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# THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND NON-SUICIDAL SELF-INJURY: EMOTION DYSREGULATION AS A MEDIATOR

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## ABSTRACT

*This study aimed at exploring the link between childhood trauma and non-suicidal self-injury, with a particular emphasis on investigating the role of emotion dysregulation as a mediator. A sample of 267 young adults with ages between 18 to 35 years (M=22.86, SD=2.45) were recruited from universities in Islamabad. The Childhood Trauma Questionnaire (Bernstein, 1994), Emotion Regulation Scale (Gratz & Roemer, 2004), and Non-Suicidal Self-Injury Assessment Tool (Whitlock, 2014) along with Demographic Information Sheet were used. The results of the study reveal that childhood trauma significantly predicted non-suicidal self-injury. Further, emotion dysregulation served as a mediator between childhood trauma and non-suicidal self-injury. This suggests that adults with a history of childhood trauma may experience difficulties in regulating their emotions, predisposing them to engage in non-suicidal self-injury. The implications of this study highlight the importance of addressing emotion dysregulation in prevention and treatment interventions.*

***Keywords:*** *Childhood, Trauma, Non-Suicidal Self-Injury, Emotion Dysregulation*

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## INTRODUCTION

Non-suicidal self-injury (NSSI) is defined as the intentional self-directed harm or modification of bodily tissue without any intention of suicide (Hamza et al., 2012). The NSSI by definition involves behaviors i.e. cutting own self through any instrument, rubbing or scratching the skin to the point it starts bleeding , banging the head, hurting oneself by beating or hitting, try to prevent injuries and wound from cure or healthy again. The NSSI is estimated to prevail in early adolescents ranging from 13 to 23 percent within a community (Gonzales & Bergstrom, 2013), young adults or teenagers receiving medical care for mental health issues (Preyde et al., 2012) and in girls as compared to boys (Victor, 2018). Evidences reveal that those who engage in chronic self-harming behavior or activities have a higher risk of suicide than people who do not (Whitlock & Knox, 2007). It has been observed that even after adjusting for prior suicide attempts and baseline depression, there is still a chance that non-suicidal self-injury is associated with a seven-fold increase in the likelihood of suicide attempts (Asarnow et al., 2011).

The childhood trauma is widely acknowledged to constitutes a distinct risk to non-suicidal self-injury (Liu et al., 2018; Wan et al., 2015. The childhood trauma inflicted on a child physically, emotionally, or sexually leaves children with lifelong physical and psychological scars (Xie et al., 2023). The primary causes of a wide range of emotional and psychological problems, including post-traumatic stress disorder, mood-related conditions like sadness, anxiety, and hopelessness as well as non-suicidal self-injury, which can persist into adolescence and adulthood, are childhood traumas (McKay et al., 2021).

Those who have gone through trauma could find it difficult to make friends, which makes them feel lonely and alone. People use self-harm as a coping mechanism for intense emotions or to feel in control of their suffering (Chen-Bouck & Patterson, 2015; Klonsky, 2007). Self-harming behaviors might momentarily numb or help people avoid emotional suffering. In extreme circumstances, trauma raise the possibility of suicidal ideas or deeds (Witt et al., 2020). The NSSI may be used by certain adolescents who have been abused as children to help them deal with their emotions or regain control (Park, In &Hurr, 2022). Studies evidenced that childhood neglect, in which parents or other adults fail to offer a child the necessary emotional or physical care, cause emotions of emptiness, worthlessness, and self-blame. They find the non-suicidal self-injury behavior useful as a coping mechanism for these feelings (Zheng et al., 2023).

Adolescents' ability to regulate their emotions is significantly impacted by childhood trauma which result in NSSI. The capacity to comprehend, control, and react to emotions in an appropriate manner is referred to as emotion regulation. People's ability to acquire healthy emotional regulation skills might be hampered by childhood trauma which eventually increases their risk of using NSSI as a maladaptive coping mechanism (Lloyd et al., 1997). Trauma produces powerful, difficult-to-control feelings that are intense and overwhelming. Children who encounter trauma do not develop appropriate coping mechanisms for dealing with strong emotions, and when they mature as adolescents and adults, they turn to self-harm as a means to cope with their powerful emotions or relieve their emotional anguish (Zhu et al., 2014). Negative self-belief and feelings of worthlessness are resulted from childhood trauma. Teenagers who have a negative self-concept utilize NSSI as a kind of self-punishment or to support that negative self-concept (Kim & Lee, 2018). In order to shield themselves from intense emotions, some trauma survivors' adolescents disassociate from or numb themselves from feelings. Inability to recognize and express feelings as a result of this emotional detachment contributes to NSSI as a way to "feel something" or reestablish a sense of self. Trauma results in emotional flashbacks, when old feelings reappear in reaction to triggers, leaving the sufferer feeling helpless and out of control. The NSSI could be utilized by adolescents to try to keep your feet on the ground when experiencing such emotional recollections (Holden et al., 2022).

According to the Diathesis-Stress Model, external stressors like childhood trauma and personal susceptibility characteristics like emotion dysregulation interact to affect the occurrence of non-suicidal self-injury (Nock, 2010). It implies that the interplay of innate vulnerabilities (diathesis) and external stresses affects the link between childhood trauma and non-suicidal self-injury. Childhood trauma functions as a significant stressor by triggering pre-existing vulnerabilities including emotional dysregulation and raising the likelihood that an individual may engage in non-suicidal self-injury as a maladaptive coping mechanism (Linehan, et al., 1993). This theoretical framework acknowledges the complex interactions between adult non-suicidal self-injury, emotional dysregulation, and childhood trauma (Linehan et al., 1993).

Summing up, childhood trauma, which includes various types of abuse, neglect, and maltreatment encountered throughout early developmental stages, is one element that has attracted a lot of attention regarding non-suicidal self-injury. Numerous studies in Western countries have repeatedly shown a high correlation between traumatic experiences as a kid and non-suicidal self-injury in adulthood.

People who have undergone abuse or mistreatment as children are more likely to engage in self-destructive behaviors. Adults are particularly at risk because it is linked to a number of detrimental outcomes and a higher chance of engaging in suicide behaviors (Brunner et al., 2021). There is substantial evidence coming from Western studies about the risk factors to NSSI. This area is underresearched in the context of Pakistani culture. In particular, the relationship between childhood trauma and NSS through emotion regulation needs to be investigated because understanding the underlying causes of non-suicidal self-injury is crucial to developing effective indigenous preventative and intervention strategies. In this context, the objective of this study was to investigate the relationship between childhood trauma and non-suicidal self-injury (NSSI), with a focus on identifying emotion dysregulation as a potential mediator.

## METHOD

### *Participants*

A correlational research design was used. The study was conducted on male and female young adults with ages ranging from 18-35 years ($M$=22.86, $SD$=2.45) recruited using purposive sampling technique from different universities of Islamabad. The participants with minimum undergraduate qualification were included. Participants who were below the age of 18 and above 35 years were excluded from the study. Participants who refrained from engaging in non-suicidal self-injury for the past two years were not included. Participants who did not give consent and were diagnosed with another mental disorder were also excluded.

### *Measures*

#### Demographic Information Sheet

The demographic Information Sheet was self-designed to collect pertinent demographic information from the participants as per the set inclusion and exclusion criteria for the present study.

#### Childhood Trauma Questionnaire-Short Form

The Childhood Trauma Questionnaire-Short Form (CTQ-SF) developed by Bernstein (1994), a self-report questionnaire consisting of 28 items was employed to assess childhood trauma. It comprises five subscales: *(1) Physical*

*abuse:* This subscale consists of 5 items and gauges the occurrence of physical harm or injury inflicted by caregivers or other significant individuals, encompassing actions like hitting, slapping, or kicking; *(2) Emotional abuse:* It consists of 5 items that quantify the degree to which individuals experienced psychological maltreatment during their childhood, such as enduring verbal attacks, humiliation, or consistent criticism; *(3) Sexual abuse:* It consists of 5 items that explore experiences of unwanted sexual contact or exposure, including both non-contact forms of abuse (e.g., voyeurism) and contact abuse (e.g., fondling, penetration); *( 4) Physical neglect:* It included 5 items that evaluate the deprivation of fundamental physical care and essentials, such as sufficient food, shelter, clothing, and access to medical attention, during childhood; and *(5) Emotional neglect:* This subscale consists of 5 items to assess the absence of emotional support and nurturing from caregivers, reflecting a deficiency in love, affection, and emotional availability during critical developmental stages. Additionally, the questionnaire incorporates a scale for minimalization/denial, designed to identify individuals who might be minimizing or denying their experiences of traumatic events. The participants responded their experiences on a five-point Likert scale: (1) never true, (2) rarely true, (3) sometimes true, (4) often true, and (5) very often true. Scores range from 5 to 25, respectively representing the lowest to highest traumatic experiences. The childhood trauma questionnaire – short form has good internal consistency ($\alpha$ = .85).

**Difficulties in Emotion Regulation Scale**

Difficulties in Emotional Regulation Scale (DERS) is developed by Gratz and Roemer (2004). It is validated and reliable assessment tool designed to measure the individual difficulties experienced due to emotional regulation. It consists of 36 items divided over 6 subscales: (1) Nonacceptance of emotional responses; (2) Difficulty engaging in goal-directed; (3) Impulse control difficulties and (4) Lack of emotional awareness; (5) Limited access to emotion regulation strategies; (6) Lack of emotional clarity

Scores are presented as a total score as well as a score for each of the 6 subscales along with reverse scoring for some items (1, 4, 6, 7, 11, 15, 19, 24, 27, 28, 30, 34) of scale. Participants with high scores (above 127) on the scale have greater difficulty in regulating emotions. The DERS has a satisfactory internal consistency with Cronbach's alpha coefficient of .70.

### Non-Suicidal Self-Injury Assessment Tool

The Non-Suicidal Self-Injury Assessment Tool (NSSI-AT) was constructed by Whitlock (2014) to assess both primary and secondary non-suicidal self-injury features. It is comprised of 12 subscales and 39 items as a whole. In the present study, following subscales out of 12 are used to discover the following behavior of non-suicidal self-injury. (a) Screening questions based on behavior (self-injury forms), (b) Functions, (c) Recency and frequency, (d) Age of onset, (e) Wound locations, (f) Practice patterns, and (g) Habituation and perceived life interference: in their life as a measure of perceived interference with daily functioning. The NSSI-AT sub-scale requires 15-20 minutes, and its Cronbach's alpha coefficient (.90) shows the excellent internal consistency of the scale.

### *Procedure*

Ethical approval was attained from the Preliminary Ethical Research Committee of the department. After receiving an ethical approval letter, NOC (No Objection Certificate) was issued from the Head of the department, Department of Clinical Psychology. Different universities of Islamabad and Rawalpindi were visited with permission letters to collect data. The concerned authorities of these universities were presented with information on current research.

Later, young adults were approached and debriefed about the objectives of the study and participants who gave consent were asked to fill out the following questionnaires i.e. Childhood Trauma Questionnaire-Short Form, Difficulty in Emotion Regulation Scale, and Non-Suicidal Self-Injury Assessment Tool. Participants' queries regarding any difficulty were resolved. Clear instructions were provided to ensure participants understood the question and response option. Upon completion of data collection, bot the authorites of respective instituitions and the participants were thanked for their support and time.

### *Statistical Analysis*

For statistical analyses of the data, descriptive statistics for demographic information and Pearson correlation to examine the intercorrelation among study variables were used. Linear regression and Process Macro (Model 4) were employed to test the assumptions of the study. All the analyses were performed using Statistical Package For Social Sciences (SPSS, V 26.0)

## RESULTS

Table 1
*Psychometric Properties of the Scale and Subscales*

| Scales | *M* | *SD* | *Range* | $\alpha$ |
|---|---|---|---|---|
| Childhood Trauma Questionnaire | 64.17 | 17.26 | 25-125 | .88 |
| Difficulty in Emotion Regulation Scale | 126.29 | 25.5 | 36-180 | .91 |
| Non-Suicidal Self-Injury Assessment Tool | 87.12 | 68.40 | - | .99 |

Table 2
*Intercorrelations between Childhood Trauma Questionnaire, Difficulty in Emotion Regulation Scale and Non-Suicidal Self-Injury Assessment Tool (N=267)*

| Variables | 1 | 2 | 3 |
|---|---|---|---|
| 1. Childhood Trauma Questionnaire | 1.00 | | |
| 2. Difficulty in Emotion Regulation Scale | .21* | 1.00 | |
| 3. Non-Suicidal Self-Injury Assessment Tool | .55* | .38* | 1.00 |

*$p$ <.05

Table 3
*Descriptive Statistics forParticipants' Demographic Characteristics (N=267)*

| Variables | *f* | % |
|---|---|---|
| Gender | | |
| Male | 101 | 37.8 |
| Female | 166 | 62.2 |
| Birth Order | | |
| First | 113 | 42.4 |
| Middle Born | 81 | 30.3 |
| Last Born | 73 | 27.3 |
| Ethinicity | | |
| Punjabi | 73 | 27.3 |
| Pakhtoon | 79 | 29.6 |
| Sindhi | 46 | 17.2 |
| Kashmiri | 55 | 20.6 |
| Balochi | 14 | 5.2 |
| Socio-economic Status | | |
| Upper | 114 | 42.7 |
| Middle | 153 | 57.3 |
| Father's Occupation | | |
| Businessman | 96 | 36.0 |
| Government Sector | 64 | 24.0 |
| Education Sector | 27 | 10.1 |
| Health Sector | 61 | 6.0 |
| Armed Forces | 19 | 7.1 |
| Mother's Occupation | | |
| Housewives | 195 | 73.1 |
| Education Sector | 54 | 20.2 |
| Self-employed | 18 | 6.7 |
| | *M* | *SD* |
| Age | 22.86 | 2.45 |

Table 4
*Linear Regression Analysis with Childhood Trauma as Predictor of Non-Suicidal Self-Injury*

| Predictor | *B* | *SE* | *β* | $R^2$ | *F* | *Sig.* |
|---|---|---|---|---|---|---|
| Constant | -43.2 | 12.81 | | | | |
| Childhood Trauma | 2.08 | .19 | .55 | .31 | 116.37 | .00* |

*$p<.05$

Table 5
*Linear Regression Analysis with Emotion Dysregulation as Predictor of Non-Suicidal Self-Injury*

| Predictor | *B* | *SE* | *β* | $R^2$ | *F* | *Sig.* |
|---|---|---|---|---|---|---|
| Constant | -32.17 | 18.63 | | | | |
| Emotion Dysregulation | .97 | .15 | .38 | .15 | 44.94 | 00* |

*$p<.05$

Table 6
*Linear Regression Analysis with Childhood Trauma as Predictor Emotion Dysregulation*

| Predictor | *B* | *SE* | *β* | $R^2$ | *F* | *Sig.* |
|---|---|---|---|---|---|---|
| Constant | 106.15 | 5.90 | | | | |
| Childhood Trauma | .31 | .09 | .21 | .05 | 12.50 | 000 |

*$p<.05$

Table 7
*Model Analyses for Emotion Dysregulation as Mediator in the Relationship between Childhood Trauma and Non-Suicidal Self-Injury*

| | | | *95% CI* | | | |
|---|---|---|---|---|---|---|
| Model | *B* | *SE* | *LL* | *UL* | *t* | *p* |
| Childhood Trauma | 1.86 | .19 | 1.49 | 2.23 | 9.94 | .00* |
| Emotion Dysregulation | .703 | .13 | .454 | .952 | 5.56 | .00* |

*$p < .05$

Table 8
*Indirect Effects of Emotion Dysregulation on Non-Suicidal Self-Injury*

| | | | *95% CI* | |
|---|---|---|---|---|
| Model | *Effects* | *SE* | *LL* | *UL* |
| Emotion Dysregulation | .221 | .08 | .083 | .400 |

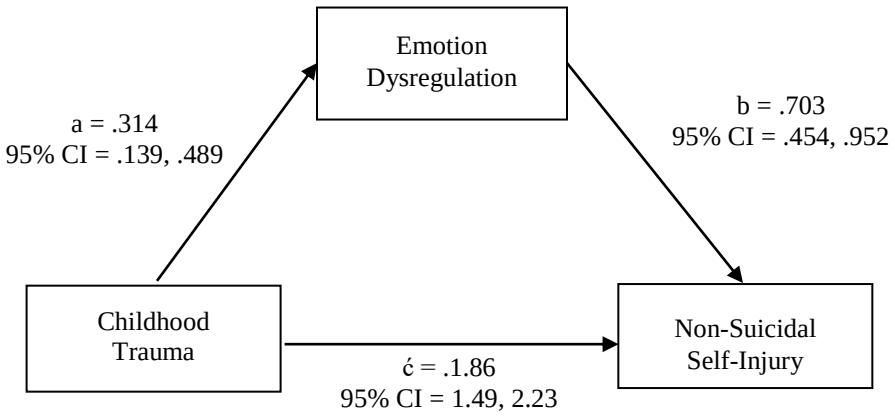


**Figure 1.** Mediation Model of Emotion Dysregulation (M) in the relationship between Childhood Trauma (X) and Non-Suicidal Self-Injury

## DISCUSSION

The current study focused on ascertaining the link between childhood trauma and adult non-suicidal self-injury as well as the role of emotional dysregulation as a potential mediator between this link.

Pertaining to link between childhood trauma and non-suicidal self-injury (NSSI), the results indicate that childhood trauma significantly predicted non-suicidal self-injury among young adults (Table 4) accounting for 30% variance. These findings signify a notable link between childhood trauma and a higher predisposition to engage in non-suicidal self-injury later in life. These findings align with the vast corpus of studies which continuously demonstrated a strong correlation between childhood trauma and the risk of adult mental health problems, such as non-suicidal self-injury (Hou et al., 2023). Given the harmful effects of childhood trauma on emotional regulation, those who have experienced trauma may find it difficult to effectively manage and control their emotions (Shor et al., 2014). The inability to control one's emotions might therefore lead to non-suicidal self-injury becoming a maladaptive coping strategy. Various environmental elements that can cause stress and hinder good emotions. Chronic stress is exacerbated by the disruption of emotion regulation abilities and increases the risk of engaging in non-suicidal self-injury (Wang et al., 2022). Other factors that contribute to chronic stress include family dynamics, socioeconomic disadvantages, peer interactions, school environments, and broader societal influences.

Further results unveiled a significant predictive relationship between emotion dysregulation and NSSI (Table 5). These findings corroborate with the findings from studies that elevated levels of emotion dysregulation contribute to an increased likelihood of engaging in non-suicidal self-injury (Emery et al., 2016; Fox et al., 2015; Kranzler et al., 2016; Wolff et al., 2019). These findings may be explained in terns of experiential avoidance model (Champman et al., 2006). This model view NSSI serving the function of escape or avoidance from undesired emotional arousal. Individuals who self-harm report feeling upset and powerless just before doing it (Kakhnovets et al., 2010; Polk & Liss, 2009), and self-harming behavior gives them a sense of control over their feelings and thoughts and free them from intense emotional pain (Klonsky, 2007; Taylor et al., 2017). Thus, the key factor sustaining NSSI is negative reinforcement, which comes from avoiding or running away from unpleasant emotional situations.

Moreover, results reveal a significant predictive relationship between childhood trauma and emotion dysregulation (Table 6). These findings are consistent to the findings from existing literature in this context (Dvir et al., 2014; Gratz & Roemer, 2008). It has been posited that formation of secure attachment is cruicial for the development of adaptive emotion regulation skills. Experiences of repeated trauma can disrupt the establishment of stable internal representations, which can seriously jeopardize a child's development of emotional regulation skills (Burns et al., 2010; Ford, 2005; Pollak et al., 2000).

Furthermore, pertaining to the meditational role of emotion dysregulation between childhood trauma and NSSI, the results (Table 7 & 8, Fig. 1) reveal that emotion regulation partially mediated the relationship between childhood trauma and NSS. These findings are partially consistent to findings of the studies which have provided evidence for a mediated relationship, suggesting that emotional dysregulation acts as a mediator between childhood trauma and non-suicidal self-injury (Andersson et al., 2022; Guérin-Marion et al., 2020; Thomassin et al., 2016). It has been posited that one of the underlying developmental process by which childhood trauma affects functioning throughout life is the emotion dysregulation (Kerig, 2020). As one's emotion regulation skill determine how one processes and regulates emotional responses to different happenings in life. Individuals with childhood trauma experiences are less likely to have adaptive emotion regulation skills, hence they are more prone to turn to NSSI as a coping mechanism for intense and painful emotions.

In summing up, these findings imply the critical importance of recognizing and addressing childhood trauma as a risk factor in understanding and mitigating non-suicidal self-injury among young adults while taking into consideration the relative role of emotion dysregulation. These findings have important implication as these suggest that pevetion interventions should aim to focus on helping individuals to recover from early life traumas, to improve their emotion regulation skills by understanding and managing emotions.

Despite the fact that the study offers insightful information about the connection between childhood trauma, emotion dysregulation, and non-suicidal self-injury among young people in Pakistan, it is important to consider its limitations. The study used a cross sectional research design and focused on adult population only. Future research may employ diversified sample and people from various age groups and cultural situations in order to enhance the relevance of the findings to a wider population. Utilizing longitudinal study designs can also aid in

establishing temporal connections and causal relationships, providing stronger evidence. Future study should be done in various cultural contexts in order to account for the influence of cultural elements. Involving parents or other caregivers in studies might also be advantageous. Their opinions can contribute to a better understanding of adult emotional dysregulation behaviors by providing extensive information about childhood trauma experiences.

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