

# Emotional abuse and blunted systemic inflammation increased susceptibility of non-suicidal self-injury behavior in adolescence with mental disorders

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## Introduction

Non-suicidal self-injury (NSSI) is a serious social problem, which exists widely among adolescents. The aim of this study was to investigate the characteristics and related factors of NSSI in adolescents with mental disorder.

Keywords: Non-suicidal self-injury, Adolescents, Mental disorder, Childhood trauma;

#### Results

The scores of OSI (p<0.001), SDS (p=0.001), SAS (p<0.001) and Emotional Abuse of CTQ-SF (p=0.003) were significantly higher in the group of adolescents with NSSI than the group without NSSI. In terms of hematological indicators, the levels of leukocyte (p=0.036), neutrophil (p=0.033), hemoglobin (p=0.018) and uric acid (p=0.001) in patients with NSSI were lower than controls.

As shown in table 1, binary logistic regression analysis was employed to explore the association between NSSI behavior and various variables.

As shown in figure 1(a-c), a correlation analysis was conducted to explore the relationship between childhood abuse, OSI and clinical features in patients with NSSI.

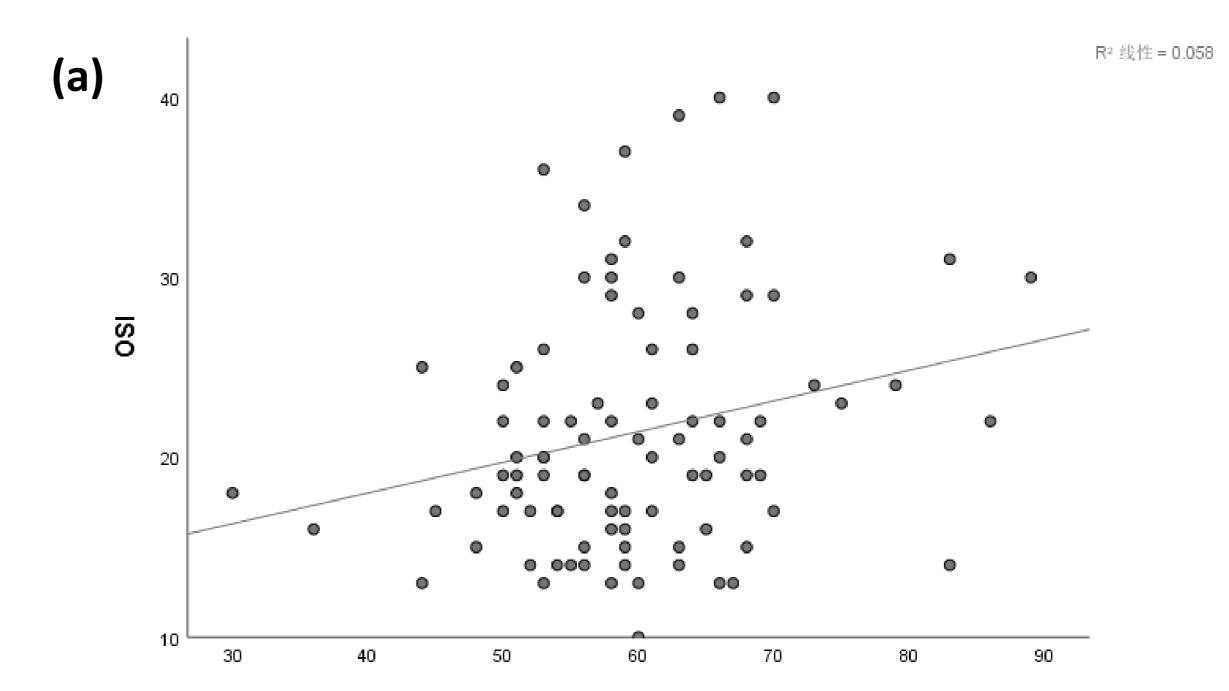
table1				
	В	SE	OR	<i>P</i> -value
gender	3.714	1.372	40.999	0.007
family status				0.030
family status (1)	-1.175	0.898	0.309	0.191
family status (2)	0.456	1.686	1.578	0.787
family status (3)	4.205	1.506	67.014	0.005
personality (1)	2.271	1.004	9.691	0.024
SDS	0.149	0.058	1.160	0.011
diagnosis				0.011
diagnosis (1)	-5.345	2.514	0.005	0.033
diagnosis (2)	-23.604	24792.306	0.000	0.999
diagnosis (3)	4.878	1.481	131.331	0.001
diagnosis (4)	1.124	0.927	3.076	0.225

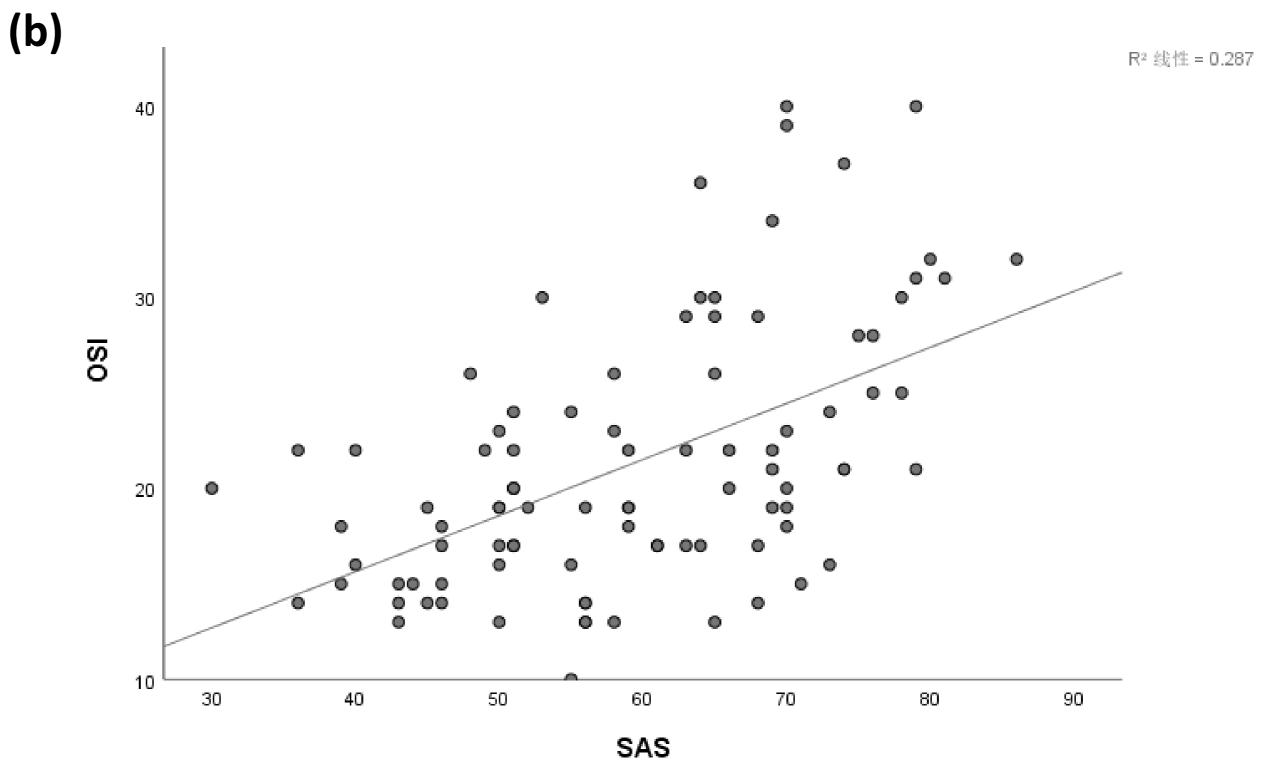
Notes: SDS: Self-Rating Depression Scale.

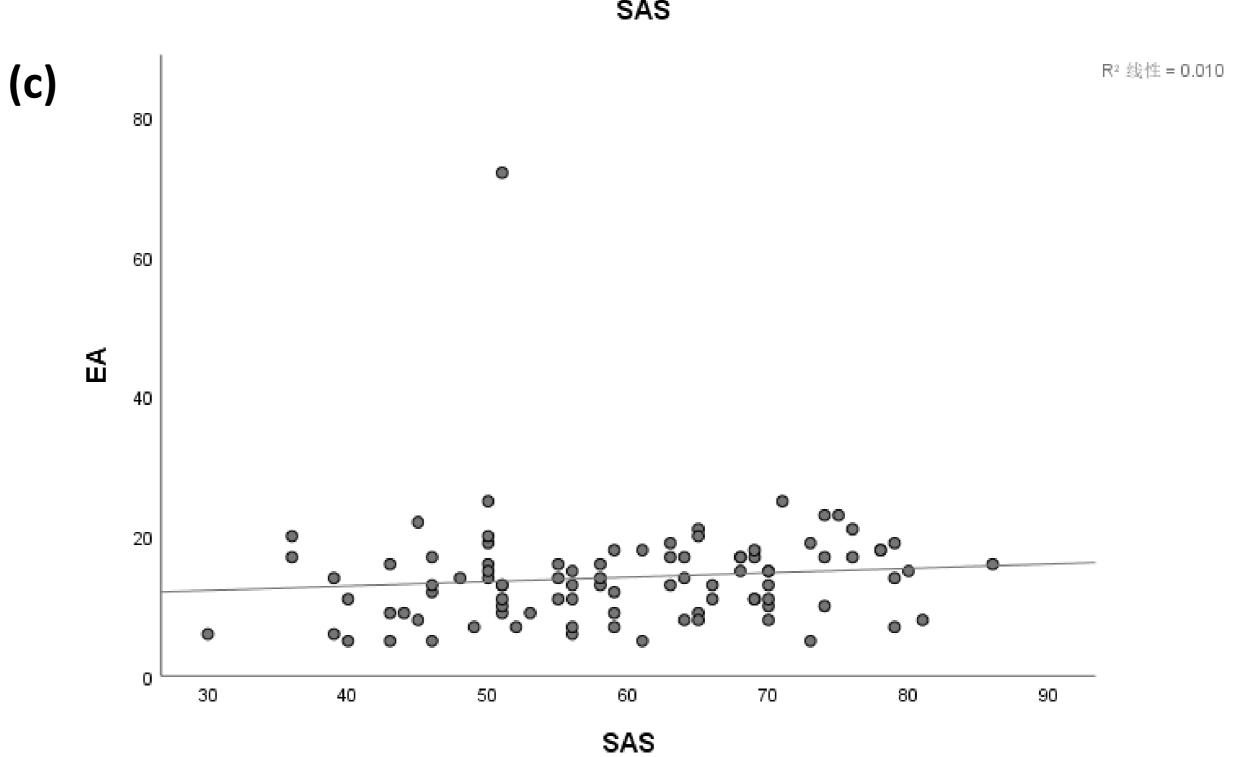
## Methods

Methods: 92 adolescents with mental disorders with NSSI behavior (NSSI group) and 43 adolescents without NSSI behavior (control group) were included in this study. The Ottawa Self-injury Inventory (OSI) was used to assess the severity of NSSI. The Childhood Trauma Questionnaire-Short Form (CTQ-SF) was used to assess the traumatic experiences of children. Self-Rating Depression Scale (SDS) and Self-Rating Anxiety Scale (SAS) were used to evaluate assess depression and anxiety symptoms. Meanwhile, peripheral cell inflammation levels, blood lipids and metabolic levels of enrolled patients were measured, and the differences between the two groups were compared. Binary logistic regression analysis was used to explore the association between NSSI behavior and various variables. To further explore the relationship between childhood abuse, non-suicidal NSSI and clinical features in NSSI patients, a correlation analysis was conducted.

Figure 1







Notes: OSI: The Ottawa Self-injury Inventory, SDS: Self-Rating Depression Scale, SAS: Self-Rating Anxiety Scale, EA: emotional abuse;

# Conclusions

Adolescents with mental disorders associated with NSSI were more likely to have changes in cellular inflammatory levels, and NSSI is more likely in females, those with family problems, and those with depression.