

## Original Research Article

# Non-Suicidal Self-Injury Symptomatology as Aftereffect of Emotion Regulation in a Community Sample of Filipino Adolescents

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**Abstract:** Non-suicidal self-injury or NSSI has been a widespread phenomenon happening in adolescents and is significantly found to be an after-effect of improper emotion regulation due to difficulty in expressing emotions. This study utilized a descriptive-correlational study and was conducted on 126 adolescents to ascertain the correlation between NSSI and emotion regulation and NSSI as an aftereffect of emotion regulation among adolescents. In measuring the levels of NSSI, the researcher used the Functional Assessment of Self-Mutilation (FASM) and Emotion Regulation Questionnaire (ERQ) for emotion regulation. Results of the study reported low levels of NSSI symptoms with computed mean of 0.65 and SD= 0.51 which includes a mild form of NSSI such as biting oneself and pulling out hair and a moderate/severe form which is hitting oneself on purpose. Moreover, the study revealed high levels of emotion regulation among the respondents with mean=4.71 and SD=1.31. High levels of both cognitive reappraisal (4.83) and expressive suppression (4.57) were found in the study as measured by ERQ. Using Pearson correlation, the study revealed a statistical relationship between NSSI and emotion regulation among the respondents with computed p-value= 0.59. Thus, this signifies an aftereffect of improper emotion regulation and the ability to express emotions. The results are recommended to parents and teachers at the very least, to teach their students how to manage and regulate emotions to alleviate the incidence of NSSI.

**Keywords:** Non-suicidal self-injury, emotion regulation, cognitive reappraisal, emotion suppression.

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## INTRODUCTION

Non-suicidal self-injury (NSSI), or known as infliction of self and self-mutilation, is characterized by deliberate and direct harm to one's own body that results in significant pain and damage without the intention to commit suicide (Moutier, 2022). The said behavior is common and a major problem for adolescents. NSSI is commonly used by individuals to regulate strong emotions and negative affect, as well as being utilized as a coping strategy by those who find it difficult to express or control their feelings in other ways. Moutier (2022) states that while the reasons for NSSI are unclear, self-injury can serve as a means of alleviating stress and feeling negative, dealing with problems in interpersonal relationships, as a kind of self-punishment, or even as an unwitting attempt to seek out professional aid.

According to Moutier (2022), common NSSI strategies usually involve cutting or trying to stab the skin with a sharp object (such as a sharp knife, razor blade, or needle) and scorching the skin (typically with cigarettes). NSSI methods usually imply repeated use of evidently nonlethal techniques since the person has no intent to kill themselves. However, even with the lack of immediate lethality, the incident of NSSI behaviors has a long-term risks of suicide attempts and even competition for suicide. Hence, NSSI cases among adolescents should require clinical attention.

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) serves as the basis for the proposed criteria for symptoms: a. has self-inflicted intentional body surface damages for at least five days in the past year, a. has five or more days in the past year engaged in intentional self-inflicted body surface damages, b. The person engages in suicidal behavior with one or more of the

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following expectations: to go get away from a bad emotion or cognitive state, to end a dispute with someone else, and to make themselves feel better. Intentional self-harm is linked to at least one of the following: interpersonal issues, unfavorable emotions, or bad thoughts; obsession with difficult-to-control intended conduct; and persistent, frequent injury-related ideation. the actions are not socially sanctioned, e. in many facets of life, the behavior is very distressing and unpleasant, and f. the actions do not just take place during psychotic episodes, etc.

A person's lack of control over their emotions is the major cause of NSSI. Emotional regulations are a person's understanding, acceptance, and adaptive use of procedures for appropriate behavior (Lan *et al.*, 2023). Correspondingly, following the Cornell Research Program on Self-Injury and Recovery, emotion regulation characterizes as the ability of a person to handle and react appropriately to their emotion experiences. People utilize emotion regulation strategies unconsciously to contend with stressful and anxiety-inducing circumstances that come up throughout an ordinary day. In this sense, emotion dysregulation pertains to a person's inability to control their emotional well-being in the face of difficult situations.

In the study of Lan *et al.*, (2023), NSSI has been particularly linked to emotion regulation, that is; when a person is confronted with stressful events that are difficult to handle, they will experience problems in expressing their emotions that will resort to a more likely increase in emotional arousal. In this case, a person was not able to exercise effective emotional regulation strategies in response to the stressful events, thus, they result in engaging themselves in NSSI behavior.

Research on the general population suggests that NSSI is widespread in adolescence and closely correlated with deficiencies in emotion regulation. Perini *et. al* (2021) states that 17% of the community sample of adolescents up to 60% has NSSI, mostly present in young adult college student and are more common to females than males. Moreover, Lan *et. al* (2023) demonstrated that high incidences of NSSI were found among adolescents ranging from 6.2% to 45% in North America and Australia and 5.4% to 57.4% in China.

This study aims to ascertain the association between NSSI symptoms and emotion regulation among Filipino adolescents by the subsequent concerns concerning the prevalence and incidence of NSSI among adolescents.

### Research Questions

The study is focused on determining the correlation between NSSI and emotion regulation among Filipino adolescents as to whether the symptoms

of NSSI become the aftereffect of emotion regulation among the respondents. Specifically, it seeks to uncover the following questions:

1. What is the level of non-suicidal self-injury of the respondents?
2. What is the level of emotion regulation of the respondents?
3. Is there a statistically significant relationship between non-self-injury and the emotional regulation of the respondents?
4. Are the symptoms of NSSI becomes an after-effect of the emotion regulation of the respondents?

### Hypothesis

The study is guided by its hypothesis:

There is no statistically significant relationship between non-suicidal self-injury and emotion regulation among the respondents.

## LITERATURE REVIEW

This part of the study explains and discusses the different related literature and studies thoroughly searched and studied by the researcher.

### Non-Suicidal Self- Injury (NSSI) and Emotion Regulation Among Adolescents

A study of adolescent NSSI, predictors, and correlations found that 39% of 322 high school students in a severe multimethod NSSI class were associated with nearly all forms of NSSI and played increased intensity. Findings suggest that the extreme class is at greater risk considering poor mental health, taking advantage of her involvement in NSSI behavior during adolescence. Furthermore, the results demonstrate that adolescents who reported being alone during an NSSI episode were likelier to experience a reduced sense of well-being, increased pain during self-harm, and an active urge to self-harm. Individuals with diminished levels of positive mental health, more pain, and loneliness during self-harm have higher levels of commitment to self-harm (Reinhardt, 2022).

Further, Mettler *et al.*, (2021) stated that nonsuicidal self-harm is associated not only with negative emotional regulation in NSSI patients but also with difficulty with emotional responses. This study looked at how women with and without NSSI differed, resulting in 36 women with a history of NSSI in the past two years, with a mean of 20.06 and a standard deviation of 1.51. 20.15 at  $SD=1.54$ . Self-report assessments measuring both positive and negative emotional reactivity and emotional regulation were administered to both respondents. Emotional regulation and reactivity were more difficult for those with a history of NSSI than for those without one, according to the findings. There were no differences in group differences, reactivity, or emotional regulation found in self-reported tests.

Lan *et al.*, (2023), in a study of the effects of emotion regulation on adolescent non-suicidal self-injury (NSSI), found a significant correlation between an adolescent's regulation of emotions and behavior that involves NSSI. Respondents in this study consisted of 2,573 adolescents who were administered a standardized instrument that measures emotion regulation and NSSI. In addition, this study also examined the mediating effects of sleep, exercise, and social support, and the results showed that while sleep and social support mediate emotion regulation and NSSI, negative emotion regulation abilities are associated with NSSI during sleep. It has been shown to have a direct impact on behavior. Exercise, on the hand, has a direct positive effect on NSSI's ability to regulate emotions. This means that sleep and exercise may help adolescents mitigate NSSI behaviors caused by a lack of emotional regulation.

Furthermore, in the research by Perini *et al.*, (2021), it seemed that NSSI was linked to the dysregulation of negative and positive affective reactivity between emotion regulation and NSSI. Additionally, a constant relationship between NSSI and some sort of impairments in affect regulation is found in the study's retrospective self-report measures. It is important to note that NSSI-behaving adolescents have high emotional arousal contexts, which give them a sense of urgency for changing positive and negative emotions. Based on the findings, people who experienced the high intensity of emotions and receptiveness even when stimuli are positive, they have trouble controlling their responses, which can be seen as complicated and overwhelming. It demonstrates that impairments in regulated emotions and subsequent NSSI have been linked to negative urgency.

Cognitive and emotional factors had differentiated the behavior of adolescents' engagement to NSSI acts to those who had it and those who had not stopped but the study delimits on identifying the differences in their desire to stop. The study demonstrates to those that aspects of the underlying causes of NSSI related to the intention to stop different cause behaviors to end. In other words, a conflict between cognitive and emotional factors happens to the person with NSSI and therefore, conflict happens in the NSSI behaviors. A sample of 374 participants from 28 different universities was selected to be administered a standardized test that measures NSSI, and all participants were assumed to have an engagement with NSSI at some point in their life. Results showed that between 18 and 52 ( $M = 23.58$ ,  $SD = 4.19$ ). Initially participating in NSSI, the participants' mean age was 14, with a standard deviation of 3.28, and 163 of them, or 45.7%, said that cutting was their primary NSSI behavior (Gray *et al.*, 2022).

According to Taherifar *et al.*, (2021), emotion regulation techniques have been one of the most

significant causes of NSSI behavior. The researchers found that there are numerous discrepancies between the incidence of emotion regulation and NSSI in their systematic review. Moreover, the importance of emotion regulation in various emotional coping mechanisms was seen as a key factor in developing interventions that would manage NSSI more successfully.

Tristania & Hanurawan (2022) on the association between dysregulation of emotion and self-harm behavior among Malang City's college students revealed that there is a significant association between the dysregulation of emotion and self-harming behavior of the respondents garnering a correlation coefficient of .726 with significant value of .000 ( $<0.5$ ). The respondents of the study were college students that consist of 94 obtained through accidental sampling and administered with standardized tests that measure emotion regulation and self-harm behavior. The results also showed that 47.9% of the respondents have low levels of self-harm behavior and followed by 52.1% of the respondents were in the high classification of self-inflicted behavior. The study concluded that there is an existing high emotion dysregulation among the respondents; that is, these students were trying to apply emotional strategies which they fail resulting in them experiencing a great deal of tension when dealing with difficult and intense situations.

The study of Floyd (2019) on NSSI including emotional reactivity and emotion dysregulation, argues that one of the correlates of NSSI is emotion dysregulation, that the likelihood of an NSSI event increases with emotion dysregulation. It also shows that emotional dysregulation is highly influenced by the emotional reactivity of an individual, so the result showed that emotional reactivity is highly correlated with NSSI behavior but note that the study looked at the emotional reactivity of the respondents and whether the respondents had presence. and absence of NSSI. Concerning specific components of affective disorder, emotional reactivity was significantly associated with problems with goal-directed behavior when irregular, limited access to emotional regulation strategies, and difficulty controlling impulsive behavior in anxiety.

## METHODOLOGY

This study was focused on determining the correlation between the NSSI and emotion regulation of adolescents as to whether assumes NSSI symptoms could be an aftereffect of emotion regulation. The researcher utilized a quantitative approach and applied a descriptive-correlational design. Simple-random sampling techniques were used to select respondents randomly so all respondents will have an equal chance of being selected. Valid standardized tests were also administered to the respondents to measure the non-suicidal self-injury and emotion regulation of respondents. In measuring the incidence and level of

non-suicidal self-injury of the respondents, the researcher administered the Functional Assessment of Self-Mutilation (FASM) and Emotion Regulation Questionnaire (ERQ) for the emotion regulation of the respondents. Both tests were found to be valid measures of the variables.

**Instruments**

Lloyd-Richardson *et al.*, (32) developed the FASM to measure self-injurious behavior (SMB) frequency, activities, and other characteristics such as the respondent's severity of physical pain, the time they considered engaging in SMB, and alcohol use. or drugs harming themselves. FASM is divided into two parts. A list of 11 types of self-harm (cutting, burning, scratching, pushing objects into nails or skin, hitting oneself, picking wounds, pulling hair, scratching skin, and self-tattooing) can be found in the first section of scale. The two types of NSSI behaviors are mild (pulling hair, putting nails in or under the skin, self-biting, self-stabbing, picking at wounds, scratching the skin, and self-stabbing) and moderate/severe (cutting, burning, beating skin, wiping and self-tattooing). The second section, consisting of 22 questions about reasons for self-injury, was aimed at those who endorsed at least one NSSI behavior. Items are rated on a four-point Likert scale as follows: 0 means "never", 1 means "rarely", 2 means "some", and 3 means "often". The FASM yielded adequate internal consistency for values research with coefficients of 0.60 to 0.65.

The ERQ is a 10-item scale that measures respondents' tendency and ability to regulate their emotions in two ways: (1) cognitive reappraisal and (2) expressive suppression. Respondents need to answer each question on a 7-point Likert-type scale from 1- strongly disagree to 7- strongly agree. Aspect of

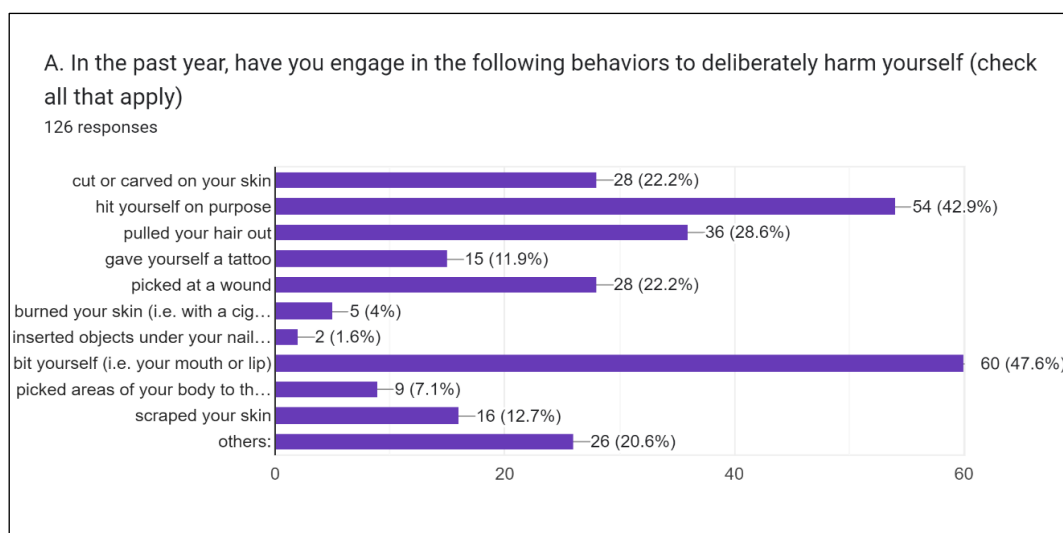
cognitive reappraisal measures from the items 1, 3, 5, 7, 8, and 10, while items 2, 4, 6, and 9 measure the aspect of expressive suppression. General internal consistency of ERQ has reliability coefficient of 0.82 along with each dimension: cognitive reappraisal with 0.82 and expressive suppression with 0.73.

The researcher obtained permission from the respective authors of the aforementioned instruments through electronic mail.

**Findings**

The study deals with determining the relationship between of NSSI and emotion regulation of Filipino adolescents as to whether the symptoms of NSSI becomes the aftereffect of emotion regulation among the respondents. The following salient findings were as follows:

The study revealed low levels of NSSI in the respondents with a computed mean of 0.65 and SD=0.51. The majority of the respondents which constitutes 60 (47.6%) of the respondents indicated that biting themselves (e.g. mouth or lips) is prevalent form of self-harm behavior among the respondents. Hitting themselves on purpose 54 (42.9%) of them use this form of self-harm behavior is also found as the second form of self-harm that adolescents usually do. In addition, 36 (28.6%) of the respondents pulled their hair out as as a means of committing self- harm; hence this is the third most prevalent form of self-harming behavior that the respondents. Biting oneself and pulling hair out is considered mild form while hitting oneself is considered moderate/severe form of NSSI. Other forms of self-harming behaviors are also found in the figure below:



**Figure 1: Adolescent’s Engagement to Self-Harm**

42.1% of the respondents also reported that they think about doing these acts a few minutes before actually doing it and 60.3% of them experience little pain while doing the self-harming behavior.

The result is supported by the study of Tristania & Hanurawan (2022) which reported that 47.9% of the respondents have low levels of self-

harming behavior. The results indicate that the respondents apply different emotional strategies in combatting the incident of self-harming behavior in which the respondents failed that resort them to experience extreme tension leading them not to handle the situation mentally and physically.

The result reported high levels of emotion regulation of the respondents with mean=4.71 and SD=1.31. The result was supported by Perini *et al.*, (2021) who states that adolescents experience high arousal in emotion which leads them to have fluctuating positive and negative emotions. It shows that individuals who experience high-intensity of emotions

have difficulties in regulating their reactions and response to anxiety-provoking situations that can be seen as problematic and overwhelming. In addition, the study conducted by Tristania & Hanurawan (2022) reported that an existence of high emotion was found in the respondents as these individuals were trying to apply emotional strategies in facing problems in which they failed, as a result, they experience a great deal of tension.

High levels of cognitive reappraisal and expressive suppression are also found out as measured by the ERQ and seen in the table below:

**Table 1: Mean and Verbal Interpretation of Items (Cognitive Reappraisal)**

<b>Mean and Verbal Interpretation of Items</b>		
<b>Items (measures cognitive reappraisal)</b>	<b>Mean</b>	<b>Verbal Interpretation</b>
1. When I want to feel more positive emotions (such as joy or amusement), I change what I'm thinking about.	4.73	High
3. When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.	4.90	High
5. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.	4.90	High
7. When I want to feel more positive emotions, I change the way I'm thinking about the situation.	4.82	High
8. I control my emotions by changing the way I think about the situation I'm in.	4.83	High
10. When I want to feel less negative emotion, I change the way I'm thinking about the situation.	4.81	High
<b>Total</b>	<b>4.83</b>	<b>High</b>

**Table 2: Mean and Verbal Interpretation of Items (Expressive Suppression)**

<b>Mean and Verbal Interpretation of Items</b>		
<b>Items (measures expressive suppression)</b>	<b>Mean</b>	<b>Verbal Interpretation</b>
2. I keep my emotions to myself.	5.26	High
4. When I am feeling positive emotions, I am careful not to express them.	3.85	Moderate
6. I control my emotions by not expressing them.	4.52	High
9. When I am feeling negative emotions, I make sure not to express them.	4.67	High
<b>Total</b>	<b>4.57</b>	<b>High</b>

For cognitive reappraisal, a total mean of 4.83 and 4.57 for expressive suppression were interpreted as high. This means that adolescents have high thinking in a difficult situation as to how they will alter their emotions and on the other hand, instances of inhibition of behavioral emotional expressions are also seen as high.

Using Pearson correlation, the study found a significant correlation between emotion regulation and non-suicidal self-injury of the respondents with  $r=0.59$ . Lan *et al.*, (2023) supported the present study on its results as it stated that a significant correlation between the NSSI and regulated emotions among adolescents was found in their study. The study also discussed the mediating effect of sleep, exercise, and social support in which the result shows enough sleep and social support mediates the occurrence of negative emotion and NSSI

behavior while exercise has a direct positive effect on emotion regulation and NSSI. Similarly, the study of Tristania & Hanurawan (2022) revealed a significant correlation between NSSI and emotion regulation among adolescents in school. The study implies emotional strategies that could lessen NSSI and emotion regulation.

Given the different symptoms and forms of non-suicidal self-injury (NSSI) and the significant correlation between NSSI and emotion regulation, the symptoms of low levels of NSSI appear to be the aftereffect of a high level of emotion regulation of the respondents.

## CONCLUSION

With the aforementioned results and findings, the researchers concluded the following:

1. There is a low level of non-suicidal self-injury (NSSI) among the respondents. These include mild form such as biting oneself and pulling hair out, and a moderate and severe form which includes hitting oneself on purpose.
2. There is a high level of emotion regulation among the respondents which include both cognitive reappraisal and expressive suppression.
3. There is a significant correlation between NSSI and regulated emotions among the respondents.
4. NSSI is considered as the aftereffect of emotion regulation of the respondents.

## RECOMMENDATIONS

Based on the findings and conclusions made, the following are hereby recommended:

1. It is suggested that adolescents should be taught how to properly regulate their emotions and guide to appropriate behaviors by their parents at home and teachers at school.
2. The results are also recommended to Psychologists and other mental health professionals to conduct an assessment of emotion regulation and suicidal behavior (including suicidal ideation, attempt, and non-suicidal self-injury) where these adolescents are studying. In addition, due to the limited knowledge about the cases of NSSI in the Philippines due to unreported incidents, they are suggested to continue engaging themselves in research that talks about emotion regulation and NSSI and provide appropriate intervention plans for lessening the cases of NSSI.
3. Future researchers who wish to conduct similar research should provide specific factors that could identify the causes of emotion regulation and NSSI. It is also recommended that future researchers should take into account the age onset, and duration of emotion regulation ability of their future respondents and a wide range of studies on the symptoms and forms of NSSI.

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