

Peer Relations, Mental Health and Social Anxiety in Middle and High Schoolers

Mingyu Guan

*Beijing Wangfu School, Beijing, China
guanmingyu226@outlook.com*

Abstract. Over the past few years mental health problems in middle school and high school students have gained increased attention from both the academic community, teachers, and the public. Adolescents are at an age of change when they are more concerned about approval from peers and acceptance from the group. As their social attention shifts more towards peers, peer interaction becomes an important source of emotional support, social belonging and interpersonal feedback. Peer relationships can be a source of social pressure and have a detrimental impact on students' mental health, while positive peer relationships can reduce social pressures and contribute to psychological well-being. The method of this research is literature review which is used to sort out the results of existing studies in China and abroad to uncover the inherent correlations among peer interaction, social anxiety and mental conditions. The findings show that healthy peer relationships reduce adolescents' social anxiety, and promote their psychological health, while peer problems typically exacerbate anxiety symptoms and negatively impact on children's psychological state. The obtained conclusions can provide the theoretical foundations for the implementation of mental health education and peer interaction counseling for adolescent groups.

Keywords: Peer Relations, Mental Health, Social Anxiety

1. Introduction

1.1. Background

Adolescent years is a critical period for the development of self-perceptions and developing interpersonal skills. As children enter secondary school, they become more independent and rely less on their families; the school environment becomes their main living environment. Peer communications thus play a central role in their overall social communication networks. Daily interpersonal interactions can not only affect the emotional state and behavioral tendencies of teenagers, but can also have long-term effects on individual personality shaping and psychological well-being.

Social anxiety (SA) and psychological maladjustment among teenage groups have been consistently upsetting the educational administrators and common public for the past several decades. Previous empirical studies have confirmed that there is a close relationship between the kind of peer interaction and affective experience and mental functioning; good peer rapport reduces

interpersonal stress and maintains good mental functioning, while poor, conflicting interpersonal situations can increase anxious symptoms and lead to negative consequences for mental functioning.

A literature search of the current academic literature indicates that most available studies have been conducted on peer interactions either in isolation with SA, or in isolation with mental wellbeing, and only a few studies conducted an in-depth analysis using all three research variables. Empirical studies specifically focusing on the middle and high school level are still quite limited. To fill this research gap, the present study focuses on junior and senior high school students and investigates the effect of peer connection conditions on the level of SA in adolescents and their mental functioning in order to provide theoretical bases and practical reference materials that can be applied in psychological interventions and guidance for adolescents.

Adolescence is a pivotal stage in the process of human development, and peer relationship is an important factor in the transition of socialization and has an irreplaceable role, which directly affects the adaptability to the environment, emotional regulation and personality development of students. Middle and high school students are at a pubertal age, going through rapid changes in all aspects of both body and mind, some emotional changes in behavior and are especially worried about social status in their peer group.

1.2. Research significance

From a practical point, this study can systematically uncover the mechanisms behind peer relationship on SA and mental health (MH) of junior and senior high school students. The findings in it offer multi-dimensional practical guidance for schools, families and educators. For campus environments, research findings can provide a foundation for empirical evidence that can be used to guide schools to maximize the use of students in MH education curricula and to provide individual interpersonal guidance and social skills training. This helps teachers to identify signs of risk easily in peer relationships, intervene at the right time, solve underlying issues such as peer rejection and interpersonal conflict and guide adolescents into learning healthy and positive peer communication.

On the family education level, the research is also beneficial for parents to know the important role of peer relationship in the psychological development of adolescents, and improve the understanding and awareness of children's social status and communication. This encourages partnership in intervention from home and school, establishing a safe and nurturing environment for junior and senior high school students to grow. The findings of the study can be effectively used to alleviate the students' SA through early identification and scientific intervention to reduce adverse mental outcomes like inferiority complex, emotional oversensitivity and social withdrawal due to poor peer connections and reduce the risk of further deterioration of mental health issues. Finally, it nurtures the emotional regulation, social adaptation and healthy development of personality of junior and senior high school pupils for their physical and mental well-being.

1.3. Research objectives

This study aims to primarily have three dimensions. Firstly, the core concepts of peer relationships, SA, MH are systematically defined and the connotations and characteristics are clarified and the intrinsic relationship and mechanism between these variables are illustrated. This sets the ground rules for further analysis and discussion and it also gives conceptually-based benchmarks for educators, parents and adolescents as references to help them avoid cognitive biases that may hinder the application of the concept in practice. Second, it investigates, through empirical analysis, the

pathways of peer relations and their effects on adolescents' SA and MH, and the differential effects of different kinds of peer relations (e.g., supportive, conflictual) on adolescents' emotional states and psychological development. This provides a more holistic understanding of the development of SA and MH problems in adolescents, and the mediating and moderating mechanisms between these variables. Third, it suggests intervention strategies and improvement suggestions from a theoretical review and empirical analysis. They are action-oriented practical references for the maintenance and promotion of MH of the junior and senior high school students and also give concrete guidance to the teachers and parents. In this way, MH issues and social impairments in adolescents can be prevented and reduced, and a safer and more supportive growth environment can be created, which will help adolescents grow physically and mentally.

2. Key concepts

2.1. Peer relationships

It is a significant period of the growth process for middle and high school students, and their peer relationships formed and developed with each other are an integral part in the growth track, impacting their social adaptability and emotional control. Peer relationships have been defined as "social interactions, interpersonal emotional connections and behavioral exchanges between individuals and peers" [1]. This kind of social interaction is developed over time between middle and high school students within a social context with their peers and at various levels including emotional support, group acceptance and daily interaction. This definition offers a well-defined theoretical context in considering the effects of peer relationships on the SA and MH of middle and high school students.

2.2. SA

SA is a negative emotional state characterized by chronic tension, fear, self doubt, and even social avoidance, that people feel in social situations that are easily subject to the scrutiny of others, for instance, interpersonal communication, public performance and group interaction. SA is not just a short-term social tension, but also displays features of stability, self reinforcement and generalization. People experiencing SA (even if they know that their fear is not rational) struggle to reduce it themselves. They also typically try to find an escape from anxious thoughts by remaining socially isolated, which consequently perpetuates more avoidance behaviors and leads to more intense and troubling anxiety symptoms. Among middle and high school students, the characteristics of SA manifested in the following aspects: firstly, in the face of others' comments, the students were extremely sensitive and worried about receiving negative evaluations; secondly, the students were afraid of losing it in front of others, and intentionally avoided meeting with unfamiliar people; thirdly, in the classroom speaking and group cooperation activities, students were afraid of being in the spotlight and did not actively participate in the class. These behaviors directly impact students' classroom participation and engagement in learning and negatively influence students' academic development and adaptation on campus.

Peer relationship status of middle and high school students and its correlation with SA was found to be highly correlated: positive and supportive peer relationships are an effective way to alleviate SA, and even to "mitigate the disabling impacts" stemming from persistent SA symptoms [2, 3]. Conversely, students who are the victim of peer exclusion and isolation will see their SA symptoms to be much more exacerbated. There is a two-way link between the two: severe SA may lead to

social avoidance behavior in adolescents, which, in turn, may worsen their social relationships with peers and create a vicious circle. From these research findings, it is recommended that campus educators pay attention to guiding students to establish a healthy relationship between peers, learn some inter-personal coping skills that they can use in practice, reduce the social unease, and establish a healthy interpersonal communication pattern.

2.3. Psychological health

Positive peer relations have a crucial protective role in reducing SA and maintaining MH in middle and high school students. Positive, harmonious and supportive peer relationships provide adolescents with emotional support, social validation and stress buffers and fulfill various protective roles and promote healthy personality and psychological functioning. Sun reported that constructive peer relationships can help reduce the level of SA, whereas the maladaptive peer relationship can increase the level of anxiety and even cause depressive symptoms [4]. These positive interpersonal interactions have a basic effect of reducing the risk of SA and of reducing the psychological distress that may be the result of any negative affect that may have built up within a person. Shao et al. also confirmed that positive peer relationships promote adolescents' self-awareness and psychological resilience, reduce negative emotions and interpersonal relationships [5]. Adolescents are emotionally supported and psychologically comforted in safe and supportive peer settings, leading to increases in self-confidence, positive affect and psychological well-being.

Instead, dysfunctional peer relationships have profound negative effects on adolescent development. From minor arguments to interpersonal estrangement, to serious conflict and even outright social rejection, detrimental peer exchanges have varied and heterogeneous effects on the students' psychological state, social cognition and the development of their social personality. A meta-analytic study by Chiu et al. demonstrated a prospective relationship between low peer status and SA, and that dysfunctional peer dynamics are not only important precipitating factors for SA but can also be a progressive increase in anxious symptoms over time, which can lead to the entrenchment of persistent social fear and self-doubt in adolescents [3].

Students who get stuck in these negative relational states learn to have negative emotional habits of feeling inferior, being extra sensitive in relationships and suppressing their emotions. As the SA increases, so does their ability to regulate their emotions. These adolescents experience skills in interpersonal communication to decline and they also experience persistent low mood and intrusive negative cognitions, in some extreme cases clinical depression or other psychological disorders may emerge, significantly affecting their overall MH and influencing their overall physical and psychological development.

3. Effects of peer relationships on SA and MH – specific impact

The constructive peer connections have a significant beneficial effect on the MH and personality cultivation of adolescents. Positive peer relationships that are friendly and supportive provide multiple protective factors in teens' psychological development. Sun explored the mechanisms by which adolescent peer relationships affect SA and pathways to intervention, and found that positive peer relationships buffer against anxiety and help maintain MH, while negative relationships increase the risk of anxiety and pathway into depressive pathology [4]. Positive relationships among peers naturally reduce the susceptibility of SA, reduce psychological distress and counteract the long-term and cumulative effects of negative emotion.

Peer relationships have positive effects on SA and MH, which helps develop healthy personalities and adaptive psychological functioning among adolescents. Amicable, mutually supportive peer interactions have multi-faceted protective effects on the psychological maturation of youths. Sun discussed the role of peer relationships in middle and high school students in predicting SA and related intervention strategies, confirming that positive peer connections can help reduce the risk of SA and maintain mental health, while negative peer interactions can increase the vulnerability to anxiety and lead to depression and other psychological issues [4]. Positive peer connections naturally reduce the risk of developing SA, alleviate psychological distress and diminish chronic negative consequences of long-term negative affect accumulation.

Shao et al. also confirmed that quality peer relationships can help to enhance adolescents' self-identity and psychological resiliency and alleviate negative affect and interpersonal strain [5]. It is important for children to have positive peer relationships as this can help minimize the likelihood of emotional distress and depressive symptoms. In a safe peer setting, adolescents receive emotional support and psychological comfort, leading to strong self-confidence, positive dispositional characteristics and stable emotional and physical functioning.

In contrast, difficult peer relationships have a variety of negative effects on adolescents' psychological functioning. Peer conflict across a spectrum of trivial disagreements, interpersonal disaffirmation to total rejection affects students' psychological state and social adjustment to varying degrees along with the molding of personality and development of self-awareness. Chiu et al. performed a meta-analytic study that found there was a prospective relationship between low peer standing and SA, with poor peer functioning being a key precipitant of SA and a contributor to worsening symptoms over time. Persistent negative peer relationships can also continue to worsen the symptoms of anxiety in middle and high school students and persist and become chronic social fears and self doubts [3].

Adolescents exposed to negative peer social environments become vulnerable to negative emotional styles such as feelings of inferiority, being sensitive to others' emotions, and suppressing emotions [6-8]. With the progression of SA, people's emotion regulation ability gradually decreases. The affected adolescents show a gradual deterioration of the ability to communicate normally in daily life, while there are also low mood and negative thinking, and in the more serious cases, they will also have subclinical depressive tendencies, seriously affecting their mental health and physical and psychological development. If left untreated, this state may lead to further decline in students' participation in school, exploration of career possibilities, and expectations for future social roles, resulting in larger developmental issues.

4. The essence of peer relationships in regard to adolescents' development

Peer interaction represents an important social developmental context for middle and high school adolescents and peer relationships are strongly related to psychological functioning of individuals. Secure and supportive peer bonds provide adolescents with emotional support and a sense of belonging, which can help to reduce stress, anxious affect and other negative emotions, and therefore, lessen vulnerability to SA. Adolescents develop perspective taking and interpersonal tolerances through continuous communication and collaborative problem solving in the course of daily exchanges with peers; their psychological state is likely to be more positive and balanced and the level of MH is more likely to be maintained.

On the other hand, problematic peer relation develops into chronic psychological stress. A hostile and exclusionary social environment can lead to fear of social interaction and over time, social

avoidance behaviour, which can lead to an increase in SA. A series of negative social interactions also increases the likelihood of developing an inferiority complex, depressive episodes and other clinical psychological problems.

At present, a large number of middle and high school students are in obvious difficulties in the communication of peers. Some students may be excluded because of their personality, performance, looks, family economic background and other reasons, and separated from the group of their peers. In time, they become more solitary, more resistant to interacting with others, fuller of SA and more oblivious to their own self-worth. Some students may be influenced by the herd and make friends with a negative group, and may have psychological imbalance because of the influence of group culture. Online social networking has become a popular way of communicating, and its perils are slowly being made known. If students already know how to interact quickly and with little risk on the internet, they might get used to this and not tolerate lag time and/or uncertainty in real-world interactions; SA will continue to accumulate from online conflict and the insecurities of the unfamiliar social interaction on the internet, leading to a more reserved approach to in-person interactions and further reinforcement of SA.

A multi-layered influencing factors affect the peer relationships and SA status of middle and high school students. Personal traits, interpersonal communication and conflict resolution are all important. The students who are introvert in nature and lack social skills find themselves unable to form positive bonds with other people and thus are more prone to SA. Adolescents social cognition is greatly influenced by family parenting patterns and parent-child interactions [9, 10]. These parentings can be manifested in different ways such as authoritative, emotional neglect and permissive indulgence; all can have an adverse effect on the children's ability and confidence to manage interpersonal relationships, leading to a lack of assertiveness and social interaction and highly visible anxious emotions to peers. At the same time, herd dynamics pushes some teens into small groups of friends with dysfunctional group norms of interaction, while messy relational dynamics add additional psychological burdens to people. With the increasing use of online social platforms, a person's ability to communicate in the real world becomes slowly affected by the online environment: conflicts in chatrooms, random interactions with strangers over the Internet and too much online communication to the point that offline face-to-face communication is neglected, leads to increased shyness in real-life communication and can increase the symptoms of SA.

In general, the reason why the formation of SA in adolescents is not a single one, but it is a combination of their own personality traits, the influence of the family education model, the campus environment, and the social network environment. At the same time, the peer interaction ecology has been negatively affected by several factors in the campus environment: lack of personal social skills, introverted and timid personality traits can make students have difficulties of adapting to group interaction; on the one hand, the authoritative, indifferent or indulgent teaching methods in families can make students lack confidence in interpersonal communication, with a sense of inferiority and sensitivity in peer interaction; On the other hand, the campus environment is also affected by multiple factors that continue to harm the healthy ecology of peer interaction: imbalanced competitive atmosphere, teachers' lack of attention to disadvantaged students in classroom interaction, and problem-solving, and negative social atmosphere within the class, which can lead some students into marginalization and aggravating their SA. Meanwhile, the widespread use of virtual social networking has also made it easier for many students to lack social skills in real life and exacerbated their fears of communicating face-to-face.

From the above empirical findings, it can be concluded that building a pure, supportive and inclusive peer interaction ecosystem is the main and best intervention that can be used to overcome the phenomenon of SA in middle and high school students. This objective requires participation of families, schools and society as a whole – coordinated multi-stakeholder efforts are required. On the side of the adolescent, the first step is to face social challenges, overcome the tendency to reclus and actively develop a good communication skill. They are encouraged to select their peers wisely, act genuinely in their interpersonal relationships in everyday life, participate in activities, and develop their interactive skills gradually and step by step, so as to relieve the symptoms of anxiety gradually.

Meanwhile, the social level should continuously improve the online environment and public opinion environment, such as strengthening media literacy education for youth, advance the platform content supervision mechanism, strengthen positive social content dissemination, etc., guide youth to form a healthy and positive image of making friends online, and reduce the negative influence of the Internet environment on their real-life communication mode. Only through teamwork with multiple forces can people fundamentally change the peer communication pattern of teenagers, effectively eliminate the SA of student groups, and allow every middle school student and high school student to grow up in a relaxed, friendly and warm social environment, campus life freely, and a sunny and cheerful social attitude.

5. Conclusion

This study focused on peer interaction, social anxiety and mental health in middle and high school students. The results imply that peer interactions are important for the psychological development of teenagers. Supportive and positive peer relationships can assist children to maintain their psychological health, increase their sense of belonging, reduce interpersonal pressures and provide emotional support. Conversely, negative peer relationships (rejection, exclusion, conflict, isolation) can increase adolescent's fear of being judged by others and further increase their social anxiety. If these negative peer interactions persist, adolescents may become more sensitive, reclusive, self conscious and emotionally stunted, potentially exacerbating mental health issues.

References

- [1] Shaoyanhong. (2024). Moderating role of learning motivation and learning engagement between peer relationship and academic achievement of junior high school students. *BMC Psychology*, 12(1), Article 324.
- [2] Chiu, K., Clark, D. M., & Leigh, E. (2020). Adolescents' mental health and social anxiety and its relationship with peers. *Journal of Affective Disorders*. <https://www.sciencedirect.com/science/article/pii/S0165032720328998>
- [3] Chiu, K., Clark, D. M., & Leigh, E. (2021). Systematic review and meta-analysis of the prospective relations of peer functioning and social anxiety among adolescents. *Journal of Affective Disorders*, 279, 650–661. https://doi.org/PLACEHOLDER_9_/j.jad.PLACEHOLDER_10_.055
- [4] Sun, H. (2025). Peer relationships influence on the social anxiety of high school students and intervention strategies. *Master Teacher Online*, 11(33), 7-9. https://kns.cnki.net/kcms2/article/abstract?v=K7S5TI5vrASmT_yQCZ9AZreRvJVcjYv0Yw0yWWn_KiSYOtxZaO7tXk_NhXTKI3t0aZFZQPvSxK0x4Q1EoWAFR3m-UuncHGILjloV3fhZVIqWIW4zIIP76UrHHiNezjwbs5GBivgY0CbquCEX42TiX7TJc81u5lm_TZ1HdAP3GFEu0oSbfeUzQ=&uniplatform=NZKPT&language=CHS
- [5] Shao, Y., & Kang, S. (2022). Peer relationship and learning engagement of adolescents: The chain-mediating role of self-efficacy and academic resilience. *Frontiers in Psychology*, 13, 938756. https://doi.org/PLACEHOLDER_11_/fpsyg.PLACEHOLDER_12_
- [6] Mullan, V. M. R., Golm, D., Juhl, J., Sajid, S., & Brandt, V. (2023). Peer victimisation, self-esteem and internalizing symptoms in adolescents: A systematic review and meta-analysis. *PLOS ONE*, 18(3), e0282224.

- [7] Martínez, M., Damme, K. S., Vargas, T., Yang, B., Rompilla, D. J., Stephens, J., Qu, Y., Mittal, V. A., & Haase, C. M. (2024). Longitudinal study of peer victimization, social support and mental health in early adolescence. *Psychological Medicine*, 54(9), 1940–1955.
- [8] Alexander, K. N., Turner, M. S., Salazar, J. P., Cook, M. L., Boyce, L. K., Meter, D. J., & Ramos, A. M. (2025). Cross-lagged panel model of peer victimization and emotion regulation strategies in adolescents. *Journal of Research on Adolescence*, 35(4), e70119.
- [9] Stern, J. A., Costello, M. A., Kansky, J., Fowler, C., Loeb, E. L., & Allen, J. P. (2024). Empathy throughout three generations: Maternal empathy, adolescent empathy, adolescent parenting and child empathy. *Child Development*, 95(5), 1677–1692.
- [10] Qi, H., Li, J., Zhang, Y., & Wang, W. (2022). What is the influence of parent–adolescent relationship on adolescents' internet addictions? Mediating effects of social support and self-control. *Frontiers in Psychology*, 13, 886168.