly predicted by poor emotion regulation skills (Kober & Bolling, 2014). Previous emotional dysregulation potentially a risk factor for substance use behaviors since the inability to control emotions can cause people to use drugs as a coping strategy. Additionally, maladaptive cognitive and emotional behaviors, such as elevated anxiety (McLaughlin et al., 2011) and more negative thinking (Mansueto et al., 2022), have been connected to emotional dysregulation. Numerous studies also emphasize its connection to impulsivity and addictive behaviors, indicating that those who struggle with emotion regulation are more likely act impulsively, which may lead to drug misuse (Selby et al., 2008; Whiteside & Lynam, 2003; Weiss et al., 2012). Furthermore, there is a strong connection between high emotional dysregulation and increased risky behavior (Pedrini & Meloni, 2024).

Role of emotional dysregulation as a mediator

Additionally, the present study's another hypothesis says that “emotional dysregulation will mediate the relationship between childhood traumatic experiences and vulnerability to substance abuse”. Emotion dysregulation (ED) is a characterized as a person difficulty recognizing and regulating one's emotions or as frequent emotional episodes or expressions that hinder goal-directed activity (Thompson, 2019; Espeleta et al., 2019). Our findings suggest ED significantly mediate the relationship between childhood traumatic experiences, vulnerability to substance abuse and their sub domains, which is in accordance with previous

researches (Mandavia et al., 2016; Raines et al., 2017; Tull et al., 2015). According to research, aspects of emotional dysregulation, including problem-controlling impulses, emotional ambiguity, the inability to tolerate emotional reactions, and difficulty with goal-directed conduct, are positively associated with substance-related outcomes (al’Absi et al., 2021; Bonn-Miller et al., 2008; Dvorak et al., 2014). This study has not only concentrated on different domains of childhood trauma but focuses on different personality traits associated with vulnerability to substance abuse i.e. negative thinking, impulsivity, anxiety sensitivity and sensation seeking. Results clearly demonstrated strong mediation by emotional dysregulation on the association between childhood traumatic experiences (neglect, home violence, family psychological distress and community violence) with vulnerability to substance use and align with and support another hypothesis of the study. Numerous studies have demonstrated that an emotionally dysregulated condition characterized by anger or impulsivity may increase the risk of psychopathology and engaging in dangerous behaviors such as substance use (Ammerman et al., 2015; Bjureberg et al., 2016; Mandavia et al., 2016; Wolff et al., 2020). People who experienced early trauma, like abuse or neglect, may have reduced ability to identify, comprehend, and regulate their emotions. As a result, they are more likely to drawn to maladaptive coping strategies like substance abuse to manage their emotions in hostile unsupportive, or neglectful, conflict-filled family environments (Armbruster-Genç & Basten, 2024; Ion et al., 2023; Poole et al., 2018; Khantzian, 2003; Garland et al., 2013; Jacobsen et al., 2001). Cross-sectional studies have shown that ED and childhood trauma are strongly linked to with substance related outcomes (Banducci et al., 2014; Weiss, Tull, Lavender, & Gratz, 2013). This mediation findings highlights the importance of addressing emotional dysregulation in therapeutic context.

Role of future orientation as moderator

The research also aims to investigate the role of future orientation as moderating variable in the relationship between childhood traumatic experiences and vulnerability to substance abuse. The degree to which someone considers the future, foresees potential outcomes, and makes preparations before acting is known as their future orientation (Steinberg et al., 2009). The findings revealed that future orientation weakens the positive association between childhood traumatic experiences and vulnerability to substance abuse.

Future orientation plays a significant role in shaping present behaviors by creating expectations. According to Rotter (1954), future expectancy reflects thoughts about success or performance in a specific domain based on past experiences (cited in Akman, 2002). Making plans for the future is a basic human trait that encourages accountability for present actions and shapes their course (Shmotkin & Eyal, 2003). Future orientation is also known as important predictor of an individual's ability to overcome challenging circumstances. It acts as a protective factor, which shield people from negative outcomes like drug abuse. Studies have found that even when exposed to high levels of risk, young people who have more protective factors are less vulnerable to drug abuse (Hawkins et al., 1992; Catalano et al., 1996). According to research, interventions for high-risk youth may be more successful if they have a positive outlook on the future. In line with this, studies suggest future orientation is associated with resilience in individuals with childhood trauma, develops social competence, and lowers delinquency and risk of substance use (Cui et al., 2020). People with an optimistic outlook on the future are less likely to take drugs because they are more concerned with long-term objectives and the effects of their behavior (Mazibuko & Tlale, 2014). Previous study suggests that childhood trauma, including neglect, significantly raises the risk of developing substance

addiction later in life (Schäfer et al., 2015). However, some of the risks associated with childhood trauma can be reduced by focusing on the future (Cui et al., 2020).

Differences across demographic variables

The final purpose of the study was to examine the comparison of the mean difference based on demographic variables (gender, living status, family structure and socioeconomic status) among the university students in the current study. The results clearly showed the differences in some study variables. The gender differences on all the study variables was examined by using independent sample t-test analysis. Males and females were shown to have differed mean scores for a number of variables. In light of the results, it was noted that females showed more childhood trauma, family psychological distress, home violence, emotional dysregulation and anxiety sensitivity as compared to males. In line with our study results El Mhamdi et al., 2018 found prevalence of ACE more in females than in males. Another study suggests that females are more likely to encounter ACE like home violence an emotional abuse as compared to males. (Jones et al., 2022). However, community violence a domain of ACE was found to be experiences more by males than females (Ramiro et al., 2010; Patel et al., 2007; Haahr-Pedersen et al., 2020; Baglivio & Epps, 2016). Studies also showed that women have been found to exhibit higher levels of emotion dysregulation compared to men (Anderson et al., 2016). Moreover previous studies also support the findings as females has reported more levels of anxiety as compared to males (Zafar et al., 2021; Bender et al., 2012; Beesdo-Baum & Knappe, 2012; McCauley et al., 2017; Afifi et al., 2008; Dube et al., 2005; Olff et al., 2007; Kwong et al., 2019; Castonguay-Jolin et al., 2013). Furthermore, sensation seeking was found high in males as compared to females. (Cross et al., 2013; Byrnes et al., 1999; Malmberg et al., 2010; Jurk et al., 2015; Woicik et al., 2009).

Independent sample t test was conducted to find out mean differences in family structure among nuclear and joint family system for different study variables. Results revealed significant high level among study variables childhood trauma subdomain home violence and vulnerability to substance abuse sub domain anxiety sensitivity, in nuclear family system. However non-significant results were found for future orientation, which was observed high in joint family system as compared to nuclear family system. Studies have found prevalence of physical and emotional abuse in nuclear families than joint family system (Deb & Modak, 2010; Ozbey, et al., 2018). Another study reveals that difficulty in emotional regulation was found more in nuclear family system (Suleman & Tariq, 2015). According to Sarkar et al. (2016), joint families had a decreased risk of substance abuse. Compared to nuclear families, joint families may be less likely to encounter ACEs, mental health problems and lesser risk of substance abuse due to their larger support systems and supervision (Khalid et al., 2021; Deb & Modak, 2010). Furthermore joint families support networks facilitate in planning and decisions making, which can improve ability to think ahead, hence increased future orientation (Silalahi et al., 2023).

Findings of our study shows significant mean differences among living status of university students i.e. living in hostel and living with family. Childhood traumatic experiences, emotional dysregulation and vulnerability to substance abuse and their sub domains, were found to be high in students living in hostel than those who were living with family. Existing research indicates that compared to those who live at home, hostel inhabitants are more likely to experience stress, anxiety, depression and emotional disturbances along with increased risk of substance abuse (Qureshi et al., 2022; Dasor et al., 2023; Bhattarai et al., 2017; Jawed et al., 2021; Upadhyaya, 2016; Sarfraz & Qayyum, 2020; Sarkar et al., 2018).

Moreover, increased future orientation was found in students living with family as compared to those living in hostel (Silalahi et al., 2023). Due to a lack of social networks and family support, hostel life can be stressful and impede emotional development. Also, the lack of parental supervision and increases social interactions in hostel students exacerbates the risk of substance abuse. On the other hand, those who lives with family benefits from closer family relationships, which improves emotional wellbeing (Heydarabadi et al., 2015).

To study differences in socioeconomic groups one way ANOVA was done. It has been seen that significant differences were found among various socioeconomic groups. Results indicates low socioeconomic status has high levels of childhood traumatic experiences, emotional dysregulation and vulnerability to substance abuse and its sub domains, while future orientation was found to be more in upper class. Post hoc analysis was performed after the one-way ANOVA to investigate the differences among different socioeconomic groups across the research variables. Primarily three groups were identified includes lower class, middle class and upper class. Findings explain that marked differences were found among lower middle, lower upper and middle upper class for emotional dysregulation, childhood traumatic experiences and its domains. Previous studies shows the prevalence of childhood maltreatment in low socioeconomic conditions (Bywaters et al., 2016; Harter & Harter, 2021; Metzler et al., 2017; Chung et al., 2016; Lacey et al., 2022; Mersky et al., 2021; Wade et al., 2016; Walsh et al., 2019). Socioeconomic status influences children's development through various factors like parental resources, social support and mental health (Deater-Deckard et al., 2012; Conger & Donnellan, 2007). Lower SES households often face challenges such as environmental

hardship, negative parenting, and heightened stress (Spinelli et al., 2020; Cheung et al., 2018), which can hinder emotional regulation (Garner & Mahatmya, 2015; Evans, 2013; Pérez, 2020)

Furthermore significant differences were found for vulnerability to substance abuse, negative thinking and impulsivity in lower upper and upper middle class. According to Assari and Sheikhattari (2024), a higher family SES is often linked to less impulsivity, which lowers the chance of drug use among young people. Negative thinking and impulsive behaviors are more common in low-income settings (Walsh et al., 2019; Tunney & Raybould, 2023; Zvolensky et al., 2018; Auger et al., 2010). Moreover, future orientation and its sub domains showed significant differences in lower upper and upper middle class. In line with our results previous researches shows SES is regarded as a significant effect on future direction and is acknowledged as a highly relevant environmental component in individual development (Howard et al., 2011). According to research, people with higher SES are more likely to be future oriented than people with lower SES (Corral-Verdugo et al., 2006; D'Alessio et al., 2003). People with lower SES tend to have lower levels of future orientation (Kooij et al., 2018).

5.2 Conclusion

The current research work investigated the relationship between childhood traumatic experiences and vulnerability to substance abuse in university students. This was subjected to further analysis in terms of future orientation as a moderator and emotional dysregulation as a mediator in university students. The study's proposed framework was validated since the interaction of emotional dysregulation had significant impact on the positive association between childhood traumatic experiences and vulnerability to substance abuse. Additionally, variables such as future orientation weakened the link between these parameters. Significant

interaction effects on the research variables were found when demographic parameters such gender, living status, family structure, and economic status were examined. The study yielded significant findings that agencies, medical professionals, practitioners, and specialists may utilize to address the challenges faced by youth in their native setting.

5.3 Study Limitations and Future Directions

The current study made a significant addition to the existing literature and had several strengths.

- On the present research variables, relatively little work has been done i.e. childhood traumatic experiences, vulnerability to substance abuse in link with personality factors and if there is the work, it is particularly on the drug abuser population and not among the normal population especially in context with Pakistani population
- The study highlighted the effects of different demographics, presence of childhood traumatic experiences and personality factors associated with vulnerability to substance abuse in relation with that in normal population that justify the marked increase in substance abuse cases especially in Pakistan in recent decades. The significance of the current study was emphasized by that.
- The current study also highlighted the buffering role of future orientation on the relation between childhood traumatic experiences and vulnerability to substance abuse. which adds valuable information in relation to Pakistani context

In addition to the positive aspects, it is important to acknowledge the potential limitations of this research.

- In current study we use self-report measures, which are prone to response biases such as individuals giving socially acceptable responses rather than honest ones, is one of

the main limitations. This method could provide findings that are misleading and might not adequately represent the complexity of the structures under study.

- Furthermore, convenience sampling was used, which may have introduced biases which affect the sample's representativeness.
- The results may also have been impacted by the individuals' varied socioeconomic, cultural, and demographic backgrounds, which introduces variability and makes generalization more difficult.
- Only university students were included in the study, and it was restricted to the Rawalpindi and Islamabad. Populations other than university students may be comprised for future exploration with a modest sample size.
- The majority of the participants in our study were undergraduates from various areas. We suggest that future researchers do a longitudinal investigation involving numerous samples, such as younger adolescents, to illustrate the connection between and childhood traumatic experiences, susceptibility to substance abuse in terms of personality traits and future orientation.
- The research was centered on only four demographics variable i.e gender, living status, family structure and socioeconomic status other demographic variables well may be included for future research is recommended
- Further a cross cultural research may be conducted to determine whether the buffering effect of future orientation is the same for other populations along with other protective factors like self control, mindfulness and social support.

- Qualitative research may be conducted in future which may provide more light on how childhood experiences, environmental possibilities and limitations influence emerging adults' future attitudes and actions.

5.4 Future Implications

The study's theoretical and practical implications will be advantageous to scholars, researchers, and policymakers. First, the results help with bridging the gap between childhood traumatic experiences and vulnerability to substance abuse with aspect of personality traits, as well as emotional dysregulation, which mediates the association between childhood traumatic experiences and vulnerability to substance abuse and future orientation moderates the link between these variables. The study also has some practical implications. For more research, this work might be used as a baseline.

The data show that if there is a susceptibility of substance abuse due to past traumatic childhood experiences, programs targeting communities with childhood trauma could focus on strengthening future orientation by emphasizing long-term goal setting as a way to reduce behaviors associated with increased risk of substance abuse and buffer against the negative influences of trauma in their surroundings. Targeted interventions should focus on encouraging optimism and aspirations for the future in order to address these issues. To foster optimistic hopes for the future, educational and therapeutic activities should be included into educational institutions-based guidance and psychological counseling services.

In the normal population patterns associated with to emotional dysregulation and increased risk of substance abuse are getting more highlighted so the educational establishments should arrange workshops and guided plan that is based on practices to regulate

emotions so that they can get benefit out of that in future. It is necessary to educate parents, educators, educational authorities, and medical experts about the significance of these factors. By improving knowledge of healthy coping mechanisms and offering advice on risk factor management, the risk of substance abuse can be reduced. Intervention techniques like cognitive behavioral therapy (CBT), motivational interviewing (MI), trauma informed therapy, psychoeducation, mindfulness-based interventions (MBCT), Emotional regulation training (ERT), personality targeted interventions etc. Lastly, in order to get positive results, organizations might provide training sessions, career counseling, and mentorship services.

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Annexure A

Consent Form

I am MPhil Psychology student, at the National University of Modern Languages, Islamabad.

I want your support in my research. If you agree to participate in this research, you will be required to complete the given questionnaires, which will take approximately 10-15 minutes.

Rest assured that all information about you will be kept confidential, and the information obtained will be used only for research purposes. You are requested to read the given questionnaires carefully and answer them honestly. You have the right to withdraw from the research at any stage.

Your involvement and cooperation will be appreciated.

Thank You

Annexure B

Demographic questionnaire

Age: _____

Gender:

- Male
- Female

Socioeconomic Status:

- Lower
- Middle
- Upper

Living status:

- Living in hostel
- Living with family

Family structure:

- Joint family
- Nuclear family

Annexure C

Now recall your childhood time (means prior to 18 years of age) and tell me that did you experience such circumstances?

1	Did a parent, guardian or other household member spank, slap, kick, punch or beat you up? OR Did a parent, guardian or other household member hit or cut you with an object, such as a stick (or cane), bottle, club, knife, whip etc.?	No	Yes
2	Did a parent, guardian or other household member yell, scream or swear at you, insult or humiliate you? OR Did a parent, guardian or other household member threaten to, or actually, abandon you or throw you out of the house?	No	Yes
3	Did you live with a household member who was a problem drinker or alcoholic, or misused street or prescription drugs?	No	Yes
4	Did you live with a household member who was ever sent to jail or prison?	No	Yes
5	Did you live with a household member who was depressed, mentally ill or suicidal?	No	Yes
6	Did you see or hear a parent or household member in your home being yelled at, screamed at, sworn at, insulted or humiliated? OR Did you see or hear a parent or household member in your home being slapped, kicked, punched or beaten up? OR Did you see or hear a parent or household member in your home being hit or cut with an object, such as a stick (or cane), bottle, club, knife, whip etc.?	No	Yes
7	Were your parents ever separated or divorced? OR Did your mother, father or guardian die?	No	Yes
8	*Did your parents/guardians understand your problems and worries? OR Did your parents/guardians really know what you were doing with your free time when you were not at school or work?	No	Yes
9	Did your parents/guardians not give you enough food even when they could easily have done so? OR Were your parents/guardians too drunk or intoxicated by drugs to take care of you? OR Did your parents/guardians not send you to school even when it was available?	No	Yes
10	Were you bullied?	No	Yes
11	Did you see or hear someone being beaten up in real life? OR Did you see or hear someone being stabbed or shot in real life? OR Did you see or hear someone being threatened with a knife or gun in real life?	No	Yes
12	Were you forced to go and live in another place due to any of these events? OR Did you experience the deliberate destruction of your home due to any of these events? OR Were you beaten up by soldiers, police, militia (military) or gangs? OR Was a family member or friend killed or beaten up by soldiers, police, militia (military) or gangs?	No	Yes

Annexure D

Please rate the extent to which the following items describe you, where;
1=not true at all, 4=somewhat true, and 7=very true.

		Not true at all			Some what true			Very true
1	It's often hard for me to calm down when I'm upset	1	2	3	4	5	6	7
2	When I am upset, I have trouble knowing what I am feeling, I just feel bad	1	2	3	4	5	6	7
3	When I am feeling bad, I have trouble remembering anything positive, everything just seems bad	1	2	3	4	5	6	7
4	Emotions overwhelm me	1	2	3	4	5	6	7
5	When I'm upset, I feel all alone in the world	1	2	3	4	5	6	7
6	When I'm upset, I have trouble solving problems	1	2	3	4	5	6	7
7	When I'm upset, I have trouble remembering that people care about me	1	2	3	4	5	6	7
8	When I'm upset, everything feels like a disaster or crisis	1	2	3	4	5	6	7
9	When I am upset, I have trouble seeing or remembering anything good about myself	1	2	3	4	5	6	7
10	I have trouble soothing myself when I am upset	1	2	3	4	5	6	7
11	When my emotions are stirred up, I have trouble thinking clearly	1	2	3	4	5	6	7
12	When my emotions are strong, I often make bad decisions	1	2	3	4	5	6	7

Annexure E

Indicate the extent to which you agree with the following statements by choosing the appropriate response for each question. Please answer as honestly as possible. There are no right or wrong answers. If the questions seem difficult to answer, this is normal. Take your time, the answer that comes to mind first is often the best. If you still are not sure, answer with how you feel today. Please make sure to answer every question.

		Strongly disagree	Disagree	Agree	Strongly agree
1.	I am content (pleased).	1	2	3	4
2.	I often don't think things through before I speak.	1	2	3	4
3.	I would like to skydive (parachute out of a plane).	1	2	3	4
4.	I am happy.	1	2	3	4
5.	I often involve myself in situations that I later regret being involved in.	1	2	3	4
6.	I enjoy new and exciting experiences even if they are unconventional (out of the ordinary).	1	2	3	4
7.	I have faith that my future holds great promise.	1	2	3	4
8.	It's frightening to feel dizzy or faint.	1	2	3	4
9.	I like doing things that frighten me a little.	1	2	3	4
10.	It frightens me when I feel my heartbeat change.	1	2	3	4
11.	I usually act without stopping to think. (I often act without thinking)	1	2	3	4
12.	I would like to learn how to drive a motorcycle.	1	2	3	4

13.	I feel proud of my accomplishments (achievements).	1	2	3	4
14.	I get scared when I'm too nervous.	1	2	3	4
15.	Generally, I am an impulsive person.	1	2	3	4
16.	I am interested in experience for its own sake, even if it is illegal.	1	2	3	4
17.	I feel that I'm a failure.	1	2	3	4
18.	I get scared when I experience unusual body sensations (feelings).	1	2	3	4
19.	I would enjoy hiking long distances in wild and uninhabited territory (unoccupied places)	1	2	3	4
20.	I feel pleasant.	1	2	3	4
21.	It scares me when I'm unable to focus on a task.	1	2	3	4
22.	I feel I have to be manipulative (sneaky) to get what I want.	1	2	3	4
23.	I am very enthusiastic (positive/excited) about my future.	1	2	3	4

Annexure F

Read both statements carefully and decide which statement best applies to you, then decide whether it is really true or sort of true for you. Only one statement should be selected and answered form pair of statements

1	Really True for Me	Sort of True for Me	Some people like to plan things out one step at a time	BUT	Other people like to jump right into things without planning them out beforehand (in advance)	Sort of True for Me	Really True for Me
2	Really True for Me	Sort of True for Me	Some people spend very little time thinking about how things might be in the future	BUT	Other people spend a lot of time thinking about how things might be in the future	Sort of True for Me	Really True for Me
3	Really True for Me	Sort of True for Me	Some people like to think about all of the possible good and bad things that can happen before making a decision	BUT	Other people don't think it's necessary to think about every little possibility before making a decision	Sort of True for Me	Really True for Me
4	Really True for Me	Sort of True for Me	Some people usually think about the consequences before they do something	BUT	Other people just act-they don't waste time thinking about the consequences	Sort of True for Me	Really True for Me
5	Really True for Me	Sort of True for Me	Some people would rather be happy today than take their chances on what might happen in the future	BUT	Other people will give up their happiness now so that they can get what they want in the future	Sort of True for Me	Really True for Me
6	Really True for Me	Sort of True for Me	Some people are always making lists of things to do	BUT	Other people find making lists of things to do a waste of time	Sort of True for Me	Really True for Me
7	Really True for Me	Sort of True for Me	Some make decisions and then act without making a plan	BUT	Other people usually make plans before going ahead with their decisions	Sort of True for Me	Really True for Me
8	Really True for Me	Sort of True for Me	Some people would rather save their money for a rainy day (difficult times) than	BUT	Other people would rather spend their money right away on something fun	Sort of True for Me	Really True for Me

			spend it right away on something fun		than save it for a rainy day (difficult times)		
9	Really True for Me	Sort of True for Me	Some people have trouble imagining how things might play out over time	BUT	Other people are usually pretty good at seeing in advance how one thing can lead to another	Sort of True for Me	Really True for Me
10	Really True for Me	Sort of True for Me	Some people don't spend much time worrying about how their decisions will affect others	BUT	Other people think a lot about how their decisions will affect others	Sort of True for Me	Really True for Me
11	Really True for Me	Sort of True for Me	Some people often think what their life will be like 10 years from now	BUT	Other people don't even try to imagine what their life will be like in 10 years	Sort of True for Me	Really True for Me
12	Really True for Me	Sort of True for Me	Some people think that planning things out in advance is a waste of time	BUT	Other people think that things work out better if they are planned out in advance	Sort of True for Me	Really True for Me
13	Really True for Me	Sort of True for Me	Some people like to take big projects and break them down into small steps before starting to work on them	BUT	Other people find that breaking big projects down into small steps isn't really necessary	Sort of True for Me	Really True for Me
14	Really True for Me	Sort of True for Me	Some people take life one day at a time without worrying about the future	BUT	Other people are always thinking about what tomorrow will bring	Sort of True for Me	Really True for Me
15	Really True for Me	Sort of True for Me	Some people think it's better to run through all the possible outcomes of a decision in your mind before deciding what to do	BUT	Other people think it's better to make up your mind without worrying about things you can't predict	Sort of True for Me	Really True for Me

Annexure

- | | |
|--|----------|
| 1. Did you ever use any drugs / substance? | Yes / No |
| 2. Have you ever smoked a cigarette? | Yes / No |
| 3. Did you ever misuse any prescribed/un-prescribed medication etc.? | Yes / No |
| 4. Have you ever taken any psychiatric medication for treatment of
any psychiatric illness? | Yes / No |

Annexure G

Scales' Permission

3/13/25, 11:08 PM

Gmail - Request for permission to use SURPS for research



Sadia Aleem <sadiaaleem09@gmail.com>

Request for permission to use SURPS for research

Patricia Conrod <patricia.conrod@umontreal.ca>

Wed, Mar 27, 2024 at 4:07 AM

To: Sadia Aleem <sadiaaleem09@gmail.com>, Max Mohan <maxmohan9944@gmail.com>

Dear Ms. Aleem, you have my permission to use the SURPs for the purpose of your research detailed below. I am also cc'ing Max Mohan who will provide you with a pdf of the scale, and it's scoring instructions.

Kind regards,
Patricia Conrod

Patricia Conrod, PhD

Tier 1 Canada Research Chair in Preventive Mental Health and Addiction

Professor of Psychiatry and Addiction, Université de Montréal

Senior Research Chair in Social and Community Pediatrics, Fondation Julien/Marcelle et Jean Coutu

Centre de Recherche, CHU Ste-Justine

[3175 Côte-Ste-Catherine, Montréal, QC, H3T 1C5](#)

tél: 514 345 4931 (ext 4051)

www.conrodventurelab.com

Director of SENSUM – Strategy for Neurosciences and Mental Health at Université de Montréal (www.sensum.umontreal.ca)

Co-Director of RQSHA – Quebec Research Network on Suicide, Mood Disorders and Related Conditions

(<https://reseausuicide.qc.ca>)

3/13/25, 10:49 PM

Gmail - Request for Adapted- ACE-IQ (12 items)



Sadia Aleem <sadiaaleem09@gmail.com>

Request for Adapted- ACE-IQ (12 items)

Lemasters, Katherine <KATHERINE.LEMASTERS@cuanschutz.edu>

Wed, Mar 27, 2024 at 6:32 PM

To: Sadia Aleem <sadiaaleem09@gmail.com>

Hi Sadia,

I am attaching the adapted version here. The original scale is what is referenced [here](#) (the only difference is that they have sexual abuse questions). Best of luck!

Kate

Katherine LeMasters, PhD MPH

Assistant Professor

Division of General Internal Medicine | Department of Medicine | School of Medicine

Department of Epidemiology | School of Public Health

University of Colorado Medical Campus

Katherine.lemasters@cuanschutz.edu

[website](#)

she/her/hers

3/13/25, 10:54 PM

Gmail - Fwd: [External] Request for Emotion Dysregulation Scale, short version (EDS-short version)



Sadia Aleem <sadiaaleem09@gmail.com>

Fwd: [External] Request for Emotion Dysregulation Scale, short version (EDS-short version)

Sadia Aleem <saadieahaleem@gmail.com>
To: sadiaaleem09@gmail.com

Wed, Mar 27, 2024 at 8:13 PM

----- Forwarded message -----

From: **Lott, Abigail** <abigail.lott@emoryhealthcare.org>
Date: Wed, Mar 20, 2024, 12:07 AM
Subject: Re: [External] Request for Emotion Dysregulation Scale, short version (EDS-short version)
To: Sadia Aleem <saadieahaleem@gmail.com>

Sure, here you go.

Best of luck.
Warm regards,
Abby

Abigail Powers Lott, PhD, ABPP
Co-Director, Grady Trauma Project
Associate Professor
Department of Psychiatry and Behavioral Sciences
Emory University
[49 Jesse Hill Jr Drive SE, Atlanta, Georgia 30303](http://gradytraumaproject.com/)
<http://gradytraumaproject.com/>
She/Her/Hers

3/13/25, 11:12 PM

Gmail - Fwd: [External] Request for future orientation scale



Sadia Aleem <sadiaaleem09@gmail.com>

Fwd: [External] Request for future orientation scale

Sadia Aleem <sadiaaleem09@gmail.com>

Wed, Nov 13, 2024 at 7:11 PM

To: "mf16march@gmail.com" <mf16march@gmail.com>

----- Forwarded message -----

From: **Sadia Aleem** <saadieahaleem@gmail.com>

Date: Wed, 27 Mar 2024, 8:13 pm

Subject: Fwd: [External] Request for future orientation scale

To: <sadiaaleem09@gmail.com>

----- Forwarded message -----

From: **Laurence Steinberg** <lds@temple.edu>

Date: Thu, Mar 21, 2024, 4:12 PM

Subject: RE: [External] Request for future orientation scale

To: Sadia Aleem <saadieahaleem@gmail.com>

Yes, you may

Laurence Steinberg

Distinguished University Professor

Laura H. Carnell Professor of Psychology and Neuroscience

Temple University

Weiss Hall

1701 N. 13th Street

Philadelphia, PA 19122

lds@temple.edu