**Original Article** 

# Nature of University Students: The Role of Adverse Childhood Experience, Self-Blaming and Criminogenic Cognitions

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#### ABSTRACT

Aim of the Study: The current study aimed at exploring the relationship between adverse childhood experiences, self-blaming and criminogenic cognitions in university students.

**Methodology:** For this purpose, a cross-sectional research strategy was used to assess the prevalence of adverse childhood experience, self-blaming and criminogenic cognitions in university students. Data was collected from 200 university students using convenient sampling. Descriptive statistics were used for demographic findings and linear regression analyses were performed to determine the association between adverse childhood experiences (ACE), self-blaming and criminogenic cognition.

**Findings:** The findings show that there is a negative correlation among the variables that are adverse childhood experience (ACEs), Self-Blaming (SB) and Criminogenic Cognitions Scale (CCS). It means that there is less likelihood that adverse childhood experience and self-blaming can cause criminogenic cognitions in students. However, there was a significance that was found with a subscale Failure of Accept Responsibility (FAR) of Criminogenic Cognitions Scale (CCS) with regard to independent variables.

**Conclusion:** Study concluded that the culture and the society of the country Pakistan could greatly influence how such experiences might be received and in turn affect a person. Strong families and community support in Pakistan might prevent the ACEs, such as developing the thinking that leads to criminality. These cultural factors may also decrease the 'self-blame attitude' which, in turn, does not directly imply a link and explain why there was no association with criminogenic thinking.

**Keywords:** Adverse Childhood Experience, Self-Blaming, Criminogenic Cognitions, Nature, University Students.

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# 1. INTRODUCTION

ACEs are the traumatic childhood events that can impact a child's cognitive emotional and behavioral development, which can lead to individuals engaging in self blaming as a way to make sense of their experiences. Furthermore, the development of criminal thinking can be influenced by different factors including childhood experience, sociocultural factor and personal interaction. In order to understand how criminogenic cognitions develop and its link with ACEs and self-blaming, is it important to point out criminal behavior.

### 1.1 Adverse Childhood Experience

ACE or adverse childhood experiences refers to negative incidents that a child goes through from age one to seventeen years. Typically, such experiences are negative. These early stressful events can affect the health of an individual spanning his or her entire lifetime. It can lead to mental illness, continuous physical illness, and substance use disorders. These conditions can be cured or controlled as the person goes through the various phases in his/her lifetime (Brown et al., 2019).

Adverse Childhood Experiences (ACEs) can lead to toxic stress. This type of stress occurs when intense stressors overwhelm the body, negatively impacting metabolism, the immune system, the cardiovascular system, the brain, and neurological functions. Toxic stress has a cumulative effect; the greater the number of ACEs a child experiences, the more profound the consequences on their mental and physical health (Shon off et al., 2012).

A child's body experiences extreme stress as a result of adverse childhood experiences. Your body releases substances such as cortisol and adrenaline under stress to assist you in coping with the situation. The fight-or-flight reflex is the name given to this response. These hormones are produced, and the results include elevated heart rate, altered breathing patterns, altered vision, and other side effects. Usually, this is a fleeting response. The constant activation of the stress hormones is the result of prolonged tension, which is not what we want. It can impact the development and operation of your brain and is referred to as toxic stress (Leffler, 2022; Awan et al., 2023).

A person's development may be impacted by traumatic childhood experiences. Children have an innate need to absorb knowledge from their environment. Children who are motivated in this way are more likely to become independent and reach age-appropriate developmental goals.

Positive and negative formative experiences all have an impact on a child's growth and development. The brain of a child is like a sponge that actively absorbs all the information from the world around it. They can understand from what events they went through and they are able to acquire knowledge from their environment. They learn to say please or thank you, how to draw, use a spoon, and even cycle. If a youngster does something wrong, for instance, falls off a bicycle, then he is sure to change for the better. They may slow down or may use extra precautions. The negative event may be beyond a child's control and the child cannot pace themselves or even protect themselves from something affecting the mind or body. Some of the ACEs are the death of a related person, sexual abuse, physical abuse, and others (Nagel, 2012; Zia-ur-Rehman and Naz, 2022).

While traumatic experiences may harm anyone at any age, trauma to a kid is especially severe since their brain is still developing. ACEs specifically target a child's memory (hippocampus) as well as parts of the brain that aid in logical thought (prefrontal cortex) and emotion processing (amygdala). Severe or prolonged stress causes various portions of a child's brain to go into survival mode for an extended period of time. This can impair particular regions of their brain, influencing how they react to specific events as kids develop into adults. Although such changes to a child's brain might have an impact on their general development, these are not necessarily permanent. There is treatment and mental healthcare accessible for a kid or adult who has had ACEs to help them reorient how their brain handles trauma and stress (Agorastos & Chrousos, 2022; Hamdani et al., 2023; Jan et al., 2023).

The two main categories of adverse childhood experience (ACEs) are various types of abuse (physical, emotional, sexual, neglectful, and witnessing domestic violence) and issues that arise in the home (mental health disorders in family members, alcohol or other psychoactive substance abuse, parental divorce or separation, and a family's history of imprisonment). Furthermore, it has been proposed that socioeconomic factors such as financial challenges and poverty, racial discrimination, exposure to political upheaval or conflicts, and violent episodes in the community or at schools ought to be included as ACEs (Touloumakos & Barrable, 2020).

ACEs can cause the development of chronic health disorders, mental health disorders, or substance use disorders later in life and change the way the body might respond to stress. ACEs can be violence, abuse, and growing up in a household experiencing mental health or substance use disorders. An event that is likely to cause toxic stress or chronic stress which is regarded as traumatic. The person's physical and mental health are affected by these experiences. Signs of stress could be expressed in the form of feeling terrified, powerless, or even experiencing possible real bodily harm (Shonkoff et al., 2012).

Trauma may occur in both adults and children, regardless of whether they are exposed to the incident directly or through media like the Internet or television. Media can also trigger memories of traumatic childhood events. Adults may suffer long-term effects from traumatic childhood events. It may impact your well-being, standard of living, and potential to pursue opportunities like a career or education (Westley, 2023).

Adverse childhood experiences can give rise to disorders such as anxiety, depression, PTSD, phobias, sleeplessness, or eating disorders. ACEs have been associated with several chronic illnesses, including cancer and heart disease. This occurs when your body is under physical stress. Because it impacts the processes of cell division and replication, it may cause cancer if it interacts with the cells. Simultaneously, it causes hypertension, which may lead to heart failure (Godoy et al., 2021).

# 1.2 Self-blaming

Blaming oneself refers to a cognitive process in which a person holds himself responsible for a traumatic event, which is known as self-blame. When someone is assigned blame, it typically affects how they feel and behave both during and after difficult situations. Individuals' adjustment is impacted by self-blame, which is a common response to stressful situations. It is believed that some forms of self-blame, which include sentiments of shame and contempt that are focused inward, are contributing factors to depression. It is appropriate to examine self-blame using psychological viewpoints on stress and coping as it is a common stress response and affects mood (Janoff-Bulman,1979).

At times, when an individual goes through a traumatic event, they tend to blame themselves. This particularly happens in cases where one had nothing to do with the traumatic incident. Even though this self-blame mentality is absurd, yet a person takes this responsibility for a variety of reasons, including a single incident or chronic childhood trauma. When we are young, we do not have the ability to see our caregivers' shortcomings and scars. We lack the developmental capacity to go outside of our own experience and realize that our caretakers are incapable of addressing our requirements. We can't look beyond ourselves, therefore blaming others is out of the question. Because we are unable to place blame elsewhere, the anguish must be focused someplace, which is frequently inside (Zipursky, 2023).

Self-blame is also a survival mechanism. In which if we hold the caregivers accountable for our trauma, we lose trust in their ability to provide for us. However, when we place the blame on ourselves, we provide the false sense that we are ultimately secure and in control of the situation, even when we are not. We are conditioned to respond spontaneously and subconsciously when a traumatic event happens. Our nervous system is always scanning our environment, unconsciously, for any potential dangers. Just like an alarm system. We glance at the scenario as soon as the alarm goes off and decide whether to run, fight, or hide. We tend to think that more might have been done because we are not aware of this near-instantaneous judgment. The fact is that we most likely did all possible to keep ourselves safe, even if

horrible things did happen. Because we are unaware that this activity occurs automatically, we decide that we might have done better or more, therefore placing the blame on ourselves (Zipursky, 2023).

To identify whether people are blaming their actions on unchangeable or changeable factors, a categorization of self-blame into behavioral and characterological kinds was introduced by (Janoff-Bulman, 1979).

Behavioral self-blame (BSB) is associated with a belief in preventing a negative event in the future, which is control-related, and involves attributing blame to one's own actions. On the other hand, Characterological self-blame (CSB) is associated with a sense of entitlement to oneself for past bad events, which is esteem-related, and requires attributing blame to a source that is essentially unchangeable one's character. While unstable and controlled attributions (BSB) are more uncertain, it has been proposed that stable and uncontrollable attributions (CSB) are often maladaptive. Self-blaming behaviors can lead to higher suffering in those with chronic physical health disorders. Because of the mind-body link, this discomfort can worsen the physical condition by causing the brain to release natural painkillers in response to your feelings and thoughts (Janoff-Bulman, 1979).

### 1.3 Criminogenic Cognitions

Criminogenic cognitions, or criminal thinking patterns, are the concepts, beliefs, and mental processes that are linked to criminal action. These skewed cognitions can play a substantial influence in the beginning and persistence of criminal and sexual offenses (Andrews &Bonta, 2014).

Criminogenic refers to something that may lead to or contribute to criminal activity. It refers to elements or events that raise the risk of committing a crime. Living in a high-crime neighborhood or having a history of maltreatment may be termed criminogenic. The word is derived from the words "crime" and "genesis," which refer to the beginning or formation of anything.

Psychology has usually concentrated on moral reasoning, but other aspects of moral cognition, such as cognitive distortions, criminogenic cognitions, insensitivity, and neutralization, may be more predictive of ethical behavior. Andrew and Bonta (2014) described criminogenic cognitions as thoughts, ideas, and acts that contribute to antisocial behavior. Criminogenic cognitions are flawed modes of thinking that perpetuate illegal behavior by rationalizing or defending illogical actions. The aberrant thinking is caused by cognitive distortions and criminogenic cognitions, and the immoral cognitions that help to maintain, excuse, and encourage criminal behavior. (Andrews & Bonta, 2014).

A criminal lifestyle is encouraged by empirical data from a varied range of behaviors, which shows a decline in altruistic behavior and aversion to responsibility. Furthermore, researchers using criminal, clinical, and normative samples as well as clinicians who work with criminals support the idea that these patterns of criminal thinking and cognitive distortions are present in sex offenders, people who commit domestic abuse and other antisocial behaviors, and college students who exhibit misconduct within the institution (Gendreau et al., 1997).

# 1.4 Criminogenic Needs

According to Andrews et al. (2006), the "central eight" risk/needs components are the primary predictors of criminal behavior that include these criminogenic needs.

The eight main criminogenic needs, as determined by meta-analytic research, are substance abuse; dysfunctional family; criminal thinking and behavior; criminal associates; employment and education; leisure and recreation; and antisocial behavior and personality. These criminogenic necessities might be prioritized in order to focus resources on the most pressing criminogenic needs, based on an evaluation of the offender (Andrews et al., 2006).

# 1.5 Antisocial Peer

Socializing with offenders increases one's likelihood of engaging in criminal activities. The prisoner is left without a social support structure to assist them in maintaining appropriate behavior as "prosocial" people progressively fade away from their lives. Research suggests that an individual's social circle may serve as the most accurate predictor of their likelihood to commit crimes. However, because it undermines their sense of independence, prisoners often dispute the influence of outsiders on their lives. They consider themselves to be leaders as opposed to followers.

### 1.6 Antisocial Beliefs and Values

Men and women in prison frequently display specific cognitive errors that impact their interpretation and processing of information. These errors include feeling entitled, justifying their actions, placing blame, having unrealistic views of reality, adopting a "victim stance," misinterpreting innocuous actions or comments as threats, and confusing needs with wants.

### 1.7 Personality Traits

An antisocial personality disorder might be a valid diagnosis for certain convicts. They don't follow the law or social conventions, they act with reckless disregard for the safety of others, and they have little to no regret for mistreating other people. They are also prone to lying, being careless, being violent, aggressive, and being impulsive. A person could possibly be inclined toward criminal activity by any one of these qualities.

### 1.8 Family Dysfunction

Individual's first learning about attitudes, beliefs, and behaviors starts from their families. It is common for a person who is facing abusive or neglectful relationships, broken households, permissiveness, or a family member involved in drug or alcohol abuse or criminal activity to have an impact on their negative, harmful thought patterns and behaviors.

### 1.9 Low Self-control

Impulsivity and risk-taking are common traits among criminals. People who lack self-control are prone to situational and external triggers. There aren't many things preventing them from participating in risky or criminal activities if they don't have strong connections with their family, friends, or employment.

### 1.10 Substance Abuse

The probability of engaging in criminal activity is correlated with the level or amount of drug dependence and consumption. Some people take drugs because they are actual addicts, while others are "dabblers," who may use them more out of opportunity than obligation. Others fall somewhere in between.

### 1.11 Recreation and Leisure

Minimal participation in anti-criminal leisure activities.

Criminogenic necessities are dynamic characteristics of an offender that are linked to recidivism risk when altered. While non-criminogenic demands are likewise dynamic and subject to change, there is little proof that these shifts are related to the likelihood of recidivism (Morgan et al., 2020).

Criminogenic cognitions, or specific cognitive patterns connected with criminal activity, have been widely researched in a variety of groups. These cognitions are frequently examined using instruments such as the Criminogenic Cognitions Scale (CCS), which evaluates cognitive distortions specific to criminal offenders (Tangney et al., 2017).

Criminogenic cognitions differ from moral standards in that they indicate cognitive processes that might decrease the relationship between one's standards and real action (Tangney et al., 2012).

# 2. THEORETICAL FRAMEWORK

### 2.1 Adverse Childhood Experience

According to Trauma theory traumatic experiences such as ACEs can affect one's mental health by creating three symptom clusters. Hyper-arousal which is a significant symptom of PTSD in which the sympathetic nervous system is activated wherever there is any traumatic memory and puts one in a condition where they are unable to tolerate it for an extended time. As a result, traumatized individuals commonly exhibit another symptom cluster known as constriction, in which they become physically, emotionally, and cognitively resilient to stimuli. While restrictions may help people avoid painful traumarelated responses, intrusion can occasionally break through, letting the person who survived to relive the trauma through shattered images and powerful sensations of the original event, notably in the form of nightmares (Herman, 2015).

### 2.2 Self-blaming

Theories from various fields of psychology suggested that it may demonstrate that perceived control plays a significant role in the consequences of self-blame, despite insufficient empirical proof to support this claim.

Social psychology theories of stress and coping pointed out that self-blame is a form of coping mechanism as it includes cognitive processes that impact a person's relationship to their objectives. Because self-blame addresses the feelings that result from a stressful event without trying to eliminate the stressor, it could be more accurately described as an emotion-focused coping method. Moreover, behavioral self-blame might encourage or be linked to problem-focused coping by convincing people that they can stop bad things from happening in the future. People's coping mechanisms are impacted by the kinds of attributions they make when they engage in self-blame (Yarosh et al., 2021).

### 2.3 Criminogenic Cognitions

Numerous theories, like the general theory of crime and modern aggression theory, emphasize that the attitudes and beliefs of the criminal have a substantial impact on the formation and maintenance of criminal, antisocial, and violent actions.

# 2.4 General Theory of Crime

General theory of crime, commonly known as the self-control theory, states that the primary cause of criminal behavior is a lack of self-control. It asserts that those who lack self-control, which is established in them from an early age through parenting, are more likely to act recklessly and impulsively, which may satisfy their needs immediately but may have unfavorable long-term effects. Throughout life, this degree of self-control essentially stays the same. The idea also states that, even if a lack of self-control makes people more likely to commit crimes, chances for criminal activity also play a part. Consequently, the prevention of crime depends heavily on early childhood treatments aimed at enhancing self-control (Gottfredson & Hirschi, 1990).

# 2.5 Modern Theories of Aggressiveness

According to modern theories of aggressiveness, violent conduct may be attributed to a wide range of causes. Aggression is not the result of just one factor, such as impulse, desire, or frustration; rather, a number of variables influence violence and aggressive conduct.

Even if antisocial behavior and crime rates are rising worldwide, both theoretical and empirical research show that criminogenic cognitions play a significant role in understanding pathological and immoral behavior. However, there is no evidence in the literature of noteworthy attempts to thoroughly, impartially, and cross-culturally evaluate these criminogenic thought processes. Therefore, the necessity for creating, adapting, and cross-validating appropriate instruments for the cross-cultural evaluation of criminal thought patterns is increasing (Bushman & Huesmann, 2010).

# 3. LITERATURE REVIEW

The literature review will provide a thorough comprehension of various studies based on adverse childhood experience, self -blaming and criminogenic cognitions in university students.

A study was conducted to evaluate ACEs linked with Health Risk Behavior (HRBs). The results of this study demonstrated that people who had experienced ACEs were more likely to have HRBs. Among the university students that took part, ACEs were very common. Child abuse is therefore a serious public health issue (Majid et al., 2023).

The study examined the several detrimental effects of ACEs on behavioral, psychological, and physical health. As a result, the cut-point for the ACE scores in relation to the health score is not clearly established. Therefore, bringing up the uncertainty around the number of ACEs associated with a poor chronic health status is the aim of this study. The study used a secondary analysis which utilized the use of data from a cross-sectional study in order to accomplish the stated goal. There was use of logistic regression testing, nonparametric regression, and descriptive statistics. This study collected self-report health parameters and demographic data. The findings showed that a cut-point of four or more ACEs was significantly correlated with a higher frequency of chronic disease. A specific cut-point for ACE scores will help in the future to investigate the influence of high ACEs in different cultures to understand how childhood experiences affect health (Alhowaymel et al., 2023).

No study has been carried out regarding the prevalence of ACEs in Kashmir, India. Thus, this study was carried with the objective to estimate the ACEs prevalence among young adults across all ten districts of Kashmir Valley. A cross-sectional research strategy was used to assess the prevalence of ACEs by using a multi-stage sampling method. It was noticed that less than one-fourth of the respondents reported high exposure to ACEs, more than one-tenth of the participants reported extremely high exposure to ACEs over a quarter of the sample reported moderate exposure to ACEs, one-third of the youth reported low exposure to ACEs, and over one-tenth of the respondents reported no exposure to ACEs. The findings suggest that early targeted interventions to reduce ACEs and their impact should be reinforced, and efficient measures designed to improve health and well-being of young adults in Kashmir (Dar et al., 2022).

This research was meant to investigate how ACEs have an effect on depression, psychological distress and suicidal ideation amongst adolescents in the regions of Vietnam. This paper focuses on the high incidences of ACEs among adolescents and their significant link with health complications. Thus, the findings highlight efforts aimed at preventing ACEs and mental health problems in adolescents (Thai et al., 2020).

This study fills the gap by using data from a nationally representative youth sample in furthering a measure to contextually embed ACEs at the individual level within the social and structural-domain based on community-level adversity. These findings resonate with the idea that community adversity worsens the damaging effects of individual/family adversity and hence should be targeted in initiatives aimed at preventing ACEs and reducing their long-term harm (Warner et al.,2022).

# 3.1 Self-blaming

This study aimed to figure out whether the reality counseling metaphor strategy may lessen students' victimization of themselves by body shaming, leading to a reduction in their guilt. Systematic Literature Review is a research method used. The steps of a systematic literature review are as follows: creating a list of questions, defining criteria, locating literature, choosing literature, presenting data, analyzing data, and rendering findings. Five publications from 2015 to 2020 were chosen for inclusion in the collection based on selection criteria that were similar to the goals of the researchers. The findings of this research,

which are based on earlier studies, show that students' self-blaming against body-shaming victims can be decreased by employing the metaphorical strategy in conjunction with the reality counseling approach (Kaesti et al., 2023).

The objective of this research was to explore the relation between depression, self-blaming remorse, and two important variables: perceived stress and COVID-19 dread. Through serial multiple mediation analyses, the results showed a positive correlation between higher levels of perceived stress and fear related to the Covid-19 pandemic and higher incidence rates for depressive symptoms. This suggested a relationship between these variables and disease outbreaks. The overall results point to the significant role that ideas like self-blame regret, fear-based anxiety about the spread of COVID-19, and a high view of life events may play in psychological aspects, such as depression susceptibility during highly diseased event occurrences like pandemics that significantly impact communities around the world (Belen, 2021).

Finding out how body shaming affects students at SMP Negeri 27 Banjarmasin self-blaming is the goal of this study. Vargas's body shaming scale and Coleman's self-blaming scale were the tools employed in this investigation. Body shaming is the study's independent variable, while self-blame is its dependent variable. According to the findings, students at SMP Negeri 27 Banjarmasin experienced an impact from body shaming on self-blame. In conclusion, this study found that the level of body shaming perpetrated by students at SMP Negeri 27 Banjarmasin was very high, leading to moderate self-blaming among the victims. Student behavior is greatly impacted by both self-blame and body shaming (Hariyati et al., 2022).

# 3.2 Criminogenic Cognitions

The young individuals are often rampant cases of problem behaviors like risky sexual acts, cheating academically, and use of drugs. To understand how these problems develop, this study examined two lesser-known building blocks associated with the propensity for risk taking: differential identification which has not been empirically assessed among emerging adults and criminogenic thinking that has scarcely been evaluated in this context. It was predicted that motivation would moderate the relationships between these constructs and risk-taking behavior. The results revealed that motivation was not moderated by either differential identification had a significant main effect on risk-taking behavior. No other main effects were seen. This study also addresses possible reasons for these findings while outlining implications and recommendations for future research (Leggett & Mandracchia, 2020).

This study analyzed the criminogenic needs of male young offenders and university students in Hong Kong. Network analysis was used to evaluate how these needs were related between groups. The findings suggest that incarcerated emerging adults had significantly higher levels of criminogenic needs than university students, but there was no difference found between first-time and repeated offenders' needs. It was also discovered that gang membership did not have any significant effect on criminogenic needs or moderate its relationship with other factors contributing to criminal behavior across all three groups studied here. When compared to the non-offender network, the first-time and repeat offender networks exhibited strong structural invariance, according to regularized graphic Gaussian models, which also demonstrated that the criminogenic requirements were clustered comparably across the three groups. The expected influence and bridge expected influence between networks of highly central nodes differed from one another (Tang et al., 2024).

This study aims to investigate cognitive distortions among criminals using a self-report inventory while improving evidence-based psychotherapy emphasizing challenging criminogenic cognitions. The primary objective was assessing ICD's psychometric properties upon capturing differences within overall levels related to cognitive distortions samples after relying heavily on externalization of self-worth, perfectionism and emotional reasoning and logical reasoning. From the results, the estimated psychometric characteristics of the ICD have been identified as positive. Five components were identified by factor analysis, three of which were the same as those found in the original study: cognitions such as

perfectionism, dependency on others' approval as measure of self-value and inclination towards emotional reasoning and decision making. Negative expectancies, tendency to quickly jump into judgments, and absolutistic/dichotomous thinking was approached as two of the other elements. Greater extent of cognitive distortions was asserted by criminal participants. Out of the six subscales of the TCU-CTS, positive and substantial correlation was observed in five of those with the ICD. Future studies should establish a correlation between caveats and other components that enable the perpetration of criminal deeds and repeat offenses, even though it has been established that caveats promote criminal actions and retrial (Akpoduado, 2022).

The current study analyzed the pattern of factors that enable the engagement in criminal behaviors together with the pattern of the corresponding positive cognitions with regard to career critical activities, within the integrated SCCT-RNR model. To test other variables such as self -efficacy abilities with regards to vocation skills and employment outcome expectations, or criminal thoughts processing history with regards to illegitimate acts involvement, four simple mediation analyses with bootstrapping methods were used in the design of the research instrument. Results from findings showed significant mediating roles played by vocational skill self-efficacy: The research results obtained showed a positive relationship between both aspects of criminal reasoning, namely, the desire/motive and the expectations of the outcomes resulting from acquisition of professional development and or the professional desire through participation among goal-setting activities within academic areas up to career-related pursuits with no unlawful experience. Therefore, in support of this research, SCCT along with RNN would be useful in the case of criminal activities again once they have a proper job (Bull, 2022).

The main aim of the current study was to measure multiple components of future time orientation (impulsivity, self-control, delay discounting, and future time perspective) in a single study, and examine their bivariate and incremental predictive relationships with both overall criminal thinking style and illegal behaviors. The bivariate results generally supported prior research: a negative relationship was found between future time orientation (i.e., low impulsivity, high self-control, and high future time perspective) and criminal thinking style. The relationship between delay discounting and criminal thinking was in the hypothesized direction but failed to reach statistical significance. Multiple regression analyses indicated that the measure of self-control had the most consistent and incrementally significant relationship with both criminal thinking style and illegal behaviors (Squillaro, 2023).

The goal of this research is to distinguish the characteristics associated with crime (such as number of cases filed or criminal history) based on the criminal mindset exhibited by convicts. Moreover, due to inconsistencies in previous measurement tools, a new instrument called the Criminal Attitude Measure (CAM) was developed specifically for measuring thinking patterns among male convicts incarcerated in central prisons within Punjab. Results revealed that both indigenous and translated versions of existing scales had poor model fit compared to CAM's proposed five-factor structure: power orientation, mollification, entitlement, mistrust towards authorities and short-term orientation confirmed accurately via confirmatory factor analysis (CFA). Additionally, CAM successfully differentiated between recidivists, convicted multiple times, and those with familial ties indicating its practical reliability. However, this study suggests that CAM is an effective tool for accurately tracking criminal thought processes amongst inmates (Ishan, & Kamal, 2024).

### 3.3 Rationale

Several studies have shown that ACEs, such as childhood abuse, can have a long-lasting emotional impact on children, harming their development as individuals, their academic performance, and their overall well-being throughout adulthood. The lack of indigenous research on the appearance of criminal thinking in undergraduate is the research gap that needs to be highlighted. The objective of this current research was to look into how ACEs lead to criminal thinking and self-blame. This complicated relationship among criminogenic cognition, self-blaming, and adverse childhood experiences in

undergraduates will be helpful in assisting them overcome the negative effects of their past and improve their current situation, which will ultimately help them succeed in both their personal and academic lives.

# 3.4 Research Questions

- How does adverse childhood experience influence criminogenic cognitions in students?
- What is the relationship between self-blaming tendencies and adverse childhood experience among students?
- Do university students with higher levels of criminogenic cognitions also report higher instances of self-blaming behavior?

# 3.5 Hypotheses of the Study

- There will be a positive relationship between adverse childhood experiences, self-blaming and criminogenic cognitions in university students.
- Adverse childhood experiences and self-blaming will likely predict criminogenic cognitions in university students.
- University students who have experienced adverse childhood experience and self-blaming lack effective coping mechanisms and are more prone to develop criminogenic cognitions.

# 4. METHOD

This section specifies the methodologies and strategies used to carry out in this study while keeping to the ethical and principle-based foundation of good research. The constituent concepts can be further divided into study design, sampling technique, participant characteristics, measurements, methods, ethical issues, and statistical analysis.

# 4.1 Research Design

This research was established on a correlational research design. Where correlational design is projected as a non-experimental design that serves to examine the association between two variables without manipulating the said variables, however the design lacks the prowess to establish a functional relation describing the cause of the said relation, if established (Wolf et al., 2016). The variables of interest of this study were the adverse childhood experience, criminogenic cognitions and self-blaming in Undergraduate.

### 4.2 Sample and Sampling Strategy

This sampling technique that was used in this research was convenient sampling. For this research a total number of (N=200) were included. The participants were undergraduate with the age range of approximately 18-30 years. (M = 22.02; SD = 2.37)

# 4.3 Inclusion Criteria

- 1. The participant must be enrolled in an undergraduate program at a public or private institution in Lahore.
- 2. The participant must fall in the age range of 18-30 years.
- 3. To understand and reply to the items, the participant must have good English comprehension skills.

# 4.4 Exclusion Criteria

- 1. The participant must not be diagnosed with any psychological disorder
- 2. The participant should not be suffering from any sort of physical impairment.

| Variables         | f (%)     | M(SD)                  |
|-------------------|-----------|------------------------|
| Age               |           | 22.02(2.36)            |
| Gender            |           |                        |
| Male              | 104(52)   |                        |
| Female            | 96(48)    |                        |
| Marital Status    |           |                        |
| Married           | 12(6)     |                        |
| Unmarried         | 188(94)   |                        |
| Family System     |           |                        |
| Nuclear           | 147(73.5) |                        |
| Joint             | 53(26.5)  |                        |
| Employment Status |           |                        |
| Employed          | 42(21)    |                        |
| Unemployed        | 158(79)   |                        |
| Family Income     |           | 267120.00 (587768.804) |
|                   |           |                        |

 Table 1: Descriptive Statistics of Demographic Variable (N=200)

#### 4.5 Assessment Measures

Following are the measures used in the research study.

#### 4.6 Demographic Sheet

The Demographic Sheet includes basic information about participants Including age, gender, education, marital status, family system and monthly income. Three scales were also used in this research study which are as follows;

### 4.7 Adverse childhood experience (ACEs) Questionnaire (Felitti et al., 1998)

The 10-item questionnaire called the Adverse Childhood Experiences (ACEs) Questionnaire is used for assessing trauma experienced as a kid. Ten various kinds of childhood trauma that were studied for the ACE Study are evaluated using the questionnaire. The following five are personal: physical abuse, verbal abuse, sexual abuse, emotional neglect, and physical neglect. Five of these are connected to other family members: an alcoholic parent, a mother who has experienced domestic abuse, a family member in jail, a family member with a diagnosis of mental illness, and an absence of a parent due to divorce, death, or abandonment. The Cronbach alpha value of the scale was 0.857

### 4.8 Self-Blaming Scale (Redyy, 2023)

It consisted of a 5-point Likert scale. The scale has five categories: "strongly agree," "agree," "sometimes agree/disagree," "disagree," and "strongly disagree." Since it asks participants to appraise and select the best acceptable answer to a hypothetical circumstance. The Self-blame Scale is a situational scale. The scale will only be appropriate to an adult population because it was developed and validated for use with individuals in the 20–40 age range. An examination of the scale using exploratory factor analysis resulted in the creation of a scale with fewer items. The Cronbach alpha value of the scale was 0.891.

### 4.9 Criminogenic Cognitions Scale (CCS) (Tangney et al., 2007)

CCS focuses on 5 parameters: (a) Notions of Entitlement (When I want something, I expect people to deliver); (b) Failure to Accept Responsibility (Bad childhood experiences are partly to blame for my current situation); (c) Short-Term Orientation (The future is unpredictable and there is no point planning for it); (d) Insensitivity to the Impact of Crime (A theft is all right as long as the victim is not physically injured); and (e) Negative Attitudes toward Authority (People in positions of authority generally take advantage of others). The Cronbach alpha value of the scale was 0.81.

### 4.10 Procedure

After obtaining the approval of the synopsis from the institution, University of management and technology (UMT). Data was collected in person. Participants received assurances that their involvement would remain anonymous.

It also contained the demographic sheet of the respondents and the scales related to the variables. The research was conducted in compliance with APA declaration on research ethics and all the ethical factors were also put into consideration in order to ensure objectivity and novelty.

### 4.11 Ethical Considerations

- The questionnaires were filled out in an ethical manner, protecting participants' rights.
- The researcher provided them with a consent form and explained the goal of her Research.
- The consent form highlighted the possible benefits, harms, as well as discomforts for participants.
- It ensured the confidentiality of participants' information. It did not interfere with their privacy.
- The questionnaire instructions provided brief information on the topic and how to select answers based on one's circumstances or viewpoint.
- The researcher informed participants that they could choose to withdraw from the questionnaire if they felt it uncomfortable at any stage during the study. After getting the necessary information, participants have the option to fill out the scales or not.
- To maintain ethical integrity, the research was conducted with transparency and honesty.
- There was no deception or exaggeration about the aims or procedures of the research.
- The researchers acquired specific authorization from the authors of the scales/tools used in the research. This step was critical in ensuring ethical compliance and protecting intellectual property rights.

# 5. RESULTS

The study was conducted to examine the relation between adverse childhood experiences, self-blaming and criminogenic cognitions in undergraduate students. The sample size of the research was (N=200) students from different universities. For data various analyses were performed.

| M SD                      | Range Cronbach's     | α          |
|---------------------------|----------------------|------------|
| 17.45 2.12                | 0-10 .67             |            |
| 63.53 8.01                | 25 - 100 .68         |            |
| 68.51 12.79               | 22-110 .84           |            |
| 63.53 8.01<br>68.51 12.79 | 25 - 100<br>22 - 110 | .68<br>.84 |

**Table 2:** Psychometric Properties Scales and Subscales (N=200)

*Note*: Adverse childhood experience (ACEs), Self-Blaming (SB), Criminogenic Cognitions Scale (CCS).

The reliability statistics for the scales measured in the study indicate varying levels of internal consistency. The ACE scale had a mean score of 17.45 (SD = 2.12) with a Cronbach's  $\alpha$  of .677, suggesting a marginally acceptable level of reliability, though it may benefit from refinement to improve consistency. The CG scale showed a mean of 63.53 (SD = 8.01) and a Cronbach's  $\alpha$  of .62, which indicates a lower level of reliability, suggesting potential issues with internal consistency that may need addressing. The SB scale had a higher mean score of 68.51 (SD = 12.79) with a Cronbach's  $\alpha$  of .84, indicating good reliability and suggesting that this scale consistently measures the underlying construct effectively.

| Variables | m(SD)      | 1      | 2      | 3           | 4           | 5      | 6      | 7    | 8 |
|-----------|------------|--------|--------|-------------|-------------|--------|--------|------|---|
| 1. ACE    | 17.4(2.12) |        |        |             |             |        |        |      |   |
| 2. SB     | 68.5(12.7) | 222*** |        |             |             |        |        |      |   |
| 3. CG     | 63.5(8.0)  | 050    | .102   |             |             |        |        |      |   |
| 4. STO    | 12.8(2.5)  | 044    | .033   | .577**      |             |        |        |      |   |
| 5. NOE    | 12.6(2.6)  | .005   | .015   | $.705^{**}$ | .295**      |        |        |      |   |
| 6. FAR    | 11.6(2.7)  | 128    | .219** | .677**      | $.206^{**}$ | .293** |        |      |   |
| 7. NATA   | 14.2(2.2)  | .060   | .056   | $.478^{**}$ | .100        | .237** | .122   |      |   |
| 8. IIC    | 12.1(2.4)  | 032    | 016    | .666***     | $.177^{*}$  | .339** | .421** | .134 |   |

Table 3: Relation between ACE, SB, CG, STO, NOE, FAR, NATA & IIC

*Note*: Adverse childhood experience (ACEs),Self-Blaming(SB), Criminogenic Cognitions Scale(CCS), Short Term Orientation(STO),Notions of Entitlement (NOE),Failure of Accept Responsibility(FAR),Negative Attitudes Towards Authority(NATA), Insensitivity to Impact of Crime(IIC).

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

A Pearson correlation coefficient was calculated to evaluate the relationship between the study variables. The results indicate that SB is negatively correlated with ACE (r = -.222, p < .01), suggesting that as SB increases, ACE tends to decrease. CG shows a strong positive correlation with STO (r = .577, p < .01) and NOE (r = .705, p < .01), indicating that increases in CG are associated with increases in STO and NOE. FAR is also positively correlated with SB (r = .219, p < .01), CG (r = .677, p < .01), and NOE (r = .293, p < .01), suggesting that as FAR increases, so do these variables. The correlation between IIC and CG (r = .666, p < .01) and NOE (r = .339, p < .01) further supports this pattern of positive relationships among the variables. However, several correlations, such as those between ACE and most other variables, were not significant, indicating no strong linear relationship in these cases.

|                | STO    |       |      |                         |        |
|----------------|--------|-------|------|-------------------------|--------|
| Variables      | Ъ      | SE    | β    | 95% Confidence Interval |        |
|                | Б      |       |      | LL                      | UL     |
| Constant       | 13.369 | 2.045 |      | 9.336                   | 17.402 |
| ACE            | -0.47  | .089  | 039  | 223                     | .129   |
| SB             | .005   | .015  | .024 | 024                     | .034   |
| $\mathbf{R}^2$ | .002   |       |      |                         |        |

Table 3: Regression Analysis of ACE, SB and STO

Simple linear regression analysis was conducted to evaluate the extent to which ACE and SB could predict STO.

A significant regression was not found F (2,197) = .245, p = .783. The R2 was .002, indicating that ACE and SB explained approximately 0.2% of the variance in STO.

| Variables      | NOE    |       |      |                         |        |
|----------------|--------|-------|------|-------------------------|--------|
|                | D      | CE    | β    | 95% Confidence Interval |        |
|                | Б      | SE    |      | LL                      | UL     |
| Constant       | 12.219 | 2.121 |      | 8.037                   | 16.401 |
| ACE            | .011   | .092  | .009 | 171                     | .194   |
| SB             | .004   | .015  | .017 | 027                     | .034   |
| $\mathbf{R}^2$ | .000   |       |      |                         |        |

**Table 4:** Regression Analysis of ACE, SB and NOE

Simple linear regression analysis was conducted to evaluate the extent to which ACE and SB could predict NOE.

A significant regression was not found F (2,197) = .029, p = .971. The R2 was .000, indicating that ACE and SB explained approximately 0% of the variance in NOE.

|                | FAR    |       |      |                         |        |
|----------------|--------|-------|------|-------------------------|--------|
| Variables      | Ъ      | SE    | β    | 95% Confidence Interval |        |
|                | Б      |       |      | LL                      | UL     |
| Constant       | 10.571 | 2.132 |      | 6.368                   | 14.775 |
| ACE            | 110    | .093  | 084  | 293                     | .074   |
| SB             | .043   | .015  | .200 | .013                    | .074   |
| $\mathbf{R}^2$ | .055   |       |      |                         |        |

Table 5: Regression Analysis of ACE, SB and FAR

Simple linear regression analysis was conducted to evaluate the extent to which ACE and SB could predict FAR.

A significant regression was found F (2,197) = 5.684, p = .004. The R2 was .055, indicating that ACE and SB explained approximately 5.5% of the variance in FAR.

| Variables      | NATA   |       |      |                         |        |  |
|----------------|--------|-------|------|-------------------------|--------|--|
|                | D CE   | CE    | β    | 95% Confidence Interval |        |  |
|                | Б      | SE    |      | LL                      | UL     |  |
| Constant       | 11.942 | 1.781 |      | 8.430                   | 15.455 |  |
| ACE            | .081   | .078  | .076 | 072                     | .234   |  |
| SB             | .013   | .013  | .073 | 013                     | .038   |  |
| $\mathbf{R}^2$ | .009   |       |      |                         |        |  |

Table 6: Regression Analysis of ACE, SB and NATA

Simple linear regression analysis was conducted to evaluate the extent to which ACE and SB could predict NATA.

A significant regression was not found F (2,197) = .856, p = .427. The R2 was .009, indicating that ACE and SB explained approximately 0.9% of the variance in NATA.

|                | IIC    |       |     |                         |        |
|----------------|--------|-------|-----|-------------------------|--------|
| Variables      | Ъ      | SE    | 0   | 95% Confidence Interval |        |
|                | D      |       | р   | LL                      | UL     |
| Constant       | 13.210 | 1.965 |     | 9.334                   | 17.086 |
| ACE            | 044    | .086  | 037 | 213                     | .125   |
| SB             | 005    | .014  | 024 | 033                     | .023   |
| $\mathbf{R}^2$ | .002   |       |     |                         |        |

Table 7: Regression Analysis of ACE, SB and IIC

Simple linear regression analysis was conducted to evaluate the extent to which ACE and SB could predict IIC.

A significant regression was not found F (2,197) = .155, p = .857. The R2 was .002, indicating that ACE and SB explained approximately 0.2% of the variance in IIC.

#### 5.1 Summary of the Findings

The reliability analysis was performed and the reliability of each scale was significant >0.5. The Correlation analysis showed no significant relation between the variables. However, the regression analysis showed that there was a significant relation that was found with a subscale Failure of Accept Responsibility (FAR) of Criminogenic Cognitions Scale (CCS) with regard to independent variables.

### 6. **DISCUSSION**

The aim of this current study was to identify the correlation between adverse childhood experiences, selfblaming and criminogenic cognitions in undergraduate students. The 3 scales that were used in this research to measure the relations was adverse childhood experience, self-blaming and criminogenic cognitions. The Criminogenic Cognition Scale has a subscales. There are few studies that have been conducted to show the tendency of criminal thinking in university students. The study also did not reveal a significant association between ACES, self-blame and criminogenic thinking among the university students involved in the study outcome. There could be a few reasons for this and these are as follows:

First of all, the culture and the society of the country Pakistan could greatly influence how such experiences might be received and in turn affect a person. Strong families and community support in Pakistan might prevent the ACEs, such as developing the thinking that leads to criminality. These cultural factors may also decrease the 'self-blame attitude' which, in turn, does not directly imply a link and explain why there was no association with criminogenic thinking.

Second, it is possible that the presented group of students is not representative of the general population of students. University students, despite the potential that they may have had a terrible childhood, are very likely to have better strategies for managing stress and more recourse to institutional support to do so, thus reducing their likelihood of developing criminogenic thinking.

Also, while testing the study hypotheses, we had to use instruments to measure ACEs, self-blame, and criminogenic thinking that may not reflect the appropriate cultural norms of Pakistan. As such, they might not have captured the real spirit of the students in this study.

There is also the likelihood that students with ACEs might have adopted healthy coping strategies that may have minimized or moderated the ACE's influence on their cognitive processes.

Finally, one needs to introduce some potential limitations of the present research. Although the number of students that we have studied may be adequate to begin with, it may not itself had been sufficiently large enough to determine these intricate relations. Also, because of the target population we only surveyed university students, therefore the results of the study may not hold for everybody.

While the study didn't establish the proposed associations, the study is evidence that, culturally and locally, deciding on ACEs is possible. Future research should compare another group or use more sample sizes to examine these intricate relations.

However, there was research that supported this study and according to research which was conducted on college students, showed that criminal thinking was present in students. The findings of that research create a link between criminogenic cognitions, negative emotions and problematic behavior in college students and also emphasizes on the significant implications for mental health interventions aimed at enhancing the psychological health and academic performance of college students (Mandracchia & Pendleton, 2015).

### 7. CONCLUSION

The research was conducted with the objective to understand how adverse childhood experience and selfblaming can lead to criminogenic cognitions. The findings show that there is a negative correlation among the variables that are adverse childhood experience (ACEs), Self-Blaming (SB) and Criminogenic Cognitions Scale (CCS). It means that there is less likelihood that adverse childhood experience and selfblaming can cause criminogenic cognitions in students. However, there was a significance that was found with a subscale Failure of Accept Responsibility (FAR) of Criminogenic Cognitions Scale (CCS) with regard to independent variables.

### 7.1 Limitations

- The study relied solely on self-report measures, which may be subject to response biases.
- Social desirability bias might have influenced participants responses particularly in a cultural context where discussing personal or family issues can be stigmatized which could result in underreporting of ACEs or self-blaming.
- Sample was limited to university students in Pakistan which limited the generalizability.

#### 7.2 Suggestions

- Further researches could be conducted to see how these relationships develop or change, helping to have a better understanding.
- Combining surveys with interviews could give a clearer understanding on how childhood experiences influence thoughts and behaviors.

### 7.3 Implications

- Universities can create programs to help students who had a tough childhood which focused on changing the negative thinking patterns to prevent future issues.
- Universities can offer specialized counseling sessions for such students to help them cope better.
- Universities can partner with different mental health organizations to provide additional resources and support to students.

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#### **Conflict of Interest**

Authors declared NO conflict of interest.

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