Chapter

Sexual Abuse in Childhood: Emerging Syndromes in Adulthood

Angélica Quiroga-Garza and María José Almela-Ojeda

Abstract

The high prevalence in Mexico of both child sexual abuse and emerging psychopathological syndromes in adulthood, particularly post-traumatic stress disorder, self-injurious behavior, and suicide, makes it necessary to investigate in greater depth the relationship between these circumstances. The findings on the incidence in Mexico and the interaction of these variables would make it possible to propose public policies with scientific support for the protection of children and to design intervention programs for adult victims of child abuse at risk due to psychopathological symptoms. To understand the interaction of child abuse events and adult emerging syndromes in the Mexican population, we conducted quantitative, correlational-comparative research. The findings have implications for clinical and social practice. It is necessary to continue working with families, carrying out preventive measures for all forms of domestic violence (physical, sexual, economic, negligence) that cause intentional harm to the children who suffer it, and its consequences remain until adult life.

Keywords: child sexual abuse, post-traumatic stress disorder, self-injurious behavior, suicide

1. Introduction

In 2006, the World Health Organization (WHO) launched the World Mental Health Survey Initiative whose results suggested that 30% of all mental disorders in adults were related to adverse childhood experiences (ACE) [1]. Exposures to personal abuse and neglect before the age of 18 are known as childhood trauma [2]. Psychological trauma arises when a painful event exceeds the coping skills of the person who experiences it [3]. The traumatic experience can be a single event or frequently repeated events [4, 5], such as in chronic victimization. Anticipation and fear can trigger defense mechanisms such as dissociation, resulting in greater difficulty remembering the trauma [5]. So, if traumatic events occur in children's early life, particularly before the age of five—a critical developmental period—they impact mental health and well-being throughout life [6–10].

In this regard, since 2016, Mexico has been ranked first worldwide in sexual abuse, physical violence, and homicide of children under 14 years of age with 5.4 million cases per year, being only 2% of the cases reported at the time, the rest they are known after years of abuse [11]. Although a direct and reliable source on the real

numbers on this problem is considered non-existent since innumerable cases are not reported [12]. This situation has become a public policy problem in Mexico. Hence the importance of further investigating the relationship between emergent psychopathological syndromes in adulthood and traumatic events in childhood, particularly child sexual abuse.

The high prevalence in Mexico of both child sexual abuse and emerging psychopathological syndromes in adulthood, particularly post-traumatic stress disorder, self-injurious behavior, and suicide, makes it necessary to investigate in greater depth the relationship between these circumstances. The findings on the incidence in Mexico and the interaction of these variables would make it possible to propose public policies with scientific support for the protection of children and to design intervention programs for adult victims of child abuse at risk due to psychopathological symptoms.

2. Child sexual abuse and emerging psychopathological syndromes in adulthood

The prevalence of child sexual abuse (CSE) is close to one in 10 children worldwide [13]. In Mexico, more than 50,000 minors are victims per year [14] and less than 10% of what really happens in the country is reported [15]. There are several social reasons for not doing so, p.e., the authorities in charge of receiving the reports take a long time to start an investigation file, most people distrust authority, and the procedures are usually long hindering and even re-victimizing the person [16].

There are some other reasons regarding the victims. Boys and girls do not fully understand what happened, and it is difficult for them to communicate the event and usually, they simply know that it has caused them discomfort or has hurt them but do not know that is not something unacceptable but a crime [15, 17]. They also tend to keep it a secret out of fear, guilt, and shame. When CSE occurs, the word of an infant turns against that of an adult, and when there is insufficient evidence, most are not reported [18].

CSE is evidenced by sexual activity between a child and an adult or another child who by age or development is in a relationship of responsibility, trust, or power, with the intention to gratify or satisfy the needs of the other person and the child is unable to give informed consent to, or is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society [19]; that is, the minor is forced to have sexual contact and/or any sexual conduct, such as watching and listening to pornography or displaying the genitals [20]; it is considered one of the most severe forms of violence and a serious violation of the rights of children and adolescents, with devastating consequences for the victims, their family, and the community [15].

If these traumatic events occur early in the vulnerable and critical developmental period before the age of five [21, 22], they interfere with normative development, generating sequelae that impact mental health and well-being, emerging during adulthood and persisting throughout life in different ways [2, 6–10, 23, 24].

Sequelae associated with CSA refer to emotional problems [9, 25–27]; borderline personality disorder [28, 29]; antisocial behavior problems, increasing the risk of criminal behavior [30–32]; post-traumatic stress disorder (PTSD) [33–35]; personality disorders in adult life [36–38]; and a clear association with suicidal ideation, self-injurious behavior and suicide attempt in adulthood [39–45].

2.1 Self-injurious behavior

Self-injurious behavior (SIB) is considered any deliberate self-directed behavior that causes immediate destruction of body tissues, such as cuts, burns, bumps, and abrasions. SIB is low-lethality and socially unacceptable, used as a coping mechanism for disturbing emotions, with the aim of replacing overwhelming emotional pain with manageable physical pain. Drug overdoses or poisonings with suicidal intent are excluded [46–51].

The age onset is different. Since self-harm with suicidal intent rarely occurs before the age of 15, non-suicidal SIB tends to start at younger ages [46, 52–54]. Although this behavior occurs mostly in adolescence, there is still a significant group of young adults who maintain the behavior [55].

At present, there is a debate about whether self-injurious behavior has the intention of death. According to the Statistical and Diagnostic Manual of Mental Disorders, Fifth Edition [56], self-harm is formally known as a nonsuicidal self-injury disorder (NSSID) as these self-destructive behaviors are carried out without any intention of suicide. Some researchers posit that SIB serves as a mechanism for self-relief and the release of tensions without the desire to die [57–59] Other surveyors emphasize the relationship between self-harm and suicide since data reveals that self-harm is the main risk factor for suicide attempts [60–62].

On this regard, in SIB with suicidal intent the individual seeks isolation, has little or no social interaction, and does not seek to belong or participate in a group; someone with non-suicidal SIB does seek to relate to others who understand and even share his or her feelings and behaviors and participating in groups that promote self-harm [63]. Two more aspects to consider are that SIB occurs more frequently in women than in men, with skin cuts being the most common method; and women also have a higher risk of suicide than men (3:1), associated with greater feelings of hopelessness and inability to resolve emotional problems [46, 64].

In a recent study, authors have tried to establish the differences between people who engage in NSSI and people who attempt suicide through algorithms, but the results were inconclusive to distinguish between groups with high accuracy [65]. So, more studies are needed particularly in psychological primitives—irreducible fundamental elements of the mind [66, 67]: internal stimuli, external stimuli, and conceptual knowledge, in this case, on emotions related to SIB and suicidal ideation [68].

2.2 Suicide

Far from being an isolated problem, suicide is also on the rise worldwide, with developing countries showing the highest rates (800,000 people per year) [69]. In Mexico (5.4 per 100,000 inhabitants) [70], and particularly in Nuevo Leon (in the first half of 2020, 152 suicides), suicide rates have been increasing [71].

It is important to consider two aspects that could lead people to act out their death wishes: the erroneous perception of burden that their existence harms and hinders others' lives, feeling emotionally and socially disconnected [44, 72–74], and an increase in suffering due to possible traumatic or painful events [75–77] that, for the sake of self-preservation, could live in a constant state of pain, either self-inflicted through self-injurious behaviors or mistreatment of others [74, 78, 79].

Likewise, it is important to keep in mind that people with a single suicide attempt are more likely than people with suicidal ideation to suffer from some type of disorder—depression, anxiety, post-traumatic stress, substance abuse—and usually were

exposed to some type of abuse, whether violent, psychological and/or sexual [80–82]. Similarly, people with multiple suicide attempts have a high rate of family suicide history [83, 84] and childhood emotional abuse, [76, 85, 86]; as well as psychopathological characteristics [87, 88], a higher degree of suicidal ideation [89, 90] and a higher proportion of psychiatric disorders [91, 92].

3. Understanding interaction of child abuse events and adult emerging syndromes in Mexico

To determine the relationship between traumatic events in childhood and the presence of emerging syndromes in adulthood in the Mexican population, quantitative, correlational-comparative research was carried out. Voluntarily, 670 people participated. The age range was between 18 and 77 (M = 28.15, SD = 12.34); 266 (39.7%) men, 399 (59.6%) women, 3 (0.4%) other, 2 (0.3%) did not respond; 258 (38.5%) self-injured.

The study was approved by the Ethical Committee of Psychology School of Universidad de Monterrey (Ref. 19112020-PSI-CI). Data were collected online through approximately 30-min computerized questionnaires using the Qualtrics platform. Only age and gender were considered inclusion criteria. Participants were provided with informed consent and completed a sociodemographic questionnaire and several clinical measures. All participants voluntarily agreed to take part in the study without incentives and were recruited through mailing lists and social networks.

We used some Psychology research measures including a sociodemographic section. We also used the rating scales described below.

Adverse experiences (AE). Based on the 12 dichotomic items of the adverse experiences that occurred before 18 years used in the National Comorbidity Scale-Replication (NCS-R) conducted by Green et al. [7], in this study we included: and then the groups of adverse experience. We included three interpersonal losses (parental death, parental divorce, and parental split-up); four types of family maladaptation (parental mental illness—major depression, generalized anxiety disorder, panic disorder, antisocial personality; parental substance use, parental criminality—robberies, arrests for criminal activity; and violence); three types of maltreatment (physical abuse; sexual abuse—erotic caress, rape intent, rape; and neglect); other children adversities (physical illness risking minor life; economic adversity to cover basic needs; and any adversity). Additionally, we asked for family stability through the number of split-ups (divorces or living with other people). We also asked separately for the biological death of the father and the mother. We also inquire for three different types of sexual abuse. The total number of items was 18.

PTSD Checklist for DSM-5. A 20-item self-report measure based on DSM-5 criteria for PTSD and was created to assess the presence and severity of post-traumatic stress symptoms (PTSD) that cannot be explained or attributed to other conditions, e.g., substance abuse, medical conditions, bereavement, among others [93]. We used the Mexican Spanish adaptation with a satisfactory consistency ($\alpha = .943$) [94]. The items are rated on a Likert-type scale ranging from zero (not at all) to four (totally) and assess symptoms of re-experiencing (e.g., unwanted, and disturbing recurring memories of the stressful experience; $\alpha = .861$); avoidance (e.g., avoiding memories, thoughts, or feelings related to the stressful experience; arousal (e.g., irritable behavior, angry outbursts, or acting aggressively); and cognitive disturbances (e.g., having difficulty concentrating). The severity index ranges from 0 to 80.

Inventory of Statements About Self-Injury (ISAS). The scale is divided into two sections: the first one assesses lifetime frequency of 12 non-suicidal self-injury (NSSI) behaviors performed "intentionally (i.e., on purpose) and without suicidal intent." The behaviors assessed are banging/hitting self, biting, burning, carving, cutting, wound picking, needle-sticking, pinching, hair pulling, rubbing skin against rough surfaces, severe scratching, and swallowing chemicals. Participants are asked to estimate the number of times they have performed each behavior. Five additional questions assess descriptive and contextual factors, including age of onset, the experience of pain during NSSI, whether NSSI is performed alone or around others, and time between the urge to self-injure and the act [95]. In addition, some ad-hoc questions are added, such as the number of self-harms in the last year [96, 97]. We used the Mexican Spanish validated version [98]. The second section is 39 items of self-report grouped into two factors: interpersonal (e.g., reassuring myself) and intrapersonal (e.g., demonstrating that I do not need the help of others), both with adequate internal consistency ($\alpha = 0.88$ and $\alpha = 0.80$, respectively), with three possible Likert-type response categories: zero (not at all relevant), one (somewhat relevant) and two (very relevant). Functions associated with these two NSSI factors include affect regulation, self-punishment, anti-dissociation/feeling generation, anti-suicide, and marking distress in Intrapersonal, while interpersonal boundaries, self-care, sensation seeking, peer bonding, interpersonal influence, toughness, revenge, and autonomy constitute Interpersonal.

Acquired Capability with Rehearsal for Suicide Scale (ACWRSS). A seven-item self-report was developed to capture the key facets of acquired capability for suicide [99]. Items are rated from zero (not at all) to eight (very strongly); higher scores demonstrate an increased risk of suicide [100]. The scale assesses reduced fear associated with death (e.g., Imagining my own death is very scary), increased pain tolerance (e.g., I can tolerate pain much more than I used to), and mental rehearsal of suicide (e.g., It has crossed my mind what it would be like to die). It correlates significantly with previous suicide attempts and nonsuicidal self-harm thoughts and episodes and has excellent non-clinical internal consistency ($\alpha = 0.91$).

Using the statistical package for Social Sciences (SPSS 28v), we first checked if the assumptions were met for all parametric tests conducted. Additionally, descriptive analyzes were carried out to present frequencies and percentages of adverse events in childhood (ACE). We then carried out the reliability analyses of the instruments. In addition, we performed multiple correlation analyses (Pearson's r). We then decided to conduct an exploratory factor analysis of the Adverse Events in Childhood, specifically looking for sexual abuse to carry out predictive and explanatory models based on the interaction of the variables in the study.

3.1 What we found

We initially found that 299 (44.6%) did not experience any traumatic events, but 371 (55.4%) experienced one (109, 16.3%) to 18 (.1%), and of those, 350 (94.3%) participants experience from one to seven adverse events; and 112 (16.7%) more than four adverse childhood event (ACE). In **Table 1,** we present the frequencies and percentages of the adverse events in childhood reported by the participants ($M = 1.71$, $SD = 2.37$). Family instability and biological father death were the most common reported adverse childhood events.

Relationships between variables are shown in **Table 2**. Correlations between variables have shown theoretically expected directions. For instance, Total Adverse

Adverse events in childhood	Frequency	Percentage
IL: Biological father death	104	15.5
IL: Biological mother death	43	6.4
IL: Divorce biological parents	90	13.4
IL: Biological parents' split-up	81	12.1
PM: Mental illness—depression	67	10.0
PM: Mental illness—anxiety	52	7.8
PM: Mental illness—panic attacks	16	2.4
PM: Mental illness—antisocial	16	2.4
PM: Mental illness—bipolar	22	2.2
PM: Mental illness—psychosis	6	0.9
PM: Parental substance abuse	74	11.0
PM: Parental criminality	8	1.2
PM: Violence between parents	94	14.0
M: Physical abuse	48	7.2
M: Sexual abuse—caress	71	10.6
M: Sexual abuse—rape intent	29	4.3
M: Sexual abuse—rape	24	3.6
M: Neglect	32	4.8
Life-threatening respondent childhood physical illness	48	7.2
Extreme childhood family economic adversity	58	8.7
Family instability	110	16.4
Separations (e.g., sending to live with other people/relatives)	55	8.2

Notes: IL = interpersonal loss, PM = parental maladjustment, M = maltreatment. N = 670.

Table 1.
Frequency of adverse events in childhood.

Events correlated positively with all emerging psychopathological syndromes in adulthood. The correlations with ACE from highest to lowest association are PTSD, NSSI Intrapersonal, Preparedness to Suicide, and NSSI Interpersonal. Regarding Preparedness to Suicide, NSSI Intrapersonal is followed by PTSD and NSSI Interpersonal.

Then, we decided to work with the ACE and carried out an exploratory factor analysis (EFA) to group the adverse events once the number of times they occurred was recorded. A six-factor model was driven. First, the Kaiser-Meyer-Olkin sample adequacy index (KMO = 0.834) and Bartlett's sphericity test were calculated, which were statistically significant [$\chi^2(231) = 4018.09$, $p < .001$], indicating the feasibility of performing a factorial analysis. Next, a maximum likelihood analysis with Varimax rotation was performed specifying six factors. Finally, an exploratory factor analysis was performed using the rotated components method given the six-dimensional structure initially considered, which explained 55.76% of the variance, with a large effect size ($\eta^2 = 78.9\%$). The Cronbach's alpha indicated good internal reliability for

Variables	Mean	SD	1	2	3	4
1. Total Adverse Events	1.71	2.37	—			
2. Post-traumatic stress	1.99	0.81	.311**	—		
3. Preparedness for suicide	2.37	2.48	.148**	.389**	—	
4. NSSI interpersonal	0.22	0.35	.083*	.267**	.187**	—
5. NSSI intrapersonal	0.30	0.40	.177**	.425**	.424**	.756**

Note: NSSI = Nonsuicidal Self-Injury
**The correlation is significant at the 0.05 level (bilateral).*
***The correlation is significant at the 0.01 level (bilateral).*

Table 2.
Means, standard deviations, and correlations between variables in the study.

the total scale (α = .829) and each factor: 1 Parents' Mental Health (α = .669); 2 Sexual Abuse (α = .633); 3 Family Violence (α = .650); 4, Family instability (α = .666); 5 Absent Parents (α = .639); and 6 Adversity (α = .615).

As we were particularly interested in sexual abuse implications in adulthood, we used this discriminative factor to determine those participants that experienced sexual abuse in childhood and found 124 (18.5%). Afterward, we conducted a multiple linear regression to determine the predicted value of the variables of sexual abuse, NSSI Interpersonal and Intrapersonal, on Preparedness for Suicide. The results indicated that NSSI and TEPT explained 26.4% of Preparedness for Suicide (**Table 3**).

Based on the results, as sexual abuse practically disappeared in the regression model, we decided to carry out two sequential mediation analyses to examine the interaction of variables using the computational tool macro-PROCESS (model 4, bootstrapping 10,000 samples, 95% CI) statistical program for Social Sciences (SPSS) [101]. For these analytic approaches, initially Sexual Abuse in Childhood was considered as the predictor variable (*X*), with Preparedness for Suicide as the output variable (*Y*), Post-traumatic Stress (*M1*) as the first mediating variable, and NSSI Interpersonal (*M2*) as the sequential mediating variable. The interaction of PTSD and NSSI Interpersonal on the direct effect of Sexual Abuse in Childhood on Preparedness for Suicide (completely standardized indirect effect [0.02, SE 0.007, 95% CI (.011; .037)] (**Figure 1**).

Afterward, a second mediation analysis was carried out considering Sexual Abuse as the predictor variable (*X*) with Preparedness for Suicide as the output variable (*Y*) testing again the same mediators: PTSD (*M1*) as the first mediating variable and NSSI Intrapersonal (*M2*) as the sequential mediating variable. The interaction of PTSD and NSSI Interpersonal on the direct effect of ACE Sexual Abuse on Preparedness

$F_{(4,665)} = 60.892, p < .001, R^2_a = 0.264$				
Predictor variables	**β**	***t***	***p***	**95% *CI***
Sexual Abuse in Childhood	.030	.892	.373	[−.089; .238]
NSSI Interpersonal	−.284	−5.572	<.001	[−2.726; −1.305]
NSSI Intrapersonal	.538	9.919	<.001	[2.685; 4.010]
Post-traumatic Stress	.231	6.218	<.001	[.485; .933]

Table 3.
Predictive regression model for Preparedness for Suicide of participants (n = 670).

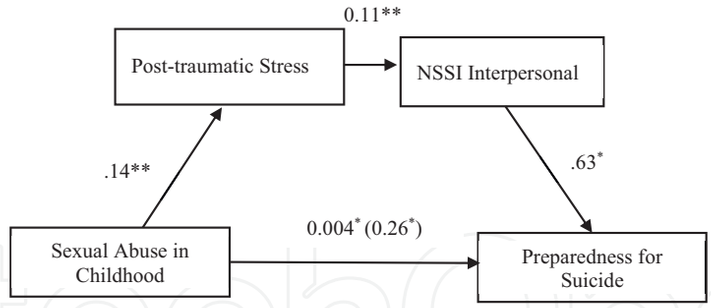

Figure 1.
*Sequential mediation analysis of Post-traumatic Stress (serial mediator 1) and NSSI Interpersonal (serial mediator 2) in the relation between Sexual Abuse in Childhood and Preparedness for Suicide. Direct effects after including the mediator are in brackets. ** p ≤ 0.001; * p ≤ 0.05.*

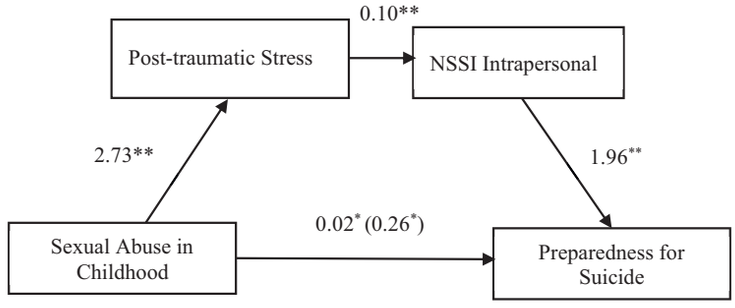

Figure 2.
*Sequential mediation analysis of Post-traumatic Stress (serial mediator 1) and NSSI Intrapersonal (serial mediator 2) in the relation between Sexual Abuse in Childhood and Preparedness for Suicide. Direct effects after including the mediator are in brackets. ** p ≤ 0.001; * p ≤ 0.05.*

for Suicide predicts a strong indirect effect (completely standardized indirect effect [0.02, SE 0.007, 95% CI (.011; .037)] (**Figure 2**).

4. Conclusions

Several important findings arose from our study. Considering that we were looking for emerging psychopathological syndromes in adulthood, particularly post-traumatic stress disorder, self-injurious behavior, and suicide risk when people are exposed to adverse events in childhood, particularly sexual abuse.

In this general population research, we found that 55.4% had at least one adverse childhood experience (ACE) and 94.3% of participants experienced from 1 to 7 adverse events, and 16.7% suffered more than 4 ACE. This data is close to 61% with at least one ACE and 16% that had four or more types (one in six adults) [102] so preventing early trauma is imperative.

In this Mexican sample, family instability (110, 16.4%) and biological father death (104, 15.5%) were the most common reported ACE, both having enduring health consequences across the life span. Family instability captures changes in family structure [103] and father's death—5% [104] in the UK, 4.5% [105, 106] in Denmark—diminishes personal mastery such as vision, purpose, commitment, belief, and self-knowledge—[107]. Additionally, losing at least one parent by the age of 15, 21.9% in our study is close to the 20% reported in China, Italy, and the Netherlands [108, 109]

associated with serious consequences in adjustment, particularly in behavioral problems, and negative implications in cognitive and educational outcomes [106, 107].

As the association of sexual abuse is often found related to self-injurious and suicidal behavior, we conducted a linear multiple regression model and found NSSI Interpersonal and Intrapersonal predict them [110]. NSSI Interpersonal is negatively predicting preparedness for suicide which could be explained due to the social functions of this outward expression of distress and emotional pain that provides others' support, help-seeking and caring response, and fitness; generate excitement; and stop both, suicidal thoughts and feeling numb [111–114]. NSSI Intrapersonal positively predicted preparedness for suicide. This has also been reported in several studies related to future repetition of self-harm and prospective risk for suicide attempts [110–112, 115, 116]. This happens because sexual abuse is a form of child maltreatment strongly associated with suicidality [117, 118]. PTSD also predicted preparedness for suicide-related to different ACE, particularly sexual abuse [119–122].

In relation to the current debate about self-harm, these findings allow us to consider that effectively NSSI Interpersonal may be a deliberate way of harming oneself without the desire to die [57–59]; however, the NSSI Intrapersonal significantly predicts preparation for suicide, which indicates that this factor of self-injurious behavior is associated not only with suicidal thoughts [55, 123–126], but also to preparedness and attempt, possibly as the only way for definitive relief of pain, fear [61, 109, 127, 128], and suffering due to traumatic events [74–76].

Finally, the two sequential mediational models indicate that nonetheless, sexual abuse in childhood has a direct effect on preparedness for suicide, it also has a domino effect, that is, a series of related events, one following another. ACE sexual abuse predicts PTSD, but when this variable interacts with NSSI Interpersonal which provides significant emotional relief and generates feeling motives [129, 130], in turn, has a complete mediation effect in preparedness for suicide. When PTSD interacts with NSSI Intrapersonal, even though strongly predicts suicide [57, 125, 130], the interaction has a partial mediation effect on preparedness for suicide diminishing it considerably.

These findings indicate that the long-term negative effects of childhood traumatic events emerge as syndromes in adulthood: post-traumatic stress disorder, self-injurious behaviors, and suicidal behavior. Also, the interaction of PTSD with non-suicidal intrapersonal and interpersonal self-harm prevents the individual from being directly involved in preparing for suicide. Experiencing ACE, especially sexual abuse, has a traumatic impact, frequently developing PTSD which symptoms can make a person feel constantly afraid, isolated, with no hope or escape, which in turn can lead the person to self-injurious behavior.

Our outcomes indicate that the interaction of PTSD symptomatology predicts nonsuicidal self-injury, both NSSI interpersonal and intrapersonal, which, despite having different functions, mediate the direct effect of child sexual abuse on the preparation for suicide. So, coping with outward expression of distress and emotional pain to reduce tensions (interpersonal) or self-punishment (intrapersonal), prevent suicidality.

Some limitations to consider are the reliability of the retrospective assessment of childhood trauma experiences assessed in adulthood, may be influenced by uncontrolled recall bias. Despite our data was collected in a large and representative sample of nonclinical population, the results are not generalizable, but they are a good approach to what is happening in Mexican adults who had child sexual abuse.

All these findings have implications for clinical and social practice. It is important that when a person who suffered child sexual abuse seeks psychological care, it is necessary to assess the possible symptomatology of post-traumatic stress, and, where appropriate, the reasons and all functions that lead the person to self-harm, examining the presence of suicidal ideation, preparedness, or attempts, as well. This will allow to design therapeutic focused intervention to prevent suicide risk and NSSI cessation, to develop emotion regulation and interpersonal communication skills to provide hope in achieving a life free of psychic pain.

Future research is needed, including qualitative studies, to continue examining the adaptive functions of NSSI behavior interacting with PTSD to cope with suicidal thoughts and attempts, as well as exploring protective factors such as hope, social support, parenting styles and family dynamics.

Additionally, we need to enforce continuous efforts with families, implementing programs, activities, and procedures designed to carry out preventive measures particularly for sexual abuse that causes intentional harm and suffering to the children, whose consequences persist as emergent syndromes in adulthood.

Conflict of interest

The authors declare no conflict of interest.

Author details

Angélica Quiroga-Garza[1*] and María José Almela-Ojeda[1,2]

1 Universidad de Monterrey, Garza García, Mexico

2 Universidad de Monterrey, Garza García, Fundación El Roble, Monterrey, Mexico

*Address all correspondence to: angelica.quiroga@udem.edu

References

[1] Kessler RC, Üstün TB. The WHO World Mental Health Surveys: Global Perspectives on the Epidemiology of Mental Disorders. Cambridge University Press; 2008

[2] Bind R, Trinetti J, Sawyer K, Pariante CM. Perinatal mental health and childhood trauma. In: Spalletta GD, Piras FJ, Sani G, editors. Childhood Trauma in Mental Disorders. Springer; 2020. pp. 63-77

[3] Waikamp V, Barcellos F. Repercussions of trauma in childhood in the psychopathology of adult life. Ciencias Psicológicas. 2018;**12**(1):137-144

[4] Hornor G. Resilience in children recovering from trauma. In: Nabors L, editor. Resilient Children. Springer; 2021. pp. 22-46

[5] Jimeno M. Traumatic experiences in childhood and their influence on affective-social development and autobiographical memory in institutionalized adolescents: Comparison with a control group (Doctor). Universidad de Castilla-La Mancha; 2015

[6] Bloomfield MAP. Trauma and post-traumatic stress disorder: Children should be seen and heard. The Lancet Psychiatry. 2019;**6**:193-194

[7] Green JG, McLaughlin KA, Berglund PA, Gruber MJ, Sampson NA, Zaslavsky AM, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication I: Associations with first onset of DSM-IV disorders. Archives of General Psychiatry. 2010;**67**(2):113-123

[8] Kessler RC, McLaughlin KA, Green JG, Gruber MJ, Sampson NA, Zaslavsky AM, et al. Childhood adversities and adult psychopathology in the WHO world mental health surveys. The British Journal of Psychiatry. 2010;**197**(5):378-385

[9] Norman RE, Byambaa M, De R, Butchart A, Scott J, Vos T. The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. PLoS Medicine. 2012;**9**(11):e1001349

[10] Shonkoff JP, Garner AS, Siegel BS, Dobbins MI, Earls MF, McGuinn L, et al. The lifelong effects of early childhood adversity and toxic stress. Pediatrics. 2012;**129**(1):e232-e246. DOI: 10.1542/peds.2011-2663

[11] OECD. Changing the Odds for Vulnerable Children: Building Opportunities and Resilience. Paris: OECD Publishing; 2019

[12] Valdez-Santiago R, Villalobos A, Arenas-Monreal L, Flores-Celis K, Ramos-Lira L. Child sexual abuse in Mexico: Risk behaviors and mental health indicators in adolescents. Salud Pública de México. 2020;**62**(6):661-671

[13] Darkness to Light. Prevalence of child sexual abuse. Prevention. 2022. https://www.d2l.org/child-sexual-abuse/prevalence/

[14] Varas A. Child sexual violence in Mexico. El Financiero. 2021

[15] Executive Commission for Attention to Victims. Bill of rights of victims of child sexual violence [Pamphlet]. Instituto Mexicano del Seguro Social; 2016

[16] Gasca A. Why do victims not report to the authorities? Animal Político.

2021. Animal Político is a ONG and the information is published in the internet site: https://www.animalpolitico.com/seguridad-justicia-y-paz/por-que-las-personas-victimas-no-denuncian-ante-la-autoridad/

[17] Niño de Rivera S, Castañeda M, Llamas M, González A, Vallarino J, Balandra J, et al. No is No. Guide to Action against Sexual Violence in Mexico: Know, Act, Denounce and Accompany. Penguin Random House; 2021. ISBN: 978-607-38-0407-3

[18] Domínguez I, Núñez J. Reporting child abuse, a judicial ordeal. El País. 2021

[19] World Health Organization. Guidelines for Medico-legal Care of Victims of Sexual Violence. Geneva: World Health Organization; 2003. pp. 75-93

[20] DIF National System. Do you know what sexual abuse of girls and boys is? 2017

[21] Matrángolo G, Yaccarini C, Paz G. Self-esteem, personality, spirituality and centrality of traumatic events linked to psychosocial problems in childhood. Revista Científica Arbitrada de la Fundación Mente Clara. 2017;**2**(2):217-237

[22] Everstine DS, Everstine L. Sexual Trauma in Children and Adolescents: Dynamics & Treatment. Routledge; 2019

[23] Vega M, Nuñez U. Adverse childhood experiences: Review of its impact on children from 0 to 5 years old. Enfermería Universitaria. 2017;**14**(2):124-130

[24] Organización Mundial de la Salud. Prevención del maltrato infantil: qué hacer, y cómo obtener evidencias. Ginebra; 2019. Available from: https://apps.who.int/iris/handle/10665/44228

[25] Cukor D, McGinn LK. History of child abuse and severity of adult depression: The mediating role of cognitive schema. Journal of Child Sexual Abuse. 2006;**15**(3):19-34

[26] Echeburúa E, de Corral P. Secuelas emocionales en víctimas de abuso sexual en la infancia. Cuadernos de Medicina Forense. 2006;**43-44**:75-82

[27] Pereda N. Consecuencias psicológicas a largo plazo del abuso sexual infantil - Dialnet. Papeles del psicólogo. 2010;**31**(2):191-201

[28] Menon P, Chaudhari B, Saldanha D, Devabhaktuni S, Bhattacharya L. Childhood sexual abuse in adult patients with borderline personality disorder. Industrial Psychiatry Journal. 2016;**25**(1):101

[29] Temes CM, Magni LR, Aguirre BA, Goodman M, Ridolfi ME, Zanarini MC. Parameters of reported childhood sexual abuse and assault in adolescents and adults with borderline personality disorder. Personality and Mental Health. 2020;**14**(3):254-262

[30] Cubellis MA, Peterson BE, Henninger AM, Lee D. Childhood sexual abuse and antisocial traits and behaviors: A gendered examination of the factors associated with perpetration of intimate partner violence. Journal of Interpersonal Violence. 2018;**33**(20):3125-3161

[31] Dargis M, Newman J, Koenigs M. Clarifying the link between childhood abuse history and psychopathic traits in adult criminal offenders. Personality Disorders, Theory, Research, and Treatment. 2016;**7**(3):221-228

[32] DeLisi M, Drury AJ, Elbert MJ. The etiology of antisocial personality disorder: The differential roles of adverse childhood experiences and childhood psychopathology. Comprehensive Psychiatry. 2019;**92**:1-6

[33] Darves-Bornoz JM, Lépine JP, Choquet M, Berger C, Degiovanni A, Gaillard P. Predictive factors of chronic post-traumatic stress disorder in rape victims. European Psychiatry. 1998;**13**(6):281-287

[34] Maikovich AK, Koenen KC, Jaffee SR. Posttraumatic stress symptoms and trajectories in child sexual abuse victims: An analysis of sex differences using the national survey of child and adolescent well-being. Journal of Abnormal Child Psychology. 2009;**37**(5):727-737

[35] Nooner KB, Linares LO, Batinjane J, Kramer RA, Silva R, Cloitre M. Factors related to posttraumatic stress disorder in adolescence. Trauma, Violence & Abuse. 2012;**13**(3):153-166

[36] Fleming J, Mullen PE, Sibthorpe B, Bammer G. The long-term impact of childhood sexual abuse in Australian women. Child Abuse & Neglect. 1999;**23**(2):145-159

[37] Peleikis DE, Mykletun A, Dahl AA. Current mental health in women with childhood sexual abuse who had outpatient psychotherapy. European Psychiatry. 2005;**20**(3):260-267

[38] Vitriol V. Relación entre psicopatología adulta y antecedentes de trauma infantil. Revista Chilena de Neuro-Psiquiatría. 2005;**43**(2):88-96

[39] Andover MS, Zlotnick C, Miller IW. Childhood physical and sexual abuse in depressed patients with single and multiple suicide attempts. Suicide & Life-Threatening Behavior. 2007;**37**(4):467-474

[40] Angelakis I, Austin JL, Gooding P. Association of childhood maltreatment with suicide behaviors among young people: A systematic review and meta-analysis. JAMA Network Open. 2020;**3**(8):e2012563

[41] Cantón-Cortés D, Cortés MR, Cantón J. Child sexual abuse and suicidal ideation: The differential role of attachment and emotional security in the family system. International Journal of Environmental Research and Public Health. 2020;**17**(9):e3163

[42] Cortés-Arboleda MR, Cantón-Cortés D, Cantón-Duarte J. Consecuencias a largo plazo del abuso sexual infantil: papel de la naturaleza y continuidad del abuso y del ambiente familiar. Psicología Conductual. 2011;**19**(1):41-56

[43] Gong M, Zhang S, Li W, Wang W, Wu R, Guo L, et al. Association between childhood maltreatment and suicidal ideation and suicide attempts among Chinese adolescents: The moderating role of depressive symptoms. International Journal of Environmental Research and Public Health. 2020;**17**:1-14

[44] Joiner TE, Sachs-Ericsson NJ, Wingate LRR, Brown JS, Anestis MD, Selby EA. Childhood physical and sexual abuse and lifetime number of suicide attempts: A persistent and theoretically important relationship. Behaviour Research and Therapy. 2007;**45**(3):539-547

[45] Ystgaard M, Hestetun I, Loeb M, Mehlum L. Is there a specific relationship between childhood sexual and physical abuse and repeated suicidal behavior? 2004

[46] Buresová I. Self-harm in Adolescence. Frankfurt: Peter Lang Academic Research; 2016

[47] Mollà L, Vila SB, Treen D, López J, Sanz N, Martín LM, et al. Nonsuicidal self-harm in adolescents: Review of psychological treatments. Revista de Psicopatología y Psicología Clínica. 2015;**20**(201):51-61

[48] Walker S. Responding to Self-harm in Children and Adolescents: A Professional's Guide to Identification, Intervention and Support. Londres: Jessica Kingsley Publishers; 2012

[49] Martin MS, Dykxhoorn J, Afifi TO, Colman I. Child abuse and the prevalence of suicide attempts among those reporting suicide ideation. Social Psychiatry and Psychiatric Epidemiology. 2016;**51**(11):1477-1484

[50] Posner K, Brodsky B, Yershova K, Buchanan J, Mann J. The Oxford Handbook of Suicide and Self-injury. New York: Oxford University Press; 2014. pp. 7-20

[51] Xavier A, Cunha M, Gouveia JP. Deliberate self-harm in adolescence: The impact of childhood experiences, negative affect and fears of compassion. Revista de Psicopatologia y Psicologia Clinica. 2015;**20**(1):41-49

[52] Balbi E, Boggiani E, Dolci M. Violent Adolescents: With Others, with Themselves. Herder; 2012

[53] Cruz D, Narciso I, Muñoz M, Pereira CR, Sampaio D. Adolescents and self-destructie behavior: An exploratory analysis of family and individual correlates. Behavioral Psychology/Psicología Conductual. 2013;**21**(2):271-288

[54] Martin J, Bureau J, Yurkowski K, Lafontaine M, Cloutier P. Heterogeneity of relational background is associated with variation in non-suicidal self-injurious behavior. Journal of Abnormal Child Psychology. 2016;**44**:511-522

[55] Benjet C, González-Herrera I, Castro-Silva E, Méndez E, Borges G, Casanova L, et al. Non-suicidal self-injury in Mexican young adults: Prevalence, associations with suicidal behavior and psychiatric disorders, and DSM-5 proposed diagnostic criteria. Journal of Affective Disorders. 2017;**215**:1-8

[56] American Psychiatric Association. DSM-5. Manual Diagnóstico y Estadístico de los Trastornos Mentales DSM-5® | Acceso a material complementario. 5th ed. APA; 2014

[57] Anestis MD, Knorr AC, Tull MT, Lavender JM, Gratz KL. The importance of high distress tolerance in the relationship between nonsuicidal self-injury and suicide potential. Suicide & Life-Threatening Behavior. 2013;**43**(6):663-675

[58] Klonsky ED. The functions of deliberate self-injury: A review of the evidence. Clinical Psychology Review. 2007;**27**(2):226-239

[59] Flores-Soto M, del Flores-Soto M, Cancino-Marentes ME, del Varela Ma RF. Systematic review of self-injurious behaviors without suicidal intention in adolescents. Revista Cubana de Salud Pública. 2018;**44**(4):e1113

[60] David Klonsky E, May AM, Glenn CR. The relationship between nonsuicidal self-injury and attempted suicide: Converging evidence from four samples. Journal of Abnormal Psychology. 2013;**122**(1):231-237

[61] Nock MK, Joiner TE, Gordon KH, Lloyd-Richardson E,

Prinstein MJ. Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide attempts. Psychiatry Research. 2006;**144**(1):65-72

[62] Vega D, Sintes A, Fernández M, Punti J, Soler J, Santamarina P, et al. Review and update on non-suicidal self-injury: Who, how and why? Actas Españolas de Psiquiatría. 2018;**46**(4):146-155

[63] Cut OF. Self-harm and Suicide Attempts in Childhood and Adolescence. Buenos Aires, AR: Urano; 2014

[64] di Rico E, Paternain N, Portillo N, Galarza A. Analysis of the relationship between interpersonal factors and suicidal risk in adolescents from the city of Necochea. Perspectivas en Psicología. 2016;**13**:95-106

[65] Huang X, Ribeiro JD, Franklin JC. The differences between individuals engaging in nonsuicidal Self-Injury and suicide attempt are complex (vs. complicated or simple). Frontiers in Psychiatry. 2020;**11**:239

[66] Barrett LF. Solving the emotion paradox: Categorization and the experience of emotion. Personality and Social Psychology Review. 2006;**10**(1):20-46

[67] Barrett LF. Variety is the spice of life: A psychological construction approach to understanding variability in emotion. Cognition & Emotion. 2009;**23**(7):1284-1306

[68] Barrett LF. The theory of constructed emotion: An active inference account of interception and categorization. Social Cognitive and Affective Neuroscience. 2017;**2**:1-23

[69] World Health Organization. Preventing Suicide: A Global Imperative. HV; 2014. p. 6545

[70] Instituto Nacional de Estadística y Geografía (INEGI). Statistics on the World Day for Suicide Prevention (September 10). 2021. Report No.: 455/19

[71] Government of the State of Nuevo Leon. Suicide report first semester of the year 2021. Nuevo Leon. 2021

[72] Joiner TE, Pettit JW, Walker RL, Voelz ZR, Cruz J, Rudd MD, et al. Perceived burdensomeness and suicidality: Two studies on the suicide notes of those attempting and those completing suicide. Journal of Social and Clinical Psychology. 2002;**21**(5):531-545

[73] Van Orden KA, Lynam ME, Hollar D, Joiner TE. Perceived burdensomeness as an indicator of suicidal symptoms. Cognitive Therapy and Research. 2006;**30**(4):457-467

[74] Joiner TE, Van Orden KA, Witte TK, Selby EA, Ribeiro JD, Lewis R, et al. Main predictions of the interpersonal-psychological theory of suicidal behavior: Empirical tests in two samples of young adults. Journal of Abnormal Psychology. 2009;**118**(3):634-646

[75] Galindo GC, Bahamón MJM. Cognitive Theory and Psychological Interpersonal Theory of Suicidal Behavior in Emerging Debates in Psychology. Bogotá, CO: UNAD; 2017

[76] Borges G, Benjet C, Orozco R, Medina-Mora ME, Mendez E, Molnar BE. Traumatic life-events and suicidality among Mexican adolescents as they grow up: A longitudinal community survey. Journal of Psychiatric Research. 2021;**142**:171-178

[77] Zatti C, Rosa V, Barros A, Valdivia L, Calegaro VC, Freitas LH, et al. Childhood trauma and suicide attempt: A meta-analysis of longitudinal studies from

the last decade. Psychiatry Research. 2017;**256**:353-358

[78] Harriss L, Hawton K. Suicidal intent in deliberate self-harm and the risk of suicide: The predictive power of the Suicide Intent Scale. Journal of Affective Disorders. 2005;**86**(2-3):225-233

[79] Hawton K, Clements A, Sakarovitch C, Simkin S, Deeks JJ. Suicide in doctors: A study of risk according to gender, seniority and specialty in medical practitioners in England and Wales, 1979-1995. Journal of Epidemiology and Community Health. 2001;**55**(5): 296-300

[80] Millner AJ, Ursano RJ, Hwang I. J. King A, Naifeh JA, Sampson NA, et al. Prior mental disorders and lifetime suicidal behaviors among US army soldiers in the army study to assess risk and resilience in servicemembers (Army STARRS). Suicide & Life-Threatening Behavior. 2019;**49**(1):3-22

[81] Yates A, Cohan A, Goharian N. Depression and self-harm risk assessment in online forums. In: EMNLP 2017 - Conference on Empirical Methods in Natural Language Processing, Proceedings. 2017. pp. 2968-2978

[82] Rossi R, Talevi D, Gregori E, Quarta E, Lucaselli A, Pacitti F. Early interpersonal violence mediates the effect of family history of mental disorder on suicide attempts in a non-clinical sample. Rivista di Psichiatria. 2020;**55**(1):37-40

[83] Rajalin M, Hirvikoski T, Salander Renberg E, Åsberg M, Jokinen J. Family history of suicide and interpersonal functioning in suicide attempters. Psychiatry Research. 2017;**247**:310-314

[84] O'Reilly LM, Kuja-Halkola R, Rickert ME, Class QA, Larsson H, Lichtenstein P, et al. The intergenerational transmission of suicidal behavior: An offspring of siblings study. Translational Psychiatry. 2020;**10**:1-11

[85] David Klonsky E, May AM. The three-step theory (3ST): A new theory of suicide rooted in the "ideation-to-action" framework. International Journal of Cognitive Therapy. 2015;**8**:114-129

[86] Miller AB, Jenness JL, Oppenheimer CW, Gottleib ALB, Young JF, Hankin BL. Childhood emotional maltreatment as a robust predictor of suicidal ideation: A multi-wave, prospective investigation. Journal of Abnormal Child Psychology. 2017;**45**:116

[87] Janiri D, de Rossi P, Kotzalidis GD, Girardi P, Koukopoulos AE, Reginaldi D, et al. Psychopathological characteristics and adverse childhood events are differentially associated with suicidal ideation and suicidal acts in mood disorders. European Psychiatry. 2018;**53**:31-36

[88] Janiri D, Moccia L, Conte E, Palumbo L, Chieffo DPR, Fredda G, et al. Emotional dysregulation, temperament and lifetime suicidal ideation among youths with mood disorders. Journal of Persian Medicine. 2021;**11**(9):31-36

[89] Bryan CJ, Bryan ABO, Ray-Sannerud BN, Etienne N, Morrow CE. Suicide attempts before joining the military increase risk for suicide attempts and severity of suicidal ideation among military personnel and veterans. Comprehensive Psychiatry. 2014;**55**(3):534-541

[90] Harmer B, Lee S, Duong T, Saadabadi A. Suicidal Ideation. StatPearls Publishing; 2021

[91] Park CHK, Lee JW, Lee SY, Moon J, Jeon DW, Shim SH, et al. Suicide risk factors across suicidal ideators, single suicide attempters, and multiple suicide attempters. Journal of Psychiatric Research. 2020;**131**:1-8

[92] Song Y, Rhee SJ, Lee H, Kim MJ, Shin D, Ahn YM, et al. Comparison of suicide risk by mental illness: A retrospective review of 14-year electronic medical records. Journal of Korean Medical Science. 2020;**35**:e402

[93] Weathers FW, Litz B, Herman D, Huska J, Keane T. The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and Initial Psychometric Evaluation. Paper presented at the Annual Meeting of the International Society for Traumatic Stress Studies. San Antonio, TX; 1993

[94] Durón-Figueroa R, Cárdenas-López G, Castro-Calvo J, de la Rosa-Gómez A. Adaptación de la Lista Checable de Trastorno por Estrés Postraumático para DSM-5 en Población Mexicana. Acta de Investigación Psicológica. 2019;**9**(1):26-36

[95] Klonsky ED, Glenn CR. Assessing the functions of non-suicidal self-injury: Psychometric properties of the inventory of statements about self-injury (ISAS). Journal of Psychopathology and Behavioral Assessment. 2009;**31**(3):215-219

[96] Perez Prada M, Viancha Pinzon M, Martinez Baquero L, Salas BI. El maltrato familiar y su relación con la ideación suicida en adolescentes escolarizados de instituciones públicas y privadas de las ciudades de Tunja. Duitama y Sogamoso. Psicogente. 2014;**17**(31):80-92

[97] Plener PL, Allroggen M, Kapusta ND, Brähler E, Fegert JM, Groschwitz RC. The prevalence of Nonsuicidal Self-Injury (NSSI) in a representative sample of the German population. BMC Psychiatry. 2016;**16**(1):e353

[98] Castro E, Benjet C, Juárez F, Jurado S, Lucio ME, Valencia A. Adaptation and psychometric properties of the Inventory of Statements About Self-injury in Mexican students. Acta de Investigación Psicológica. 2016;**6**(3):2544-2551

[99] George SE, Page AC, Hooke GR, Stritzke WGK. Multifacet assessment of capability for suicide: Development and prospective validation of the acquired capability with rehearsal for suicide scale. Psychological Assessment. 2016;**28**(11):1452-1464

[100] Schneider M. The Influence of Disturbing Dreams on One's Acquired Capability for Suicide. Florida State University; 2019 ProQuest: 13857370

[101] Vitalsigns CDC. Adverse Childhood Experiences (ACEs). Preventing Early Trauma to Improve Adult Health. Bulletin: Vital Signs. 2019. pp. 2

[102] Gaydosh L, Harris KM. Childhood family instability and young adult health. Journal of Health and Social Behavior. 2018;**59**(3):390

[103] Ellis J, Dowrick C, Lloyd-Williams M. The long-term impact of early parental death: Lessons from a narrative study. Journal of the Royal Society of Medicine. 2013;**106**(2):57-67

[104] Høeg BL, Johansen C, Christensen J, Frederiksen K, Dalton SO, Dyregrov A, et al. Early parental loss and intimate relationships in adulthood: A nationwide study. Developmental Psychology. 2018;**54**(5):963-974

[105] Høeg BL, Johansen C, Christensen J, Frederiksen K, Dalton SO, Bøge P, et al.

Does losing a parent early influence the education you obtain? A nationwide cohort study in Denmark. Journal of Public Health (Oxford, England). 2019;**41**(2):296-304

[106] Hayslip B, Pruett JH, Caballero DM. The "how" and "when" of parental loss in adulthood: Effects on grief and adjustment. Omega (United States). 2015;**71**(1):3-18

[107] Scherer Z. When do we lose our parents? Parental mortality is linked to a variety of socio-economic and demographic factors. 2019. Available from: https://www.census.gov/library/stories/2019/05/when-do-we-lose-our-parents.html

[108] van Poppel F, Schenk N, van Gaalen R. Demographic transitions and changes in the living arrangements of children: The Netherlands 1850-2010. Population Research and Policy Review. 2012;**32**(2):243-260

[109] Brausch AM, Muehlenkamp JJ. Perceived effectiveness of NSSI in achieving functions on severity and suicide risk. Psychiatry Research. 2018;**265**:144-150

[110] Halpin SA, Duffy NM. Predictors of non-suicidal self-injury cessation in adults who self-injured during adolescence. Journal of Affective Disorders Reports. 2020;**1**:1

[111] Tatnell R, Kelada L, Hasking P, Martin G. Longitudinal analysis of adolescent NSSI: The role of intrapersonal and interpersonal factors. Journal of Abnormal Child Psychology. 2014;**42**(6):885-896

[112] Nock MK, Prinstein MJ. A functional approach to the assessment of self-mutilative behavior. Journal of Consulting and Clinical Psychology. 2004;**72**(5):885-890

[113] Nock MK. Why do people hurt themselves? New insights into the nature and functions of self-injury. Current Directions in Psychological Science. 2009;**18**(2):78

[114] Klonsky ED, Glenn CR, Styer DM, Olino TM, Washburn JJ. The functions of nonsuicidal self-injury: Converging evidence for a two-factor structure. Child and Adolescent Psychiatry and Mental Health. 2015;**9**(1):1-9

[115] Mars B, Heron J, Klonsky ED, Moran P, O'Connor RC, Tilling K, et al. Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: A population-based birth cohort study. The Lancet Psychiatry. 2019;**6**(4):327-337

[116] Daruy-Filho L, Brietzke E, Lafer B, Grassi-Oliveira R. Childhood maltreatment and clinical outcomes of bipolar disorder. Acta Psychiatrica Scandinavica. 2011;**124**(6):427-434

[117] Gama CMF, Portugal LCL, Gonçalves RM, de Souza JS, Vilete LMP, Mendlowicz MV, et al. The invisible scars of emotional abuse: A common and highly harmful form of childhood maltreatment. BMC Psychiatry. 2021;**21**(1):e156

[118] Dhingra K, Boduszek D, Sharratt K. Victimization profiles, non-suicidal self-injury, suicide attempt, and post-traumatic stress disorder symptomology: Application of latent class analysis. Journal of Interpersonal Violence. 2016;**31**(14):2412-2429

[119] Pournaghash-Tehrani SS, Zamanian H, Amini-Tehrani M. The impact of relational adverse childhood experiences on suicide outcomes

during early and young adulthood. Journal of Interpersonal Violence. 2021;**36**(17-18):8627-8651

[120] Smith BC, Armelie AP, Boarts JM, Brazil M, Delahanty DL. PTSD, depression, and substance use in relation to suicidality risk among traumatized minority lesbian, gay, and bisexual youth. Archives of Suicide Research. 2016;**20**(1):80-93

[121] Brockie TN, Dana-Sacco G, Wallen GR, Wilcox HC, Campbell JC. The relationship of adverse childhood experiences to PTSD, depression, poly-drug use and suicide attempt in reservation-based native American adolescents and young adults. American Journal of Community Psychology. 2015;**55**(3-4):411-421

[122] Duarte TA, Paulino S, Almeida C, Gomes HS, Santos N, Gouveia-Pereira M. Self-harm as a predisposition for suicide attempts: A study of adolescents' deliberate self-harm, suicidal ideation, and suicide attempts. Psychiatry Research. 2020;**287**:112553

[123] Quarshie ENB, Waterman MG, House AO. Self-harm with suicidal and non-suicidal intent in young people in sub-Saharan Africa: A systematic review. BMC Psychiatry. 2020;**20**(1):1-26

[124] Nock M. The Oxford Handbook of Suicide and Self-injury. Oxford University Press; 2017

[125] Wang H, Wang Q, Liu X, Gao Y, Chen Z. Prospective interpersonal and intrapersonal predictors of initiation and cessation of non-suicidal self-injury among Chinese adolescents. International Journal of Environmental Research and Public Health. 2020;**17**:1-13

[126] Joiner TE, Ribeiro JD, Silva C. Nonsuicidal self-injury, suicidal behavior, and their co-occurrence as viewed through the lens of the interpersonal theory of suicide. Current Directions in Psychological Science. 2012;**21**(5):342-347

[127] Gardner KJ, Paul E, Selby EA, Klonsky ED, Mars B. Intrapersonal and interpersonal functions as pathways to future self-harm repetition and suicide attempts. Frontiers in Psychology. 2021;**12**:2657

[128] Forbes CN, Tull MT, Richmond JR, Chapman AL, Dixon-Gordon KL, Gratz KL. Motives for nonsuicidal self-injury in individuals with lifetime depressive disorders and posttraumatic stress disorder. Journal of Psychopathology and Behavioral Assessment. 2019;**41**(4):652-661

[129] Mastin TM, Bautista CL, Teng EJ. Nonsuicidal self-injury in veterans with posttraumatic stress disorder: Current theory and implications for practice. Professional Psychology: Research and Practice. 2020;**51**(4):335-340

[130] Victor SE, Styer D, Washburn JJ. Characteristics of nonsuicidal self-injury associated with suicidal ideation: Evidence from a clinical sample of youth. Child and Adolescent Psychiatry and Mental Health. 2015;**9**(1):1-8