

# Negative Life Events, Perceived Stress, Social Support, and Non Suicidal Self Injury among Junior High School Students: Basis for Guidance and Counseling Program Enhancement

Lingling Kong<sup>1,2</sup>, Elna R. Lopez<sup>1,\*</sup>, Yuhan Bao<sup>2</sup>

<sup>1</sup>Lyceum of the Philippines University - Batangas, Batangas City 4200, Philippines

<sup>2</sup>Binzhou Medical University

\*Corresponding author: Elna R. Lopez (Email:elna\_lopez1967@yahoo.com)

## Abstract

The purpose of the study was to explore the differences demonstrate of non suicidal self injury, and relationship among life events, perceived stress, social support, and non-suicidal self-injury among junior high school students as basis for guidance and counseling program enhancement. In this study, the cluster sampling method was used to investigate 1851 Junior High School students by using Adolescent Life Events Scale, Perceived Stress Scale, Perceived Social Support Scale and the Adolescent Self-Injury Scale. The results showed that 23.8% of the surveyed junior high school students had non-suicidal self-injury behaviors. All dimensions of life events scale were negatively correlated with perceived social support, however, dimension of life events were positively correlated with the dimension of perceived stress, but negatively correlated with stress coping ability perception, and perceived social support scale were negatively correlated with perceived stress.

## Keywords

Negative life events, Perceived stress, perceived social support, Non-suicidal self-injury, Junior high school students.

## 1. Introduction

With the growth of individuals, teenagers who enter puberty face unprecedented challenges in life. Compared with childhood, teenagers face more and more negative life events. In the face of setbacks and negative life events, if individuals do not have a good way to vent their emotions, they may use non-suicidal self-injury behavior to vent their negative emotions. Non suicidal self injury (NSSI) is not for the purpose of suicide, intentional and repetitive injury to one's own body, which can be manifested as scratches, burns, scalds, hitting the head against the wall and other forms ( Bikmazer et al., 2023). These behaviors are not recognized by society and have low fatality, but they can increase the risk of suicide of self-injured people ( Kim& & Yu 2022). With the deepening of research, the detection rate of this behavior in a variety of disorders is also very high. In addition, there are also NSSI behaviors in non-clinical patients. The focus of the study gradually changed from the simple reporting of incidence to the description of individual behavior, influencing factors and intervention of NSSI behavior. However, in China, the research on NSSI is still in its infancy.

A meta-analysis of non-suicide injuries worldwide from 2010 to 2021 involving 264,638 adolescents showed that the incidence of non-suicide injuries ranges from 17.9% to 26.6% (Xiao et al., 2022). NSSI behavior has a certain concealment, not easy to detect. Studies have shown that individuals who have had NSSI behavior have a suicide risk of 0.7% in the first year, which is 66 times that of people without suicidal self-injury behavior. Therefore, NSSI behavior

will not only cause physical damage, but also damage their psychological health, and even possess a suicidal risk, causing great burden to the family and society. Therefore, the discussion on the influencing factors and mechanism of teenagers' NSSI behavior is particularly important and prominent.

Negative life events in adolescence mainly include learning stress, interpersonal problems and early traumatic experiences (abuse, bullying and neglect, etc.). There are many studies on the effects of life events on NSSI in adolescents, but most of them focus on early trauma (Holdenet al., 2022; Laporte et al., 2023). The results show that life events can independently predict NSSI behavior of adolescents. According to the experience avoidance model, life events, as a source of stress, are easy to cause negative emotions such as anxiety and depression, and individuals may alleviate or escape these negative emotions through NSSI behavior. Some studies have also found that the score of self-injured people on the life events scale is significantly higher than that of non-self-injured people. The detection rate of self-injury behavior in adolescents with life events in childhood was higher than that in adolescents without life events in childhood. Some studies have found that people with NSSI behavior have more negative emotional experience and weaker ability to regulate events that negatively impact our lives.

Stress perception means that if there is a threatening stimulus in the individual's environment, the individual will make a cognitive evaluation of the threatening stimulus and thus respond to the stimulus. That is to say, the experience affects the individual's mental and physical responses to threatening stimuli. Research shows that teenagers' stress perception of life events can significantly predict the occurrence of NSSI behavior, mainly from learning and interpersonal relationships. In addition, individual sensitivity to stress, economic circle and emotion was also significantly correlated with NSSI behavior. During the epidemic period, long-term home lifers' perceptions of stress was significantly higher than that of the frequent travel group.

As a protective factor, social support can alleviate the impact of life events on individual negative emotions. When individuals are faced with life events, social support is a protective factor to buffer the negative impact of life events on individuals. Understanding social support refers to the individual's feeling and evaluation of social support. As an important external resource, it is of great significance to individual mental health. Individuals with high ability of social support feel better support from family, school and society, are more likely to experience sense of security, happiness and satisfaction, and tend to form a positive attitude of recognition to the surrounding environment. Perceived social support is more predictive of individual mental health than actual social support (Ferber et al., 2022; Cheng et al., 2022). In addition, perceived social support can also affect the emergence of suicidal idealization in individuals.

In terms of life events and NSSI, there may be life events affect junior high school students' self-injurious behavior through the chain intermediary of social support and stress perception. Therefore, this study intends to take students in junior high school as subjects to explore the effects of life events, perceived social support and stress perception on NSSI behavior, and to explore the relationship, so as to lay a foundation for the intervention of students with NSSI behavior among adolescents, as basis for guidance and counseling program enhancement.

## 2. Methods

### 2.1. Research Design

This study adopts the cluster extraction investigation method of research using different standardized tools as main gathering instruments in obtaining quantitative responses from the respondents for the provision of relevant and accurate information that is conducted via survey.

## 2.2. Participants

1851 junior high school students in one middle school in Shandong Province, China, participated in this survey. They were selected using the method of cluster sampling where students were divided into different grade levels. The junior high school students were clustered through the help of their class adviser's guidance regardless if they manifested self-injurious behavior or not and are currently enrolled.

## 2.3. Measures

Adolescent Life Events Scale (ASLEC). This was utilized to measure the respondents life events compiled by Liu Xianchen, which includes interpersonal relationship, learning stress, punishment, loss, health, and adaptation. It has 27 items, all of which are positive single choice questions. Each question was evaluated using Likert6 points. In the study, the total table Cronbach's  $\alpha$  coefficient is 0.948.

Perceived Stress Scale (PSS). This is a self reported scale compiled by Cohen in 1983 which is used to evaluate the level of stress felt by individuals in nearly a month (Nidup et al., 2022). The PSS-10 version consists 10 items, in which the crisis perception factor contains 6 negative description items, and the coping ability perception factor contains 4 positive description items. According to the study, the total table Cronbach's  $\alpha$  coefficient is 0.706.

Perceived Social support scale (PSSS). The scale was compiled by Zimet in 1987, and the translation of Jiang Qianjin in 1999 was introduced into China. The 12-item scale is composed of three dimensions including support from family, friends and others. According to the study, the total table Cronbach's  $\alpha$  coefficient is 0.974.

Adolescent Self- Injury Scale. The self-injury behavior was evaluated by the product of the number and degree of self-injurious behavior, and finally the cumulative scores of all items was obtained. According to the scores, respondents can be divided into two variables with or without self-injury. "none" means that the cumulative score is 0, that is, the individual's choice on all items is "none"; "have" means that the cumulative score is greater than or equal to 1. According to this study, the Cronbach's  $\alpha$  is 0.974.

## 3. Procedure

Survey respondents were asked to fill out an online questionnaire. The content to be filled in includes three parts: informed consent form, basic information and questionnaire. The study carried on the online questionnaire survey through the Wen Juan Xing (A popular online survey tool in China), uses SPSS25.0 to analyse the data, the specific analysis methods include descriptive statistics, independent sample ontology test, chi-square test, and analysis of variance.

## 4. Results

Table 1 presents the comparison of the respondents demographics in terms of their NSSI. From the table it can be displayed that there were significant differences in gender (chi-square=31.76,  $P < 0.0001$ ) and the number of children in family (chi-square=5.438,  $P < 0.05$ ).

**Table 1.** Comparison of the Respondent’s Demographic Profile in terms of their NSSI behavior  
n = 1851

Profile	Total number	No self injury group(n=1410)	Self injury group(n=441)	Chi-square value	P
Sex					
Male	972	792 ( 81.5% )	180 ( 18.5% )	31.76	0.001
Female	879	618 ( 70.3% )	261 ( 29.7% )		
Study Grade					
First	392	302 ( 77.0% )	90 ( 23.0% )	1.862	0.394
Second	585	434 ( 74.2% )	151 ( 25.8% )		
Third	874	674 ( 77.1% )	200 ( 22.9% )		
Current Co-resident					
Parents	1803	1377 ( 76.4% )	426 ( 23.6% )	1.704	0.427
Grandparents	40	28 ( 70.0% )	12 ( 30.0% )		
Others	8	5 ( 62.5% )	3 ( 37.5% )		
Family Structure					
Single parent	106	79 ( 74.5% )	27 ( 25.5% )	1.011	0.603
Two parents	1701	1300 ( 76.4% )	401 ( 23.6% )		
Reorganized Family	44	31 ( 70.5% )	13 ( 29.5% )		
Registered residence					
Cities and towns	1163	895 ( 77.0% )	268 ( 23.0% )	1.052	0.305
Rural area	688	515 ( 74.9% )	173 ( 25.1% )		
Number of children					
Family with Only child	455	365 ( 80.2% )	90 ( 19.8% )	5.438	0.020
Family with many children	1396	1045 ( 74.9% )	351 ( 25.1% )		

**Table 2.** Relationship of the Respondents Negative Life Events to Perceived Stress and Perceived Social Support

n=1851

Profile	Punishment		Loss		Interpersonal Stress		Learning Stress		Adaptive	
	rxxy	p-value	rxxy	p-value	rxxy	p-value	rxxy	p-value	rxxy	p-value
Family support	-.317**	.000	-.302**	.000	-.420**	.000	-.389**	.000	-.428**	.000
Friends support	-.269**	.000	-.258**	.000	-.357**	.000	-.301**	.000	-.344**	.000
Others support	-.275**	.000	-.279**	.000	-.380**	.000	-.335**	.000	-.395**	.000
Overall PSSS	-.301**	.000	-.294**	.000	-.405**	.000	-.359**	.000	-.409**	.000
Crisis	.513**	.000	.456**	.000	.655**	.000	.734**	0.000	.640**	.000
Coping	-.078**	.001	-.069**	.003	-.096**	.000	-.144**	.000	-.062**	.008
Overall PSS	.411**	.000	.365**	.000	.527**	.000	.565**	.000	.538**	.000

Legend: Relationship is significant at 0.05 alpha level

Note: Those highlighted are considered significant

Table 2 presents the relationship between negative life events, stress perception and social support perception. The negative life event and its dimensions were significantly correlated with the social support, and its dimensions.

**Table 3.** Relationship of the Respondents Perceived Social Support to their Perceived Stress  
n=1851

Profile	Crisis Perception			Coping Ability			Overall Stress		
	rxxy	p-value	Int.	rxxy	p-value	Int.	rxxy	p-value	Int.
Family	-.401**	.000	S	-.458**	.000	S	-.401**	.000	S
Friends	-.307**	.000	S	-.364**	.000	S	-.307**	.000	S
Others	-.360**	.000	S	-.419**	.000	S	-.360**	.000	S
Overall PSS	-.374**	.000	S	-.434**	.000	S	-.374**	.000	S

Legend: Relationship is significant at 0.05 alpha level, S = Significant, NS = Not Significant

Table 3 shows the relationship between social support perception and perceived stress. Perceived social support and stress perception are negatively correlated.

## 5. Discussion

The results demonstrated that, on the whole, the incidence of no suicidal self-injury behavior of girls is higher than the incidence of boys, follow previous research ( Poudel et al., 2022; Wilkinson., 2022) . The possible reasons are as follow, one is the difference of physiological mechanism in gender. There are differences in brain development mechanism and hormone levels between men and women, which may lead to differences in the incidence of NSSI between men and women. It is associated to the different characteristics of psychological development of boys and girls, such as sensitive in emotion, way of dealing with problems.

The results demonstrate that the incidence of self-injury of non-only children is higher than the incidence of only child. With the performance of the family planning policy in 1979 ( Ning et al., 2023), a special group of only child appeared in China. With the impression of economic and various factors, the 2011 policy allows parents who are only children to have the second child ( Li et al, 2019) ; in 2013, it allows parents who are only children to have the second child; and the 2021 policy allows three children ( Kushnir et al. 2022). Although brothers and sisters are of great meaning to the growth and development of children ( Guidotti et al., 2021), only child, as the center of the family, receives more attention to life and study, and parents can find their children's negative feelings and behaviors more timely, and give more emotional counseling to decrease the occurrence of bad behaviors such as self-injury.

Perceived social support is correlated with negative life events. Negative life events are associated with a perceived lack of social support. Some studies have revealed that negative events e.g. the rupture of attachment relationship and neglect will have a serious impact on teenagers' social communication ability, and the bad parent-child relationship will seriously affect teenagers' perception and evaluation of social support. The problem of interpersonal stress in life events will result in a significant reduction in the perceived social support level .

On the other hand, understanding social support could alleviate the negative affect of negative life events. As stated by the buffer period theory, as a self-protection mechanism within the individual, social support effectively decrease the adverse stimuli's negative effects, regulate the relationship of negative stimuli and psychological health, and make the individual physically and mentally healthy. Studies have revealed that parents social support can help children better cope with stressful lives. As an important positive psychological resource, social support could enhance the individual's skill to solve problems, effectively reduce the stress response and lessen the negative impact on the individual.(Schwartz-Mette et al, 2019; Singstad et al,2020; Jeličić et al., 2022).

Negative life events and stress perception were significantly correlated . Individuals who have higher score of negative life events, they may have higher stress perception level . The reason

is that stress perception is a reply to stress time. The more negative life events students have, the more complex problems they need to deal with, so they must mobilize more time and energy to pay attention to these things. When students are at school, the main task is learning and interpersonal relationships, most of their experiences are in these two aspects, the energy of their own normal study life is squeezed, they will feel more pressure ( Haight et al, 2022).

Understanding social support helps to perceive stress. Understanding social support helps individuals change their cognition of stress, teaching individuals in stressful situations how to deal with stressful events, then they can change their perception of stress. This is also in line with the social support perception buffer model, individuals who perceive more social support, can buffer the sense of crisis, have an impact on stress in a specific period of time, and then make the brain less aware of unsafe factors.

## 6. Conclusions

1.The number and degree of self-injury of the respondent is relatively low, and the self-injury is hidden. Pay more attention to the group.

2.The more negative life events the participants encountered, the more the individual perceived stress and the lower the perceived social support level.The more stress participants experienced, the less social support they perceived.

## References

- [1] Bikmazer, A., Koyuncu, Z., Kavruk Erdim, N., Kadak, M. T., Tarakcioglu, M. C., Gokler, E., ... & Ozer, O. A. (2023). Association of dissociation with suicide attempt and non-suicidal self injury in adolescents with a history of sexual abuse. *Psychiatry*, 86(1), 17-28.
- [2] Cheng, B., Roberts, N., Zhou, Y., Wang, X., Li, Y., Chen, Y., ... & Wang, J. (2022). Social support mediates the influence of cerebellum functional connectivity strength on postpartum depression and postpartum depression with anxiety. *Translational Psychiatry*, 12(1), 54.
- [3] Ferber, S. G., Weller, A., Maor, R., Feldman, Y., Harel-Fisch, Y., & Mikulincer, M. (2022). Perceived social support in the social distancing era: the association between circles of potential support and COVID-19 reactive psychopathology. *Anxiety, Stress, & Coping*, 35(1), 58-71.
- [4] Guidotti, L., Musetti, A., Barbieri, G. L., Balocchi, I., & Corsano, P. (2021). Conflicting and harmonious sibling relationships of children and adolescent siblings of children with autism spectrum disorder. *Child: Care, Health and Development*, 47(2), 163-173.
- [5] Haight, S. C., Gallis, J. A., Chung, E. O., Baranov, V., Bibi, A., Frost, A., Hagaman, A., Sikander, S., Maselko, J., & Bates, L. M. (2022). Stressful life events, intimate partner violence, and perceived stress in the postpartum period: longitudinal findings in rural Pakistan. *Social Psychiatry and Psychiatric Epidemiology*, 57 (11), 2193-2205.
- [6] Holden, R. R., Patterson, A. A., & Fekken, G. C. (2022). Childhood trauma and non-suicidal self-injury: mental pain and depression as mediators in university and community samples?. *Personality and Individual Differences*, 187, 111414.
- [7] Kim, M. S., & Yu, J. (2022). Text mining for identifying the nature of online questions about non-suicidal self-injury. *BMC Public Health*, 22(1), 1-10.
- [8] Kushnir, V. A., Smith, G. D., & Adashi, E. Y. (2022). The Future of IVF: The New Normal in Human Reproduction. *Reproductive sciences (Thousand Oaks, Calif.)*, 29(3), 849-856.
- [9] Jeličić, L., Janković, S., Sovilj, M., Bogavac, I., Drobnjak, A., Dimitrijević, A., & Subotić, M. (2022). Maternal Anxiety and Its Associated Factors During the First and Second Wave of COVID-19

- Pandemic in Serbia: A Cross-Sectional Study. *Psychology Research and Behavior Management*, 15, 3775–3792.
- [10] Laporte, N., Ozolins, A., Westling, S., Westrin, Å., & Wallinius, M. (2023). Adverse childhood experiences as a risk factor for non-suicidal self-injury and suicide attempts in forensic psychiatric patients. *BMC Psychiatry*, 23(1), 238.
- [11] Li, H. T., Xue, M., Hellerstein, S., Cai, Y., Gao, Y., Zhang, Y., ... & Liu, J. M. (2019). Association of China's universal two child policy with changes in births and birth related health factors: national, descriptive comparative study. *Bmj*, 366.
- [12] Ning, N., Peng, C., Qi, M., Li, X., & Sun, M. (2023). 'Nobody comes to help us': lived experiences and needs of older adults who lost their only child in China. *International Journal of Qualitative Studies on Health and Well-being*, 18(1), 2153424.
- [13] Schwartz-Mette, R. A., & Lawrence, H. R. (2019). Peer Socialization of Non-Suicidal Self-Injury in Adolescents' Close Friendships. *Journal of Abnormal Child Psychology*, 47(11), 1851-1862.
- [14] Singstad, M.T., Wallander, J.L., Lydersen, S., Wichstrøm, L., & Kaye, N. S. (2020). Perceived social support among adolescents in residential youth care. *Child & Family Social Work*, 25(2), 384-393.
- [15] Poudel, A., Lamichhane, A., Magar, K. R., & Khanal, G. P. (2022). Non suicidal self injury and suicidal behavior among adolescents: co-occurrence and associated risk factors. *BMC Psychiatry*, 22(1), 96.
- [16] Wilkinson, P. O., Qiu, T., Jesmont, C., Neufeld, S. A. S., Kaur, S. P., Jones, P. B., & Goodyer, I. M. (2022). Age and gender effects on non-suicidal self-injury, and their interplay with psychological distress. *Journal of Affective Disorders*, 306, 240–245.
- [17] Nidup, Y., Chetri, D. R., Wangchuk, S., Jamtsho, T., & Bhandari, B. (2022). Perceived Stress of High School Students. *Journal of Research in Social Sciences and Language*, 2(2), 95-107.
- [18] Xiao, Q., Song, X., Huang, L., Hou, D., & Huang, X. (2022). Global prevalence and characteristics of non-suicidal self-injury between 2010 and 2021 among a non-clinical sample of adolescents: A meta-analysis. *Frontiers in psychiatry*, 13, 912441.