



Investigation on the Incidence of Nonsuicidal Self-Injury Among Adolescents in China

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Abstract: This study investigates the incidence and influencing factors of nonsuicidal self-injury (NSSI) among adolescents in China. Using a group sampling method, 1,368 students from a high school in Guangxi Province participated in the study by completing electronic questionnaires. The NSSI diagnostic criteria from the DSM-5 were applied to identify cases. Results revealed an NSSI incidence rate of 18.72%, with no significant gender differences. However, significant variations were observed based on age, residence, mental health status, family environment, social relationships, and academic performance. The study underscores the need for targeted prevention and intervention programs by health sectors, educational institutions, and policymakers to mitigate the prevalence of NSSI and promote adolescent mental health.

Keywords: Nonsuicidal selfinjury, Youth, incidence, risk factors; early prevention intervention

Introduction

Nonsuicidal self-injury (NSSI) is defined as the deliberate, self-inflicted damage to body tissue without any intent to commit suicide. This behavior includes actions such as cutting, scratching, burning, and hitting oneself, which result in mild to moderate physical harm but are not life-threatening. NSSI is particularly prevalent among adolescents and is often linked to a variety of factors, including psychological issues, family environment, and social relationships. Understanding the incidence and determinants of NSSI among adolescents is essential for developing effective prevention and intervention strategies to address this significant public health concern.

Literature Review

NSSI is a worldwide social public problems, frequent repeated self harm is an important risk factor of suicide, and suicide is the second largest cause of global youth 1529 youth [1] in recent years, Chinese adolescent suicide behavior caused the attention of the general society, research show that the NSSI behavior history of individual suicide risk is significantly higher than the general population, and often face more mental health problems, serious damage to their physical and mental health and social function [2]. This study aimed to investigate the incidence of NSSI in China and analyze the relevant influencing factors to provide the development of NSSIR prevention, intervention programs and policy making by the health sector, education system and schools in China.

Description of the Study Area:

In this study, using group sampling method, 1368 students from a high school in Guangxi Province were selected as the research objects. Electronic questionnaires were distributed, and 1368 electronic questionnaires were distributed. A total of 1346 valid questionnaires were collected, of which 711 (52.82%) were boys and 635 (47.18%) were girls. Between 14 and 19 years, The inclusion criteria met the NSSI diagnostic criteria recommended in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5): ① In the past 1 year, 5 times, Individuals engaged in intentional self-damage to the body surface that may induce bleeding, bruises, or pain (e. g. cuts, burning, wounds, stabbing, hitting, excessive friction), These injuries are expected to cause only mild or moderate somatic damage; ② Individuals engage in self-harm behavior in order to obtain relief or solve interpersonal difficulties or induce from negative sensory or positive cognitive states; ③ These intentional self-injury is related to the occurrence of interpersonal difficulties or negative sensory thoughts or addiction to uncontrollable intentional behaviors or frequent desire to self-harm before the action; ④ This act is not recognized by the society, Nor is it limited to catching sores or biting nails; ⑤ The behavior or outcome causes clinically meaningful distress, Or interfere with interpersonal, academic or other important functions; ⑥ This behavior occurs not only during psychotic attacks, speech errors, substance poisoning, or substance withdrawal, The behavior cannot be better explained by other mental disorders and somatic diseases. Patients voluntarily signed the informed consent form.

In this study, the self-compiled Basic Information Questionnaire and the NSSI Behavior Questionnaire compiled by Wan Yuhui, Liu Wan were suitable for Chinese teenagers to collect health records for 1368 students in a high school in Guangxi Province. The questionnaire included basic information, behavioral questionnaire (12 items, including two dimensions: self-injury behavior without obvious tissue injury and self-injury behavior with obvious tissue injury) and



functional questionnaire (19 items, including three dimensions of self-interested social interaction, self-negative reinforcement and emotional expression). It is used to assess the occurrence and severity of NSSI behavior in Chinese adolescents in the past year. The higher the total score is, the worse the NSSI degree of the subjects are. Descriptive statistics were used to analyze the incidence of NSSI, and all statistical analyses were performed using the SPSS 22.0 software.

Model construction and Productivity-research relationship:

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Estimation:

In this study, a descriptive statistical analysis of adolescent NSSI behavior using SPSS23.0, result display, In a high school teenager in Guangxi Province, The detection rate of NSSI behavior and the frequency of NSSI in 5 times were 18.72% (252 / 1346), 81.28% (11211 / 1346), Among the boys, the detection rate of NSSI was 19.54% (139 / 711), The detection rate of NSSI in girls was 17.79% (113 / 635); Significant tissue damage was observed in 88.49% (29 / 252), 11.51% (223 / 252) of the group, 18.72% 252 persons. No differences in NSSI behavior in gender, in the only child, non-only child, in the dimension of no obvious tissue impairment and significant impairment ($P > 0.05$). The incidence of NSSI varied significantly by age, residence, mental health, family environment, social relationships, and academic status ($P < 0.05$).

Results and Discussion

NSSI behavior not only cause harm to the physical tissue of teenagers, more serious is that the behavior can lead to different degrees of mental health problems [3], in view of the NSSI independent clinical characteristics and high harmfulness, in the new published Diagnostic and statistical manual of mental disorders 5th edition, the NSSI as an independent clinical barriers to [4], suggesting that adolescent NSSI behavior we need to pay more attention.

Studies have shown that NSSI behavior is prevalent globally, with the incidence of NSSI varying across countries. The incidence of NSSI is about 13.8% in Scotland, NSSI 15.3% in America, NSSI 24% in New Zealand, and NSSI 3.1% in Germany [5].

This phenomenon exists in all countries in the world, and the detection rate of NSSI behavior in developing countries is increasing. At present, the incidence of NSSI behavior in China is significantly higher than that in the West. In recent years, the self-injury behavior of adolescents has attracted more and more attention. Different studies also show that the adolescent NSSI behavior is particularly significant in [6].

Wan Yuhui [7] et al. selected teenagers from Beijing, Shaoxing, Guangzhou, Ezhou, Halbing, Taiyuan, Guiyang, and Chongqing for an anonymous questionnaire survey. The results showed that teenagers who performed NSSI within one year accounted for 17% of the total sample size. A joint survey in 11 European countries showed that 27.6% of the subjects had ever experienced NSSI. The incidence of NSSI behavior in Chinese adolescents is between 12.2% and 29%, which is similar to the global detection rate. By analyzing the relevant literature on NSSI behavior in the past five years, it is found that the rate of NSI in various countries is high and increasing year by year. As for the incidence of non-suicidal injury behavior, the sample population selected in different studies is different, and the incidence of self-injury behavior is also quite different, because different researchers may be different in the selection of samples and evaluation tools.

The above studies revealed that NSSI behavior has a high incidence and risk. Therefore, in order to improve the mental health level of adolescents, it is necessary to strengthen the research on adolescent NSSI behavior.

In this study, we selected the NSSI Behavior Questionnaire suitable for adolescents in China compiled by Wan Yuhui et al. This questionnaire combined with the relevant domestic and foreign questionnaires and the actual characteristics of China, and constructed the behavior questionnaire and functional questionnaire suitable for adolescents in China. The behavioral questionnaire is divided into two dimensions: self-injury behavior without obvious tissue injury and the behavior with obvious tissue injury. The functional questionnaire is divided into three dimensions: self-interested social interaction, self-negative reinforcement, and emotional expression. The test from the perspectives of homogeneous reliability, half reliability, structure validity and standard standard correlation validity all show that adolescent NSSI Behavior Questionnaire meets the requirements of psychological questionnaire design, and has high credibility and stability [8]. In this study, the descriptive statistical analysis using SPSS23.0 showed that the detection rate of NSSI behavior and the occurrence frequency of NSSI in a high school adolescents in Guangxi Province were 18.72%.

NSSI has been reported globally, and the incidence rate varies in different regions and countries. Epidemiological investigations indicate a relatively high incidence of NSSI in certain populations, such as adolescent and adult patients with mental disorders. The results of this study suggest that the incidence of NSSI behavior of teenagers in China is high, parents, teachers, schools and social people from all walks of life attach great importance and attention, attaches great importance to establish health records for teenagers on campus, actively carry out early screening assessment, actively carry out psychological intervention treatment, to ensure the psychosomatic health of teenagers.

The occurrence of NSSI is related to multiple factors, such as psychological factors (e. g., emotional regulation difficulties, depression, anxiety, post-traumatic stress disorder), social factors (e. g., poor family function, peer stress, social exclusion), and individual traits (e. g., impulsivity, history of self-harm). NSSI behavior may lead to physical injury, infection, psychological post-traumatic stress disorder (PTSD), and suicidal behavior, and so on. Alternatively, NSSI may influence adolescent social relationships, daily life functioning, and learning performance. This study provides important information on the incidence and influencing factors of NSSI in adolescents in China. It helps the health sector, education

system and schools to develop NSSIR prevention, intervention program and policy development to reduce the incidence of NSSI and promote the mental health development of adolescents. On campus, effective early intervention measures such as the establishment of mental health records, carry out early screening evaluation, actively carry out early psychological intervention treatment such as dialectical behavior therapy, cognitive behavior therapy, family therapy, social support and so on to help teenagers learn more healthy emotional regulation strategies, improve mental health. Although existing studies have explored NSSI, more research is needed to gain insight into the complexity of NSSI, including its exact occurrence mechanism, prevention strategies and how to provide the treatment and support effectively.

Conclusion

The findings of this study highlight the significant incidence of NSSI among adolescents in China, emphasizing the urgent need for effective prevention and intervention strategies. The high detection rate of NSSI and its association with various psychological, social, and individual factors indicate that this behavior poses a substantial risk to adolescent mental and physical health. Schools, healthcare providers, and policymakers must collaborate to establish comprehensive mental health records, implement early screening and assessment, and provide appropriate psychological interventions. Future research should focus on elucidating the complex mechanisms underlying NSSI, developing robust prevention strategies, and enhancing support systems to effectively address this critical public health issue.

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