

A Review of Interpersonal Factors Influencing Non-Suicidal Self-Injury Behavior in Adolescents

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Abstract: *Non-suicidal self-injury (NSSI) significantly jeopardizes the healthy development of adolescents. Grounded in the interpersonal perspective, this paper systematically reviews the influence of interpersonal factors on adolescent NSSI. Existing research is categorized into three dimensions: parent-child relationships, peer relationships, and teacher-student relationships. To promote the healthy development of adolescents, a three-pronged mechanism has been established to prevent self-injurious behavior. This mechanism focuses on the family, the school, and collaboration between the two, aiming to clarify the pathways through which their influence can help adolescents in need.*

Keywords: *non-suicidal self-injury; adolescents; interpersonal relationships; influencing factors; mental health education*

1. Introduction

Non-suicidal self-injury (NSSI) is generally defined as the intentional harming of one's own body without the intention of committing suicide, including intentional cutting, scratching, burning, and scalding oneself. It has been included as a separate disorder in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition.^[1] Global Burden of Disease data for 2019 show that non-suicidal self-injury poses a significant socio-economic burden, and self-injurious behaviors have become a key social concern globally. Data suggests that the prevalence of NSSI among adolescents in the United States is 17.2%, compared to 5.5% among adults.^[2] According to a meta-analysis conducted in China, the prevalence of non-suicidal self-injury among secondary school students in Chinese mainland was found to be 27.4%.^[3] This rate was found to be higher than the general prevalence rate in foreign countries and has been observed to increase steadily in recent years. In-depth research on the influencing factors of self-injury in adolescents is of great significance and urgency.

Existing research indicates that there are multiple factors contributing to adolescent non-suicidal self-injury (NSSI), broadly categorized as internal and external factors, with interpersonal factors falling into the latter category. Internal factors include personality traits, psychological factors, and biological factors.^[4] While there is a substantial body of research on internal factors, studies on external factors are relatively limited, often fragmented, and lacking in coherence. Therefore, this paper focuses on examining and organizing external factors, particularly the influence of relationships, namely parent-child relationships, peer relationships, and teacher-student relationships, on adolescent NSSI. In the course of the study, an overview was conducted according to the adolescent growth cycle, following the system of family relationships, peer relationships, and teacher-student relationships in that order. Family serves as the micro-environment individuals encounter from birth, with parent-child relationships being a crucial component within the family system. After entering adolescence, individual self-discipline and independence increase, and interaction with peers gradually increases, with peer relationships occupying an important place in interpersonal relationships. The teacher-student relationship holds great significance as the fundamental interpersonal connection within a school, serving as a vital avenue for adolescents to engage and connect with one another.

2. Parent-Child Relationships

In the interpersonal/systems model, self-harm is considered a direct consequence of family or environmental dysfunction. The family, being the primary context for individual growth, encompasses core components such as family relationships. Among these, parent-child relationships are paramount.^[5] Parent-child relationships refer to the interactions and connections between parents and their children.

The ecosystem perspective sees the family environment as constituting the microstructure of individual growth and is seen as the most central part of analysis in the ecological model of human development. Within this context, parents exert profound influence on adolescent behavior patterns through their language education and actual behavior. Therefore, within the family environment, parent-child relationships emerge as crucial factors influencing individual growth and adaptability. Therefore, in the family environment, the parent-child relationship becomes a key factor affecting the growth and adaptability of individuals. In the past domestic and international studies, the main indicators of parent-child relationships covered parent-child attachment, parental conflict, and parenting style. As a result, the relationship between parents and children becomes a crucial element in shaping and adjusting individuals' adaptability within the family setting. Previous research conducted both domestically and internationally focused on various aspects of parent-child relationships, including attachment, conflicts between parents, and parenting styles.

Parent-child attachment is a relatively stable relationship pattern that is formed in the parent-child relationship and has a significant impact on an individual's emotion management, personality development, and interpersonal relationships. Recent studies indicate that teenagers who grow up in environments where there is a strong parent-child relationship have a lower likelihood of engaging in non-suicidal self-harm. Conversely, those who lack high-quality relationships with their parents are at a higher risk of non-suicidal self-harm. (Victor, Hipwell, Stepp, & Scott, 2019). High-quality parent-child attachment also brings individuals better socio-emotional competence, cognitive competence, and physical and mental health. Individual adolescents with high-quality parent-child attachment are more likely to develop adaptive emotion regulation and reduce the risk of non-suicidal self-injury in adolescents. According to research by Yu Guoliang et al., middle school students who value their parents' marital happiness tend to have higher self-esteem and experience a more harmonious family atmosphere. A happy marital relationship between parents fosters increased communication and interaction between parents and children, making it easier for children to develop positive perceptions of their family, parents, and themselves. Conversely, parental conflict may lead to adolescent self-harm. Interparental conflict primarily refers to verbal or physical disputes and arguments resulting from disagreements between parents. This conflict can be described based on factors such as frequency, intensity, content, expression style (whether it is overt or covert), and whether it is appropriately resolved.

In recent years, there has been increasing research on the impact of parental conflict on children's mental health, mostly focusing on its effects on child development. The influence of parental conflict on adolescent NSSI can be summarized into three main aspects:

Firstly, based on the theory of emotional security, adolescents in families with parental conflict may experience inner insecurity, which can directly lead to negative emotions such as depression and loneliness—key factors influencing adolescent self-harm. Secondly, parental conflict increases the emotional vulnerability of adolescents. When adolescents are unable to cope with intense loneliness and depression, self-injury becomes a response to emotional imbalance.^[6] Thirdly, serious and prolonged conflict between parents can be mentally exhausting for both parents, making them less sensitive to the physical and psychological needs of their children or transferring the anger and hostility generated by parental conflict to their children, triggering a variety of undesirable cognitive biases in the children and thus triggering self-injurious behaviors.

Parenting style refers to how parents behave in their daily activities related to raising their children and encompasses a wide range of parenting behaviors. Research conducted in other countries has demonstrated that individuals who engage in self-harm are more likely to perceive that their parents have neglected their psychological, behavioral, and emotional needs. In China, strict parenting is a common phenomenon.^[7] According to a study, 50% of Chinese parents will take a strict approach to disciplining their children, influenced by the ancient Chinese concepts of parenting such as "you can't nourish a child without beating" and "filial sons come out from under the stick".^[8] After conducting cross-sectional and longitudinal studies, many scholars have reached the consensus that adolescents who experience severe parental discipline face a higher likelihood of engaging in self-injurious behavior.^[9] The main reasons for self-injury include: adolescents who grow up under harsh parental discipline suffer more psychological blows and frustrations; and they experience more negative emotions and feelings of helplessness. Adolescents may be more inclined to alleviate or escape from negative emotions through self-harm. Secondly, the desire for attention and care from others serves as reinforcement for self-harming behavior. Individuals may seek to gain parental attention and care by harming themselves. Additionally, harsh disciplinary methods such as corporal punishment by parents may subtly influence children's problem-solving approaches, making individuals more prone to resorting to violence as a means of addressing issues.^[10]

3. Peer Relationships

Research conducted among non-clinical adolescents indicates that the likelihood of self-harm increases with the escalation of interpersonal relationship risks.^[11] During adolescence, young people rely more heavily on the support of their close friends and place a greater emphasis on their friendship than their relationship with their parents. This is particularly true for left-behind children, whose parents both work outside the home, making the role of friendships even more crucial for them.^[12] Friendship, as a peer relationship formed between two individuals, is crucial for adolescents. Friendship, as a form of companionship formed between two individuals, is vital for adolescents. Friendship quality, considered a key criterion for evaluating friendship, is also a primary manifestation of peer relationships. Recent scientific research has revealed a significant correlation between friendship quality and self-harming behavior. Adolescents with lower levels of intimacy, support, and feelings of friendship security are more likely to engage in NSSI. In other words, lower levels of friendship quality may increase the risk of self-harm.^[13]

Adolescents with good peer relationships are more likely to develop prosocial behaviors due to peer care and acceptance, and to be less likely to be bullied. In the peer relationship, people who are not communicative, unpopular, interpersonal withdrawal, lack of confidence usually "will encounter peer cheating, peer excessive competition, peer exclusion, peer pressure and other problems, it is easy to be marginalized by peers and involved in school bullying, become the bully or the target of bullying."^[14] In recent years, the relationship between school bullying and non-suicidal self-injury has gained increasing attention from scholars. A domestic meta-analysis in China,^[15] which included 23 cross-sectional studies, revealed that the risk of NSSI among adolescents who have been bullied is 2.41 times higher than those who have not experienced bullying.

Bullying in schools is a repeated, deliberate and prolonged act committed by one party against another, which is humiliating and causes mental, property and physical damage or loss to the victim, and is more common in primary and secondary schools; most researchers believe that it has three typical characteristics: firstly, it is an intentional hurtful behavior; secondly, it is recurrent; and thirdly, it is an imbalance of power between the two parties.^[16] Owens proposed four peer group interaction mechanisms influencing bullying behavior: ^[17]social contagion mechanism, weakening of control over aggressive tendencies, diffusion of responsibility, and attribution of responsibility to the victim. These mechanisms contribute to the emergence of peer group bullying behavior.

^[18]Adolescents who have experienced school bullying are more likely to engage in non-suicidal self-injury. They may resort to self-harm as a way of seeking help, self-punishment, or releasing stress. When individuals face environmental influences or stressful events that exceed their capacity to cope, they may experience physiological and psychological oppression. In an attempt to alleviate this distress, they may turn to non-suicidal self-injurious behaviors. These behaviors serve as a means to relieve the subjective feeling of oppression.^[19]

4. Teacher-student relationships

Adolescents spend a significant portion of their time in school, where teachers play a pivotal and central role in their lives (Pianta, 2003), being among the most important adults who provide comfort, guidance, and support to them. Teacher-student relationships are interpersonal relationships established through mutual influence and interaction in the school environment. Positive teacher-student relationships effectively promote healthy growth and development in adolescents (Shi et al., 2022; Huang et al., 2022; Chamizo, 2021). Previous research has found that teacher-student relationships serve as protective factors for internal (e.g., depression) and externalizing problems (e.g., NSSI) in adolescents. Teachers have been referred to as the "invisible hand" in related research, arguing that they have an implicit moderating role in peer ecology. (Farmer et al., 2011).

In China's first large-scale emotional quality survey of adolescents, it was found that adolescent students' total emotional quality scores increased in tandem with their teacher-student relationships. The impact of teacher-student relationships on adolescent students' emotions is comprehensive, multi-faceted, and extremely significant.^[20] Therefore, teachers' behavior patterns and attitudes directly influence students' self-awareness. Unequal treatment of students by teachers is defined as teacher discriminatory behavior, which refers to emotional or behavioral discrimination or oppression of students exhibited by teachers in their daily teaching and interactions with students. Teacher discriminatory behavior has been found to be directly detrimental to the teacher-student relationship and to have a significant impact on

adolescents' suicidal ideation, which is an important factor in triggering adolescents' self-injurious behaviors. Teachers' discriminatory behavior may also lead to increased bullying among peers. Because teachers' discriminatory behaviors are instructive, their prejudice, discrimination and isolation of students may also convey negative messages to their peers, which can trigger peer bullying and further lead to adolescents' self-injurious behaviors. Teacher discrimination may also exacerbate bullying among peers because teachers' biases, discrimination, and isolation towards students can convey negative messages to classmates, leading to peer bullying and further exacerbating adolescents' self-harm behavior. Additionally, teacher-student relationships may regulate parent-child and peer relationships to affect adolescents' depression and self-harm. A healthy teacher-student relationship can reduce adolescent self-harm behavior by strengthening parent-child and peer relationships.^[21]

5. Preventive education recommendations for adolescent self-injury

5.1. Establishing a good parent-child relationship

5.1.1. Building a democratic, egalitarian parent-child relationship

Adolescents are in the developmental stage of self-identity, aspiring to be recognized as adults. They resist being seen as children and demand the establishment of a new type of parent-child relationship based on equality. In China, parents tend to use strict discipline to enforce obedience, which can lead to emotional estrangement. Parents should confront their children's reasonable demands, refrain from issuing authoritarian commands, and respect adolescents' thoughts and personalities. While respecting adolescent autonomy, it is also important for parents to avoid excessive indulgence.

5.1.2. Reducing the impact of parental conflict on adolescents

Firstly, parents should consciously avoid or minimize conflicts, especially in front of their children. When children become aware of conflict between their parents, parents should take appropriate approaches to dealing with the conflict and guide them in learning appropriate conflict resolution strategies. Secondly, when children experience parental conflict, parents should reasonably explain the reasons for the conflict to adolescents in order to prevent them from feeling threatened or self-blaming by blaming themselves for the conflict. Thirdly, when children encounter conflicts between parents, parents should provide emotional comfort and may apologize to the children. Doing so helps reduce children's emotional fluctuations to prevent emotional imbalance. Lastly, educators need to guide adolescents on how to handle parental conflicts correctly. For example, they are taught to avoid getting involved in disputes between their parents, which, instead of resolving the conflict, may aggravate it.^[22]

5.1.3. Maintain effective parent-child communication

Parents should encourage adolescents to express their thoughts and advocate for two-way communication with them. They should also pay attention to patiently listen and understand the true thoughts of adolescents. When parents listen to their children's expressions, they may sometimes find that their children have some "strange" ideas or views. In such cases, parents should have enough tolerance to allow their children to fully express themselves. Afterwards, they can exchange views with their children in a discursive manner, as this approach can help prevent communication blockages.^[23]

5.2. Establishing friendly peer relationships

5.2.1. Conducting mental health education to enhance peer interaction skills

Mental health teachers need to design lessons that intervene in peer relationships according to the actual needs of the students, or use group counselling, which allows students to open up and become closer to their peers during the activity sessions. In peer relationship intervention, schools can also set up special peer counseling groups, led by experienced mental health teachers, to help students build deeper friendships and grow together.

5.2.2. Address conflicts between students promptly and pay attention to their mutual communication

The class teacher has the responsibility to work closely with the school's psychological counselor. Once conflicts between students are identified, proactive mediation and guidance should be provided. If students develop more serious mental health problems, they should be provided with timely psychological counselling services to help them adjust their negative emotions. At the same time, teachers should focus on providing students with good psychological guidance and assistance to help

them form correct values and promote harmonious relationships among peers.

5.2.3. Implement effective measures to prevent bullying on campus

Schools should adopt a combination of regular and occasional surveys using the Bullying Self-Assessment Questionnaire to accurately ascertain whether students are being bullied at school, to re-examine and improve the school's monitoring system, and to keep a close watch on the various activities of students during school hours. They should review and improve the school's supervision system and closely monitor various activities during breaks. Schools should organize regular class meetings to discuss issues related to campus bullying. Parents are advised to participate in class meetings or organize parent meetings to discuss how to prevent bullying in schools and other related topics. Under the guidance of teachers, various forms of educational activities should be carried out, such as cooperation between home and school and peer assistance, to enhance teachers' and students' awareness of and ability to prevent campus bullying. In cases where bullying is detected in schools, immediate steps should be taken to intervene and stop it, as well as to engage in an in-depth dialogue with the student suspected of bullying and his/her parents. [24]

5.3. Establishing a humane and caring teacher-student relationship

5.3.1. Understand the students and act as their guide

There is a need to understand not only the current situation of each student, but also their past and to make predictions about their future. Teachers need to use a variety of ways to connect with their students, to study them in depth, to reduce the distance between them and to enhance communication.

5.3.2. Respect students and be their confidant

As students grow older and their self-awareness matures, they increasingly desire to independently tackle various issues. Teachers should understand students' uniqueness, genuinely care about them, and respect their individual growth. Meanwhile, specific groups within the school community (such as transfer students and left-behind children) should receive special attention and care, approached with a tolerant heart. Only when teachers demonstrate genuine fairness and responsibility towards students can they truly experience feelings of respect, understanding, expectation, and guidance, enabling them to better integrate into the collective, overcome feelings of inferiority, and enjoy school life.

5.3.3. Treat students equally and lead by example for them

In the educational process, teachers should treat each student in a democratic and fair manner. Research has shown that teachers play an indispensable role in educational outcomes. Under the guidance of Lewin, Lippitt, and White, a thorough study was conducted on three different leadership styles: authoritarian, democratic, and laissez-faire. It was ultimately concluded that a democratic leadership style had the most positive impact on children's ability to complete tasks, develop a collective morality, and maintain a harmonious relationship with their leaders. Therefore, educators should adopt a humble and inclusive attitude, striving to create an environment full of understanding and tolerance. Through this approach, we can build a healthy and harmonious teacher-student relationship. [25]

6. Conclusions

This paper outlines the influential elements of NSSI that are primarily related to interpersonal relationships and shows that maintaining healthy interpersonal relationships can help significantly reduce the risk of self-harm. In today's world of increasingly sophisticated social networks, adolescents' interpersonal relationships are more diverse and complex. In contrast, unhealthy interpersonal interactions may have many negative effects on adolescents, leading them to develop thoughts of self-harm. Their tendency to self-harm is an urgent issue that needs to be addressed at present. In addition, this article also gives educational suggestions for preventing adolescents' NSSI behaviors from multiple perspectives, and future research could delve into the preventive measures and effects of improving interpersonal relationships on adolescents' NSSI behaviors, as well as how to provide adolescents with comprehensive and systematic preventive measures to reduce the risk of self-injury among adolescents. is characterized by a high prevalence and difficulty in prevention and treatment. The importance of relationships in adolescent development cannot be overstated. This paper outlines the influential elements of NSSI that are primarily related to interpersonal relationships and shows that maintaining healthy interpersonal relationships can help significantly reduce the risk of self-injury. In today's world of increasingly sophisticated social networks, adolescents' interpersonal relationships are more diverse and

complex. In contrast, unhealthy interpersonal interactions may have many negative effects on adolescents, leading them to develop thoughts of self-harm. Their tendency to NSSI is an urgent issue that needs to be addressed at present. In addition, this article also gives educational suggestions for preventing adolescents' NSSI behaviors from multiple perspectives, and future research could delve into the preventive measures and effects of improving interpersonal relationships on adolescents' NSSI behaviors, as well as how to provide adolescents with comprehensive and systematic preventive measures to reduce the risk of self-injury among adolescents.

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