The relationship between social exclusion and adolescent aggressive behavior: The moderating role of psychological resilience

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Abstract: This study aims to explore the relationship between social exclusion and adolescent aggressive behavior and to examine whether resilience plays a moderating role in this relationship. The research method adopts a questionnaire survey method, using the Youth Resilience Scale, the Ostracism Experience Scale for Adults (OES-A), and the Children's Social Behavior Scale. A random sample of 240 junior and senior high school students was used to measure their social exclusion experience, aggressive behavior, and resilience. The results show that: (1) social exclusion, aggressive behavior, and resilience are positively correlated; (2) resilience is negatively correlated with aggressive behavior; (3) resilience plays a moderating role in the relationship between social exclusion and adolescent aggressive behavior. This study reveals the impact of social exclusion on adolescent mental health and behavioral development, and proposes that resilience plays a key role as a protective factor, which provides important significance for future intervention and prevention of adolescent aggressive behavior.

1. Introduction

Aggressive behavior, that is, a behavior that attempts to harm other lives physically or psychologically, is a type of behavior that is the opposite of prosocial behavior [1]. Other opposite behaviors of prosocial behavior include bullying, criminal behavior, lying, apathy, etc. With the transformation of China's society, the social environment is out of order, the media is improperly promoted, the network supervision is out of control, the family structure is changing, and the subject of adolescent socialization is missing [2], resulting in frequent aggressive behavior among adolescents, verbal violence, physical bullying, cyber violence and other problems.

Due to the prevalence of adolescent aggressive behavior, many countries have previously paid attention to it and taken preventive measures. For example, the Social Emotional Learning (SEL) project [3] was gradually introduced into the American school system; Canada implemented the "Roots and Wings" program Roots of Empathy [4] to cultivate adolescent empathy; Japan promulgated the "Anti-Bullying Basic Law" [5], requiring schools to establish a basic mechanism to prevent and respond to bullying; the United Kingdom established the "Anti-Bullying Alliance" [6], which is a collaboration between multiple charities and educational institutions; Australia established the "National Anti-Bullying Day" [7] to enhance the public's anti-bullying awareness, etc. In recent

years, the spread of violent videos and news on the Internet, the indifference of students' mental health in schools, the increase in peer pressure and competitive relationships, and the "stuffing" education method of parents have led to the gradual decline of aggressive behavior at a young age, becoming a potential factor in triggering adolescent aggressive behavior, causing adolescent aggressive behavior to rise [8]. Aggression is an important indicator for measuring individual social adaptation and has long attracted the attention of researchers [9]. Surveys show that adolescent violence has become the third leading cause of death for individuals aged 10 to 24, and causes more than $21 billion in medical losses each year (National Center for Injury Prevention and Control (US). Division of Violence Prevention, 2019). In China, the number of juvenile violent crimes has rebounded in the past five years, and is showing a trend of younger age [12], threatening campus and social security [10]. Adler, an Austrian psychiatrist and student of Freud, believed that the internal motivation of aggressive behavior mainly comes from people's own motivation to "pursue superiority" rather than "instinct". He paid attention to the role of social factors and attached importance to the realization of the will to power. He believed that all human behavior must be dominated by the "will to power" and pursue conquest and superiority. If this driving force is frustrated, it will stimulate people's enthusiasm and make them strive to succeed, but it may also lead to hostility towards society and others and thus aggressive behavior [13]. Dollard and other social psychologists at Yale University in the United States developed this theory on this basis. They believe that the occurrence of aggressive behavior always takes frustration as the basic condition, and under certain conditions, it may lead to some form of aggressive behavior [11]. Nowadays, adolescent aggressive behavior is still a major problem that cannot be ignored in society [14]. Therefore, only by re-examining the influencing factors and development process of this problem, reflecting on and condensing the possibility theory that matches the development of the times, can we find feasible methods to prevent and improve adolescent aggressive behavior.

In addition to some basic influences of environment, behavior, and genes, some studies have explored in-depth detailed factors such as materialistic values, moral evasion, self-control resources, etc [15]. However, "social exclusion" is an important inducement that is easily overlooked. Social exclusion refers to the state or process in which an individual or group is excluded from social resources and opportunities, usually manifesting as a lack of interpersonal relationships, a lack of resources and opportunities, and marginalization of identity [16]. According to the frustration-aggression theory, frustration situations will hinder the process of individuals pursuing their goals, thereby increasing the risk of aggressive behavior [17]. Social exclusion is a typical frustration situation that hinders individuals from obtaining resources and opportunities, causing them to lose a sense of belonging, and also has a negative impact on cognition and emotion [18]. On the one hand, people who have been socially excluded for a long time are more likely to lack a sense of belonging and identity, accompanied by loneliness, low self-esteem, anxiety and depression, which may drive individuals to externalize problems and vent their inner desire for expression or resistance to social exclusion through an increase in potential or direct aggressive behavior [19]. On the other hand, when individuals feel socially excluded or marginalized, they will stimulate their own self-defense mechanisms and use aggressive behavior to resist further psychological or social harm [20]. Among many factors, social exclusion is considered to be an important risk factor for adolescent aggressive violence [21], and a large number of studies have explored the relationship between the two [22]. Although the results of the studies vary, it can still be concluded that social exclusion and aggressive behavior are positively correlated.

Resilience refers to an individual's ability to cope with situations such as adversity, trauma or stress in life [23]. Adolescent psychological development is influenced by both the external environment and internal traits [24]. The formation of resilience is closely related to factors such as early development experience, family education style, and social support of adolescents [25], and is one of

the major factors affecting the internal nature of adolescents. Some studies have pointed out that the moderating role of resilience in the relationship between bullying and children's well-being has not been verified, which is attributed to the fact that the development of resilience in primary school children is not yet perfect and is not enough to help children buffer against negative social influences [26]. As people grow older, they continue to accumulate frustration and cope with problems in the process of growing up [27]. When faced with problems, adults generally have a more stable state of mind and a rational way of dealing with them, which is regarded as the continuous enhancement of resilience. This study focuses on adolescents whose minds have just matured and basically remained stable as the research subject to explore the moderating role of adolescent resilience. At present, there are many different opinions on the meaning of psychological resilience in the research[28], among which the result is nature theory is one of the more mainstream schools. Scholars of this school believe that psychological resilience is the ability of individuals to adjust themselves to show positive behaviors or reduce negative actions when facing negative situations. Studies have shown that negative emotions can be alleviated by some factors, and psychological resilience, as a significant individual difference variable, can buffer potential negative effects. In addition, the level of psychological resilience in adolescents may affect social exclusion, thereby affecting their aggressive behavior.

Psychological resilience can be seen as a buffer zone for adolescents to respond to setbacks. According to the famous "Kick the Cat Effect", due to the bullying characteristics of resilience, when a person receives pressure, frustration or negative emotions from superiors or the outside world, he or she will transfer these emotions to individuals of lower status or more vulnerable (American Psychology Association, 2020). Compared with high-level emotions such as shame, guilt, and sympathy, aggressive behavior, a primitive non-learned behavior hidden in adolescents, will be stimulated from the subconscious, using primitive instincts as a way of self-protection, becoming a kind of emotional displacement[21]. This explains the phenomenon that some adolescents, when facing external pressure and frustration, vent their emotions on their peers or vulnerable individuals through barbaric aggressive behaviors at a lower evolutionary level. Psychological resilience can effectively help adolescents manage stress and frustration, and help adolescents choose the most appropriate coping strategies among the diversified ones, such as communication, seeking external support, etc., thereby weakening adolescents' reactive aggressive behaviors and increasing rational coping measures. It is generally believed that adolescents with strong psychological resilience have more qualities to grow in adversity [19].

Unlike violence and bullying, even if social exclusion is observed, it is difficult to prevent and control its development[15]. Psychological resilience gives adolescents better emotional regulation ability, increases their emotional sensitivity threshold, and improves their orientation to social exclusion. People with high psychological resilience have the characteristics of high self-esteem and high self-efficacy, and are not easily self-doubtful because of the outside world, thereby buffering the impact of social exclusion[20]. At the same time, social exclusion is one of the factors that affect psychological resilience. Due to the lack of social support, individuals find it difficult to obtain actual emotional values and social resources, which leads to increased psychological pressure and weakens their ability to cope with challenges and psychological resilience. Social exclusion has a long-term nature. In the face of long-term and repeated social exclusion, if individuals do not take reasonable coping measures, even for people with high psychological resilience, their psychological defenses will be broken, causing problems to be internalized or externalized. Psychological resilience helps maintain adolescents' psychological balance by facing various social setbacks and difficulties through rational coping measures, and plays a regulatory role between social exclusion and aggressive behavior [16]. Adolescents who have experienced major setbacks and are able to accept positive guidance will have better psychological resilience in the future.

In summary, this study uses psychological resilience as a moderating variable and proposes the following research hypotheses: social exclusion , aggressive behavior, and psychological resilience are all positively correlated (H1); psychological resilience is positively correlated with social exclusion (H2); psychological resilience is negatively correlated with aggressive behavior (H3); and psychological resilience plays a moderating role in the effect of social exclusion on adolescent aggressive behavior (H4).

2. Research Methods

2.1 Subjects

The research subjects were adolescents aged 11-22. Samples were collected from various places, such as Beijing, Shanghai, Jiangsu, Zhejiang, etc., including a small number of samples from the United States, by distributing questionnaires online. 240 adolescents were selected as research subjects, 240 questionnaires were distributed, and a total of 191 valid questionnaires were obtained, with an effective recovery rate of. Among them, there were 70 boys and 134 girls, 67 junior high school and below subjects, and 137 high school subjects, with an average age of 15.71 years old (SD=2.22).

2.2 Research Tools

2.2.1 Adolescent Resilience Scale

The adolescent psychological resilience scale developed by Hu Yueqin and Gan Yiqun (2008) from the Department of Psychology of Peking University was used. Through interviews, the classified interview information was itemized, that is, the core meaning of the interviewees' answers was extracted, the sentences were complete, written, and concise, and similar items were merged. The adolescent psychological resilience scale determined in the initial test consists of 27 questions, including five dimensions: goal focus, interpersonal assistance, family support, emotional control, and positive cognition. The original scale uses a 5-point evaluation and is divided into 5 factors. The 5 factors are named according to their meaning, and the internal consistency coefficient of each factor is calculated: F1- goal focus, refers to sticking to goals, making plans, and concentrating on solving problems in difficult situations, $\alpha = 0.81$; F2- interpersonal assistance, refers to the ability of individuals to obtain help or vent emotions through meaningful interpersonal relationships, $\alpha = 0.73$; F3- family support, refers to the tolerance, respect, and supportive attitude of family members, $\alpha = 0.81$, F4- emotional control, refers to the control and adjustment of emotional fluctuations and pessimism in difficult situations, $\alpha = 0.74$; F5- positive cognition, refers to the dialectical view and optimistic attitude towards adversity, $\alpha = 0.71$. The five dimensions reflect the effectiveness of adolescents' cognition, emotions, behaviors, and the environment they live in in helping them resist adversity and achieve good adaptation in adversity situations. This study adopted a holistic evaluation method, and the overall scale $\alpha = 0.94$.

2.2.2 Chinese version of OES-A exploratory factor scale

The Ostracism Experience Scale for Adolescents (OES-A) was revised by Zhang Denghao, Huang Lianqiong, and Dong Yan from the Department of Psychology at Renmin University of China. The original scale was developed by Gilman et al. based on the phenomenon of adolescent social exclusion and specifically for adolescents, including two dimensions: neglect and rejection.

Scale was translated into Chinese by a master's student, and then back-translated by another doctoral student in the English department, a doctoral student in the psychology department, and a

psychology expert. After many discussions, the Chinese version of OES-A was determined. This scale has been widely used abroad and has been proven to have good reliability and validity [10]. When Gilman et al. compiled the English version of OES-A, they used the term Ostracism, which includes two specific dimensions: Ignored and Excluded, but they used socially rejected and Socially neglected respectively when constructing these two dimensions. Therefore, in order to facilitate understanding and be consistent with the accustomed usage of domestic researchers, we translated Ostracism into social exclusion, and the two small dimensions into neglect and rejection respectively. Referring to the naming of Gilman et al., factor one is named neglect, factor two is named rejection, and all items of factor two need to be reverse scored. The α of this scale in this study is 0.88.

2.2.3 Children's Social Behavior Scale

By Crick (1996). The final questionnaire contained 6 questions to measure adolescents' self-reported relational aggression, such as "I will deliberately spread rumors about certain people". The questionnaire uses a 5-point scoring system, with 1 representing never and 5 representing always. The average score of the items is calculated, and the higher the score, the higher the level of relational aggression. Studies have shown that the questionnaire has good reliability and validity in Chinese adolescent samples [17]. The α of this scale in this study is 0.77.

2.3 Research Procedure and Data Processing

The main test was conducted by a graduate student of psychology who had undergone rigorous training in advance. The group test was conducted in the class of the subjects. The three questionnaires were unified into a 5-point scoring format, and all data were entered and processed and analyzed on SPSS 27.0. The average values of the three variables - social exclusion, psychological resilience, and aggressive behavior were calculated respectively. The average values of the three parts of aggressive behavior - relational aggression, explicit aggression, and prosocial behavior were also calculated, and the calculated average values were used for data analysis.

3. Study Results

The descriptive statistics and correlation analysis results of the variables are shown in Table 1.

Table 1: Descriptive statistics and correlation analysis of variables

VARIABLE	M ±S D	1	2
1. SOCIAL EXCLUSION	2.63 ±0.77		
2. MENTAL TOUGHNESS	3.41 ±0.72	-0.62**	
3. AGGRESSIVE BEHAVIOR	1 .85 ±0 .61	0.29**	-0.38**

Table 2: Average scores of social rejection, psychological resilience, and aggressive behavior for males and females

GENDER		AVERAGE SCORE	AVERAGE SCORE	AVERAGE SCORE
MALE	Mean	2.5902	3.4775	1.8718
	N	65	65	65
	Std.Deviation	0.72623	0.70908	0.60142
FEMALE	Mean	2.6576	3.3778	1.8430
	N	124	124	124
	Std.Deviation	0.78923	0.73057	0.61890
TOTAL	Mean	2.6344	3.4121	1.8529
	N	189	189	189
	Std.Deviation	0.76687	0.72292	0.61149

First, the correlation between psychological resilience and social exclusion was tested, and it was negatively correlated (r = -0.62); secondly, the correlation between aggressive behavior and social exclusion was tested, and it was positively correlated (r = 0.29). The average social exclusion score for men was 2.59, and the aggressive behavior score was 1.87; the average social exclusion score for women was 2.66, and the aggressive behavior score was 1.84. (See Table 2)

The bias-corrected percentile Bootstrap method was used to test the moderating effect of psychological resilience using SPSS compiled by Hayes (PROCESS is written by Andrew F. Hayes, http://www.afhayes.com). The results are shown in Figure 2.

For adolescents with low psychological resilience, aggressive behavior is high regardless of the level of social exclusion; for adolescents with high psychological resilience, aggressive behavior is low when social exclusion is low and high when social exclusion is high ($\beta = 0.47$, $p < 0.01$). This indicates that psychological resilience plays a moderating role in the effect of social exclusion on aggressive behavior. (see Figure 1)
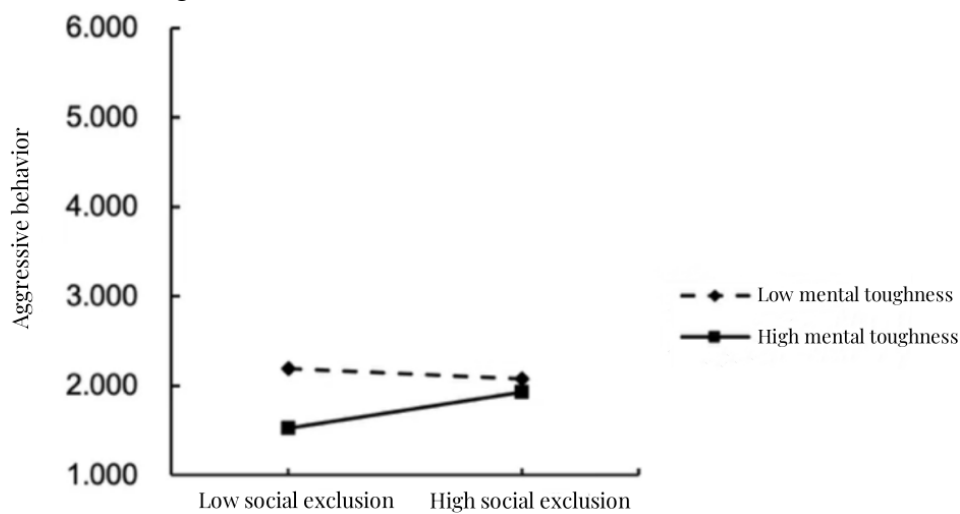
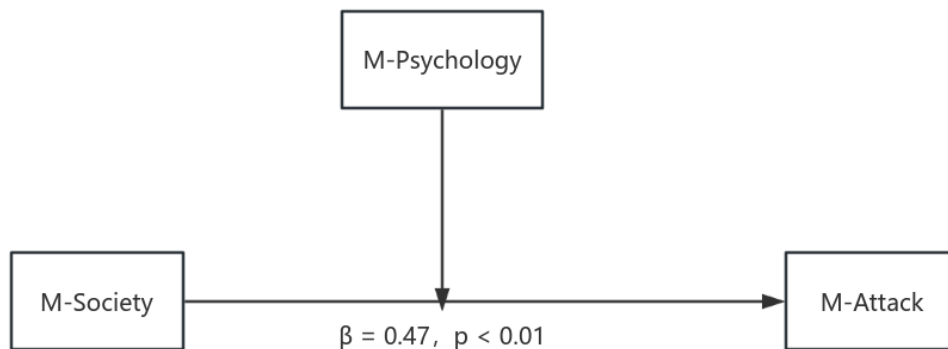Figure 1: The impact of social exclusion on aggressive behavior

Figure 2: The role of psychological resilience in the impact of social exclusion on aggressive behavior

4. Discussion

4.1 The regulatory role of psychological resilience

This study found that social exclusion, aggressive behavior, and resilience were all positively correlated. In addition, the moderating effect of resilience on the impact of social exclusion on

aggressive behavior has a significant impact on adolescents with high resilience. That is to say, in higher social exclusion, the aggressive behavior of adolescents with high resilience is more susceptible to emotional loss of control, damaged self-esteem, or psychological factors that seek a sense of control, but at the same time, in lower social exclusion, they can effectively regulate emotions, understand negative experiences, and adopt constructive coping strategies instead of relieving stress or retaliating through aggressive behavior. This proves that social exclusion and resilience are positively correlated [17]. For those with low resilience, adolescents often find it difficult to effectively manage their emotions when facing any degree of social exclusion, lack adaptive coping strategies, and are prone to developing aggressive behavior. For such adolescents, the negative emotions brought about by social exclusion may be rapidly amplified, ultimately leading to more serious behavioral problems. At the same time, in the context of low resilience, the possibility of social exclusion leading to aggressive behavior is not significant. Therefore, with psychological resilience as the independent variable and social exclusion as the dependent variable, the research results show that social exclusion , aggressive behavior and psychological resilience are positively correlated, regardless of whether the adolescents have high or low psychological resilience , and hypothesis 1 (H1) is confirmed.

Resilience plays an important role in adolescents' social exclusion situations, making different individuals show great differences when facing similar negative social experiences [22]. In real life, there are obvious differences in the forms and proportions of social exclusion situations experienced by adolescents. High social exclusion situations, such as school bullying, collective exclusion, labeling and stigmatization, are highly public and persistent, and have a great impact on the mental health of adolescents with high or low psychological resilience [24]. A comprehensive study shows that high social exclusion situations are relatively rare, but they occur more frequently in certain specific populations [23]. In campus life, about 20%-30% of students may have experienced some form of bullying [12]. The incidence of high exclusion situations for LGBTQ or ethnic minorities is relatively high [24]. Low social exclusion includes slight neglect, social indifference, or failure to integrate into certain groups, which is sporadic and non-persistent. It may not have a significant negative impact on adolescents, but it may also cause emotional distress to adolescents to a certain extent. Low social exclusion situations are more common among adolescents. It is estimated that 70%-90% of adolescents may experience some form of low-intensity social exclusion in their daily lives [26], as shown in Table 3.

Table 3: Four common aspects of social exclusion

ASPECT	HIGH SOCIAL EXCLUSION	LOW SOCIAL EXCLUSION
STRENGTH	Intense, overt, and repeated ostracism	Mild, sporadic, non-persistent rejection
FORM	Bullying, humiliation, public isolation, labeling	Neglect, slight exclusivity, brief social snubs
PSYCHOLOGICAL IMPACT	Strong negative emotions, anxiety, depression, and aggressive behavior may increase	Mild discomfort, brief mood swings, usually without serious consequences
FREQUENCY OF OCCURRENCE	Relatively rare, affecting approximately 20%-30% of adolescents	It is more common and affects most adolescents

It can be seen that low social exclusion tends to have a greater impact on adolescents' lives, and as psychological resilience improves, adolescents' aggressive behavior is greatly reduced. The general trend of the social environment is still consistent with the predictions of Hypothesis 2 (H 2) and Hypothesis 3 (H 3) .

4.2 Significance of regulatory effects

The research shows that adolescents' psychological resilience plays a buffering role in low social exclusion, but loses its obvious effect in high social exclusion. This study attributes this phenomenon to the adaptive development of psychological resilience.

White et al. examined the relationship between theory of mind and social exclusion from the perspective of mentalization and found that after being excluded, the mentalization ability of ordinary children will improve, and they will use more mental state language to communicate with others more effectively and try to re-establish social connections [20]. Adolescents usually need to go through an adaptive process to cope with social exclusion [18]. In the social exclusion encountered during growth, adolescents' self-esteem, sense of worthiness, and self-efficacy continue to improve, thereby promoting the development of psychological resilience, so that it can play an appropriate regulatory role within the controllable social exclusion encountered by adolescents [15]. Therefore, when social exclusion is at a low level, adolescent psychological resilience can help them better cope with stress and challenges. However, in high-intensity, frequent, and long-term social exclusion situations, adolescent individuals need to withstand overwhelming pressure. This creates a continuous psychological demand threat for adolescents whose problem-solving ability and personality have not yet fully developed, which is beyond the scope of psychological resilience.

Baumeister et al. have conducted a lot of research on social exclusion. Although they have not proposed a mature theoretical model, they have their own unique viewpoints - emotional numbness theory and self-control failure theory [12]. Here we define social exclusion situations that can cause adolescents to be in a state of numbness as high social exclusion. Baumeister et al. believe that high social exclusion causes individuals to be in a state of numbness, including emotional numbness and physical numbness. The excluded are in a state of emotional numbness, and the emotional system seems to be shut down. This defensive reaction temporarily reduces the pain of the individual, so that they are able to cope with the exclusion event, just as animals release opioids when they are hurt to temporarily reduce pain in order to effectively cope with threatening events. However, emotional numbness also makes it difficult for individuals to make accurate assessments of emotional events, resulting in various maladaptive behaviors.

Self-control can be regarded as a specific manifestation of psychological resilience. For example, when a person faces setbacks, self-control can prompt them to suppress negative emotions or impulsive behaviors, thereby maintaining psychological stability. Studies have shown that social exclusion undermines self-control, and at the same time found that the excluded are unwilling rather than unable to exert self-control. Under the condition of providing monetary incentives or improving self-awareness, the excluded can also exercise effective self-control [8]. In this regard, researchers believe that there is an agreement between people and society. Individuals use self-control to restrain some selfish desires to gain social acceptance and survive better. If self-control fails, individuals may be socially excluded. Accordingly, social exclusion also makes individuals unwilling to exercise self-control [10]. Adolescents have not yet entered society, and their driving force is only satisfied with making psychological resilience play a regulatory role in low social exclusion. Due to the lack of a strong desire for money and clear self-awareness goals, adolescents cannot obtain enough motivation to exercise self-control to actively resolve social exclusion in the context of high social exclusion. Failure of self-control can lead to increased aggressive behavior [15]. Therefore, it is difficult for psychological resilience to withstand the impact of high social rejection during adolescence. Self-control usually improves with age, especially in childhood, adolescence, and early adulthood, as cognitive and emotional development gradually increases. People with high self-control tend to have strong psychological resilience because they can control impulses [20], not be defeated by short-term setbacks, and stick to their goals. It is speculated that psychological resilience can only resist high

social rejection after it can be maintained and developed to a certain age.

When adolescents face social exclusion, the occurrence of aggressive behavior is closely related to the individual's psychological characteristics [17]. Studying how psychological resilience regulates the impact of social exclusion on adolescent aggressive behavior can help us understand the causes and mechanisms of adolescent aggressive behavior, as well as explore constructive coping methods for different degrees of social exclusion, and provide theoretical basis and practical guidance for the prevention of adolescent behavioral problems. In addition to reducing the direct occurrence of social exclusion, cultivating adolescent psychological resilience is also an important way to reduce aggressive behavior. At the same time, paying attention to the risk effects of low psychological resilience can help identify high-risk groups among adolescents who are vulnerable to harm. The adolescent stage is a critical period for social adaptation. Social exclusion is more likely to have a long-term negative impact on the psychological status quo and later development of adolescents, resulting in problems such as low self-esteem, lack of self-confidence, and social avoidance [18]. Using appropriate methods to cultivate adolescent psychological resilience can enable adolescents to better cope with these challenges and adapt to social life. The study of psychological resilience can provide an important reference for adolescent social adaptability.

There is a complex relationship between emotions and behaviors. As an important variable of emotion regulation, psychological resilience may affect adolescent behavioral responses through multiple factors such as emotion regulation, self-cognition, and social support [21]. Systematically studying this regulatory role provides support for the theoretical model of the complex relationship between emotions and behaviors. According to the results of this study, it is speculated that the role of this regulatory factor may be related to the third level of Maslow's Hierarchy of Needs, "Social Needs" (Love and Belonging Needs). When the sense of security is satisfied, individuals will begin to pursue a sense of belonging and emotional connections with interpersonal relationships and establish social networks, including friendship, intimacy, family, and community belonging [3], which also confirms the initial cause of "social exclusion". As people meet higher levels of needs, psychological resilience will increase, and people will pay more attention to their own growth and creativity. Individuals pursue the realization of their full potential and regard self-actualization as the ultimate goal of human "psychological development". According to this study, "psychological development" here can be interpreted as "psychological resilience development."

With the popularity of social media, adolescents are facing increasing social pressure and cyberbullying is becoming more serious [15]. Verbal violence, rumor spreading, insulting words, etc. are rapidly spread on a large scale through the Internet, leading to an increase in emotional problems and aggressive behavior problems among adolescents [16]. In this context, the regulatory role of adolescent psychological resilience deserves further exploration to cope with new challenges. By creating a supportive, inclusive and positive campus environment, combined with effective educational strategies, schools can help adolescents better cope with challenges and enhance psychological resilience. In short, research on psychological resilience has important social and practical significance. In the complex contemporary social environment, understanding the role of psychological resilience is crucial to adolescent development and health.

4.3 Research Deficiencies and Prospects

First, although this study analyzed the moderating effect of resilience on social exclusion and aggressive behavior based on a questionnaire survey of the current social situation, it adopted a cross-sectional design, lacking time continuity in measuring the impact of social exclusion on aggressive behavior, and lacking time sequence in measuring each variable. In view of this, future studies will consider using longitudinal tracking research methods to capture the long-term dynamic relationship

between the three variables of resilience, social exclusion and aggressive behavior. Secondly, this study only focused on the role of resilience in the impact of social exclusion on adolescent aggressive behavior, and other factors that may affect social exclusion on adolescent aggressive behavior were not involved, such as gender, family of origin, moral evasion, etc., and there is still a need for a more in-depth analysis of new independent variables and dependent variables. Finally, the subject groups are mostly concentrated in China, and there is a lack of cross-cultural/cross-group comparative studies. The manifestations of social exclusion by adolescents from different cultural backgrounds may be different. Research on cross-cultural adolescents will provide more effective evidence for our understanding of the impact of resilience on social exclusion and aggressive behavior. And due to the inconsistency of the three questionnaires and the deletion of repeated questions, there may be some deviations. Future research will consider verifying the universality of this regulatory mechanism in more diverse samples and adopting more diverse data collection forms such as interviews, which will not only deepen the understanding of adolescent psychological resilience, but also provide more effective intervention approaches for preventing and reducing adolescent aggressive behavior.

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