

## ABSTRACT

Title of Thesis:

THE RELATIONS BETWEEN SCHOOL CLIMATE, PEER PREFERENCE, PEER VICTIMIZATION, AND ADJUSTMENT DIFFICULTIES IN CHINESE MIDDLE SCHOOL STUDENTS

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This study used a cross sectional model to examine the relation between peer victimization and adjustment difficulties in middle school aged youth in China. Furthermore, this study explored the role of school climate and peer preference in the relation between peer victimization and adjustment difficulties. It also examined how different types of victimization (physical, verbal, relational, cyber) can lead to adjustment difficulties and whether school climate and peer preference moderates this relation.

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STUDENTS

by

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## Chapter 1: Introduction

Peer victimization, or being a victim of bullying, is an increasing problem around the world. Being victimized during childhood can lead to negative long-term mental health consequences, including both internalizing symptoms (Kumpulainen & Rasanen, 2000; Reijntjes, et al., 2010) and externalizing problems (Kumpulainen & Rasanen 2000; Reijntjes et al. 2011). It can also lead to increased risk for depression, anxiety, sleep difficulties, and dropping out of school (Centers for Disease Control and Prevention, 2019). Furthermore, perpetrators are at increased risk for substance abuse, academic problems, and experiencing violence later in life (Centers for Disease Control and Prevention, 2019). Additionally, research in Western countries has shown a strong relation between peer victimization and internalizing symptoms such that those who experience peer victimization are more likely to report internalizing symptoms (Sansone & Sansone, 2008; Arseneault et al., 2008, Reijntjes et al., 2010, Holt et al., 2015, Schoeler et al., 2018).

Currently, most of the research is conducted in Western countries (Sittichai & Smith, 2015), but because of the increasing rates of peer victimization around the world, studies in non-Western countries on this issue have also increased (Olweus, 2001). One such example is China, where peer victimization has become a growing concern. In mainland China, the prevalence rates of self-reported peer victimization range from 2% to 66% in different studies across the country (Eslea et al., 2004; Hazemba et al., 2008; Qiao et al., 2009; Cheng et al., 2010; Wang et al., 2012; Chang & Wong, 2015; Xie et al., 2016). Earlier studies tend to show lower prevalence rate (e.g., 2% in Eslea et al., 2004) compared with more recent studies (e.g., Chang & Wong, 2015; Xie et al., 2016). A more recent study by Xie et al. (2018) reported the prevalence for different

types of victimization among 3671 youth age 7-12 years. They found that the prevalence of victimization was 37.32%, with verbal victimization being 30.95%, physical victimization being 19.78%, relational victimization being 18.71%, and cybervictimization being 3.73%. The prevalence varied widely among the studies because the different studies used different criteria to define bullying victimization. Research shows that the appearance of bullying and peer victimization in China could be due to changes in Chinese society, such as family structure and emphasis on academic achievement (Huang, et al., 2013).

School climate is a factor that may affect peer victimization and psychosocial adjustment. According to the National School Climate Council (2007, para. 3), school climate reflects the norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures at a school. It also includes the quality of relationships between students and teachers, perceptions of safety, engagement, respect for diversity, and fairness of rules (Bear et al., 2011; Xie et al., 2016b). Research has shown that a positive school climate can promote positive youth development. According to the U.S. Department of Education, Office of Safe and Healthy Students, a positive school climate includes “factors that serve as conditions for learning and that support physical and emotional safety, connection and support, and engagement.”

Furthermore, a positive school climate can lead to higher academic achievement (Wang et al., 2014; Bear et al., 2018), lower rates of suspension (Bear et al., 2018), better mental health outcomes (Leadbeater et al., 2015), and lower rates of bullying victimization (Espelage et al., 2014). Currently there are studies in China that examine how school climate affects peer victimization and psychosocial adjustment, but there are few that use school climate as a moderator for peer victimization and psychosocial adjustment in middle school students. Furthermore, most research place the different types of victimization (physical, verbal, relational,

and cyber) into one category instead of examining them separately, or they focus exclusively on one or two types of bullying.

In addition, peer preference, which refers to how popular (liked) or unpopular (unliked) peers are by their classmates (Coie & Dodge, 1983) can affect peer victimization and psychosocial adjustment. Research has shown that sociometric peer preference can be predictive of both adaptive and maladaptive outcomes in both social (Parker et al., 2006) and academic (Veronneau & Vitaro, 2007) domains. Currently there are some studies in China that examine how peer preference affects peer victimization and psychosocial adjustment, but there are few that use peer preference as a moderator for peer victimization and psychosocial adjustment in middle school students.

This proposed study will use a cross sectional model to examine the relation between peer victimization and adjustment difficulties in middle school aged youth in China. Furthermore, this study will explore the role of school climate and peer preference in the relation between peer victimization and adjustment difficulties. It will also examine how different types of victimization (physical, verbal, relational, cyber) can lead to adjustment difficulties and whether school climate and peer preference moderates this relation.

This study contributes to the literature by closely examining the different types of victimization and how school climate and peer preference could moderate the relation between these different types of victimization and psychosocial adjustment. School climate and peer preference were chosen to be moderators for this study because not much research in China uses these two variables as moderators. Moreover, this proposal will treat student perception of school climate as an indicator of context and as a resiliency factor. Therefore, it was specifically chosen as a moderator because research has shown it to impact youth development. Furthermore, school

is an important context for bullying. Peer preference was specifically chosen as a moderator because the role of peers become more important in adolescence. Furthermore, this proposal will fill a gap in the literature by focusing on middle school students in China because few research has examined the relations between different types of victimization, school climate, peer preference, and adjustment difficulties among Chinese students.

This proposal will seek to answer the following questions: 1) Do different types of peer victimization predict adjustment difficulties?, 2) Does school climate predict adjustment difficulties?, 3) Does peer preference predict adjustment difficulties?, 4) Does positive school climate moderate the relation between different types of peer victimization and adjustment difficulties?, and 5) Does peer preference moderate the relation between different types of victimization and adjustment difficulties?

## Chapter 2: Literature Review

### Theoretical Framework

This current study will be grounded using Bronfenbrenner's Process-Person-Context-Time model (PPCT; Bronfenbrenner & Morris, 2006; Merçon Vargas et al., 2020). This model has four components: person, proximal processes, context, and time. It is the interaction of those four components that influences an individual's developmental outcomes.

The first element, person, refers to a child's individual level factors, such as their biological and genetic characteristics. Furthermore, it can include personal characteristics, such as how children interact socially with their peers. The second component, process, refers to proximal processes of development, or the reciprocal interaction between an individual and their immediate external environment (Bronfenbrenner & Morris, 2006). Context, the third component to the model, involves four interrelated and interactive system levels: the micro, meso, exo, and macrosystems (Bronfenbrenner & Morris, 2006). These systems are commonly depicted as concentric circles that influence each other and the individual. The microsystem is the smallest and the most immediate environment the individual experiences. It includes settings such as the child's home, peer group, school, or daycare. However, the microsystem also comprises of the interpersonal relations and activities within those immediate environments. For a child, that could be interactions with teachers, parents, and peers (Bronfenbrenner, 1977). The mesosystem comprises of the interactions between the child's microsystems. They may include linkages between home and school, between peer group and family, and other microsystems. The exosystem includes settings that affect the child indirectly. In other words, the individual is not immediately present, but it still influences their development. It can include the parent's workplace, the neighborhood, extended family members, or the mass media (Bronfenbrenner,

1979; 1977). The last system is the macrosystem, and this encompasses larger social and cultural beliefs and values that an individual has. This in turn, influences all system levels (Bronfenbrenner, 1977). Finally, the last component of the model, time, involves all of the preceding factors (person, contest, and process) as they develop and interact over time.

This proposal will explore school and peer relationships as part of the individual's microsystem and Chinese cultural values and norms as part of the macrosystem within the child's context. Although this proposal does not explicitly assess the cultural values and norms, the data were collected in China and therefore values and norms present in Chinese society may influence the child and their experiences.

Additionally, it will explore potential risk and resilience processes that influence developmental outcomes. Such risk and resilience factors include peer victimization, school climate, and peer preference. Peer victimization is a risk factor that may impact youth adjustment outcomes, such that peers who experience more victimization may be at risk for internalizing and externalizing problems. However, peer preference and school climate may serve as resiliency factors. For instance, even if one experiences victimization, if their peers perceive them as popular and they have more peer support, the effect of the victimization is lessened and they can recover from it. Furthermore, school climate, particularly positive student-teacher relationships may also serve as a resiliency factor since it can reduce the effects of victimization if the student has good relationships with caring teachers.

PPCT theory relates to the proposed study because it is possible that individual (peer victimization) and contextual factors (school climate and peers status/popularity) influence each other to predict youth psychosocial adjustment. Positive school climate can indicate what the broader environment at school is like. This might include caring teachers, supportive peers, and

clear rules, which contribute to better psychosocial adjustment of students. Therefore, it is possible that positive school climate could buffer the negative effects of peer victimization by providing additional support in the school microsystem. One would imagine that even when students experience victimization if they view their schools as a safe place and feel supported by teachers and peers they are more likely to have better psychosocial adjustment due to these additional supports compared to students who view their schools as less supportive. In other words, student perception of school climate can serve as a resiliency factor even if they experience victimization. Similarly, peer preference is part of the context and indicates how the individual is perceived by their peers. If they experience victimization, but are still popular and liked by other peers, it can serve as a buffer to the negative effects of peer victimization.

Furthermore, two social theories can be used to help understand the connection between school climate and bullying. The first is social disorganization theory (Shaw & McKay, 1942), which suggests that youth acquire delinquent behaviors such as bullying because the social environment limits the community's (i.e. parents, schools) ability to control adolescent behavior (Espelage & Swearer, 2009) or protect the victims. The other is social control theory (Hirschi, 1969) and this theory suggests that an individual will engage in delinquent acts when their bond to society is weak, in this case the school and important people in the school. Therefore, for students who feel unsupported and unconnected to schools, they are more likely to engage in acts such as bullying. As a result, their peers may experience more peer victimization. Similarly, in schools where there are higher rates of bullying and lower social control, individuals will feel that bullying is acceptable since the school doesn't try to stop the behavior. As a result, students who are in schools where their bond to the school is weak, they feel unsupported, and they view

bullying behavior as acceptable, are more likely to engage in bullying so their peers experience more victimization as well.

### Peer Victimization

In a school context, peer victimization can be seen as experiencing bullying. Bullying is defined as a negative, intentional behavior, whether physical, verbal, or psychological that is displayed by children toward their peers. The actions are repeated over time and imply an imbalance of power (Olweus, 1991).

Bullying behavior can take many different forms. Historically, bullying was viewed from its direct forms, such as repeated verbal and physical acts. Verbal bullying included name-calling and making threats while physical bullying included pushing shoving, hitting, or other violent behaviors aimed at the victim or their property (Slonje & Smith, 2008). However, during the past two decades, researchers and practitioners have recognized other indirect forms of bullying, such as social and relational bullying. Social bullying damages a peer's social standing through spreading rumors or lies. Relational bullying damages a peer's relationships through exclusion or breaking friendships (Monks & Smith, 2006).

With the increasing use of information and communication technologies among youth, the prevalence of cyberbullying is also on the rise (Jones et al., 2013). Cyberbullying can be defined as an "aggressive act or behavior that is carried out using electronic means by a group or individual repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al., 2008, pg 1)." Cyberbullying can include actions such as online harassment, flaming, cyberstalking, denigration (put-downs), masquerade, outing, and exclusion (Willard, 2006).

Cyberbullying is similar to bullying in that the actions are negative and intentional. However, the delivery of the action is electronic. Unlike bullying, there are several features that make cyberbullying different. Such factors include anonymity, 24/7 access to technology, the breadth of the audience, the permanence of the content, and the tendency for more aggressive attacks due to the online disinhibition effect (Suler, 2004). Despite these differences, cyberbullying is still considered a form of bullying. It is just manifested in a different way but with similar outcomes to traditional bullying (Campbell & Bauman, 2018).

#### *Relation Between Peer Victimization and Adjustment Difficulties*

##### **Face to Face Victimization In Western Countries**

Students who experience peer victimization can experience adjustment difficulties, such as internalizing symptoms. Research has shown that students who experience victimization often develop internalizing symptoms such as depression and anxiety (Kaltiala et al., 2000; Kumpulainen & Rasanen, 2000). One longitudinal study examined differences between bullies, victims, and bully-victims on internalizing psychopathology (depression and anxiety). Results indicated that bully-victims and victims were more likely to be depressed than victims and those who did not have bully/victim problems. Furthermore, bully-victims and victims were also more likely to experience anxious symptoms than bullies and those who did not have bully/victim problems. Therefore, results indicate that bully-victims may be the most impacted when it comes to depression and anxiety (Swearer et al., 2001). Moreover, a meta-analysis of longitudinal studies on the relation between peer victimization and internalizing symptoms showed that peer victimization significantly predicted internalizing problems over time. In other words, peer victimization at time 1 was associated with higher levels of internalizing problems at follow-up, which ranged from 6 months to 2 years( Reijntjes et al., 2010). Furthermore, a recent meta-

analysis by Holt et al (2015) also found that being involved in bullying in any capacity (victim, perpetrator, and bully-victim) was associated with suicidal ideation and behavior. Another meta-analysis that looked at all relevant quasi-experimental studies examining the consequences of bullying victimization found that bullying victimization may causally impact children's well-being in the short term, especially anxiety and depression (Schoeler et al., 2018). Overall, results from these meta-analyses show that students who experience victimization often develop internalizing problems.

Fewer studies have examined different types of victimization and their impact on students' adjustment, such as their mental and physical health.. A research study reported by Crick and Bigbee (1998) found that regardless of the type of victimization, victims reported high levels of internalizing problems. Furthermore, there was a gender difference in that girls were more likely to report the worst mental health conditions, with higher levels of depression and suicidal ideation (Kaltiala et al., 1999; Rigby & Slee, 1999).

Another cross sectional research study by Baldry (2004) determined the extent to which direct and indirect bullying and victimization at school affected the mental and physical health of youth aged 11 to 15 years. Students reported internalizing symptoms such as withdrawn behaviors, somatic complaints, and anxiety and depression using the Youth Form of the Achenbach's Child Behavioral Checklist. Results indicated that being a victim of indirect bullying (relational- such as spreading rumors and intentionally not talking to someone) was the strongest predictor of withdrawn behaviors, somatic complaints, and anxiety/depression (independent of direct victimization) while being a victim of direct bullying (physical- such as hitting and verbal- such as threatening or calling someone names) significantly predicted somatic complaints, anxiety, and depression but not withdrawn behaviors. Similar to Kaltiala et al.

(1999) and Rigby & Slee (1999), Baldry's study also found a gender difference in that being a girl was a strong significant risk factor for all internalizing symptoms. Therefore, the results from the Baldry (2004) further provide support that regardless of the type of victimization, victims experience a high level of internalizing symptoms. This proposed study will focus mainly on the victims, and examine the effects of different types of victimization (direct- verbal and physical, indirect-relational, and cyber) on adolescent adjustment among Chinese students.

### Cyberbullying In Western Countries

Next, we will review the literature on cyberbullying and adjustment difficulties. In this paper, cyberbullying refers to those who are experiencing the cybervictimization. Findings from two meta-analyses (Fisher et al., 2016; Kowalski et al., 2014) and a review (Nixon, 2014) indicated that being a victim of cyberbullying is associated with significant mental health risks. These include depression, anxiety, somatic symptoms, and suicidal ideation. These negative mental health risks are also still present even after controlling for traditional bullying such as physical, verbal, and relational forms (Bonanno & Hymel, 2013). Overall, the literature demonstrates significant associations between cyberbullying and serious internalizing difficulties such as depression (Olenik-Shemesh et al. 2012; Perren et al. 2010; Ybarra & Mitchell, 2004) and suicidality (Hinduja & Patchin 2010; Schneider et al. 2012).

### Face to Face Victimization in China

Thus far, the literature discussed has been on research conducted in Western countries. Now the relation between peer victimization and adjustment difficulties in China will be examined. Studies in China have shown similar results to those in Western countries, in that students who experience victimization reported worse psychosocial adjustment and more

internalizing symptoms compared with peers who did not experience victimization (Cheng et al., 2010).

A recent study by Zhang , Zhou, and Tao (2019) provide further support for this. Their study investigated the prevalence of bullying among school aged children (grades, 6, 8 , and 10) and the correlations between bullying and psychosocial adjustment. Psychosocial adjustment in their study was operationalized as self-confidence, life satisfaction, truancy, academic achievement, classmate relationships, smoking, and being drunk. Results indicated that in the last 3 months, the prevalence of perpetration was 2.5%, victimization was 6.3%, and both bullying and victimization was 2.2%. Furthermore, those involved in bullying, either as a perpetrator, victim, or bully-victim reported poorer psychosocial adjustment. Victims, in particular, tended to report less self-confidence, lower life satisfaction, and poorer relationships with classmates. In addition, Hong et al. (2016) investigated how bullying behaviors was related to suicidal ideation among high school students. The study found that in terms of prevalence (in the past month) the percentage of students reporting perpetration was 1.5%. victims was 4.5%, and bully-victims was 3.0%. Furthermore, results revealed that being involved in bullying in all different forms (perpetrations, victim, and both) was related to an increased risk of suicidal ideations Findings from these three studies reveal a similar trend found in Western countries in that those who experience victimization report poorer psychosocial adjustment overall.

### Cyberbullying in China

We will review the relation between cyberbullying and adjustment difficulties in China here. Similar to the research in Western countries, studies in China have shown that those who experience cyberbullying also have poorer psychosocial adjustment and more internalizing symptoms. Several studies look at both traditional victimization and cyberbullying and the

consequences of both. For example, a study by Peng et al (2019) investigated the association between traditional and cyberbullying on suicidal ideation, self-harm, and suicide attempts in Chinese adolescents. They found that 16.7% of the adolescents reported traditional victimization, 9.0% reported cyberbullying victimization and 3.5% reported both. Results also revealed that victims of both types of bullying had greater risk of suicidal ideation only, suicidal ideation plus self-harm, and suicide attempts. However, compared to nonvictims, victims of cyberbullying were at the second highest risk of suicide ideation only and suicidal ideation plus self-harm. Therefore, this study showed that although victims of both types of victimization are at the greatest risk, victims of cyberbullying only also suffer negative consequences.

In addition to suicidal ideation, self-harm, and suicide attempts, victims of traditional bullying and cyberbullying report psychosomatic symptoms as well, such as headache, sleep problems, and abdominal pain (Li et al., 2019). In the Li et al. (2019) study 35.6% reported being victims of traditional bullying and 9.5% reported engaging in bullying perpetration (face-to-face). For cyberbullying, 31.4% reported being victims while 16.6% reported being perpetrators. Furthermore, a study by Chu et al (2018) examined how cyberbullying victimization was related to depression and anxiety among Chinese adolescents aged 11 to 15 years. The results revealed that a high percentage of the sample (74.6%) reported being a victim of cyberbullying in the past year and that experiencing cyberbullying victimization is positively related to symptoms of depression and anxiety.

Finally, a study by Zhu et al (2019) examined the association between cyberbullying and several health and mental health problems among adolescents in China. In this study, 22.2% of adolescents reported having experienced cyberbullying in their lifetime and 6.3% reported having experienced cyberbullying in the past year. Furthermore, results revealed that

cyberbullying victimization had a negative impact on Chinese adolescents. Victims reported lower levels of overall health, higher levels of depressive symptoms and PTSD symptoms. Results also showed that cyberbullying was associated with addictive behaviors, such as substance misuse and gambling engagement. Thus, results from these studies suggest that adolescents who experience cyberbullying in China demonstrate similar health and mental health problems as those in Western countries, including internalizing problems such as depression and anxiety, and poorer psychosocial adjustment.

### School Climate in Western Countries

Based on Bronfenbrenner's PPCT theory (Bronfenbrenner & Morris, 2006), school climate is a contextual factor that influences both the individual and proximal processes occurring within the micro-system of the school. Therefore, school climate could be an effective buffering factor since a positive school climate indicates a supportive environment. On the other hand, a negative school climate may promote a "culture or climate of bullying." This is when students perceive and share the belief that the school is tolerant or supportive of bullying so they continue to perpetuate it (Bradshaw & Johnson, 2011).

Research conducted in Western countries has established that a positive school climate is related to less peer victimization (Waasdorp et al., 2011; Wang et al., 2013) as well as predictive of decreases in victimization over time (Leadbeater et al., 2015; Turner et al., 2014). Student perceptions of school climate also predicted later decline in internalizing symptoms (Leadbeater et al., 2015).

### School Climate as a Moderator

#### School Climate and Face to Face Victimization

Given that a positive school climate leads to less peer victimization and internalizing symptoms, it is possible that a positive experience of school climate could buffer, or serve as a moderator, for adolescents who experience peer victimization and adjustment difficulties.

Several studies support this. Stadler et al. (2010) found a moderation effect of school support (comprised of school climate, teacher support, and school attachment) on the association between traditional victimization and mental health problems. Students who experienced traditional victimization reported more mental health problems when there were low levels of school support and reported less mental health symptoms when there were high levels of school support.

Similarly, another study found the same association between relational victimization and internalizing symptoms, in that students who experienced relational victimization reported less internalizing symptoms when there was greater school connectedness (Morin et al., 2015). Furthermore, Wang, La Salle, Wu, and Sullivan (2018) found that for Asian American middle school students, positive school climate buffered the relation between traditional victimization and suicidal thoughts and behaviors. The findings from these three studies give support that a positive school climate can buffer the adjustment difficulties that youth may experience as a result of peer victimization. The buffer on adjustment difficulties may be due to supportive relationships in a positive school climate. Researchers have found that for adolescents who are victimized higher levels of social support from teachers and parents are associated with less emotional and behavioral problems (Yeung & Leadbeater, 2010). As indicated by Rigby (2000)

and Natvig, Albreksten, & Qvarnstrom (2000) social support by teachers, peers, and parents can reduce the negative consequences of bullying.

However, we do not know if different components within school climate function similarly as a buffer; whether the relation holds true for Chinese middle school students, or whether school climate may buffer cyber victimization. Only a few research has examined specific dimensions of school climate such as student– teacher relationships, peer relationships, and the application of consistent, clear, and fair rules.

In terms of student-teacher relationships, positive relationships between students and teachers were associated with less physical and verbal/relational bullying in several studies (Flaspohler et al., 2009; Richard et al., 2012). Roland and Galloway (2004) examined the dimensions of student-teacher relationships and fairness of rules. They found that primary school students reported lower levels of victimization when they perceived that the school policies and rules were clear, consistent, and fair, and that student-teacher relationships were positive.

Another study by Sulkowski & Simmins (2018) investigated three dimensions of school climate: student– teacher relationships, peer relationships, and the application of consistent, clear, and fair rules among a sample of high school aged adolescents. Specifically, they examined whether teacher–student relationships protected against peer victimization and its negative psychosocial effects such as depression, anxiety, and stress. Additionally, they examined the influence of teacher–student relationships, peer relationships, and students’ perceptions of school order and discipline. Results indicated that teacher–student relationships buffered against experiencing psychosocial distress associated with peer victimization. Teacher–student relationships served as a buffer because positive relationships allowed students to feel socially and emotionally supported even if they were victimized. Furthermore, positive teacher–

student relationships, peer relationships, and students' perceptions of school order and discipline were all negatively associated with peer victimization and psychosocial distress.

Overall, the findings from these studies show that positive school climate, consisting of positive teacher-student relationships, positive peer relationships, and fair and clear rules, may reduce the impact of peer victimization and provide a buffer to the psychosocial distress experienced.

### School Climate and Cyberbullying

Thus far, school climate has been discussed in terms of traditional victimization. Now its effect on cyberbullying will be examined. Research examining the link between cybervictimization and school climate is limited and the findings are mixed. more positive experiences of school climate were associated with less cybervictimization during the school year in a sample of elementary school students (Holfeld & Leadbeater, 2017). However, cybervictimization may also lead to poorer experience of school climate for adolescents. Although this pathway is less commonly investigated, Holfeld and Leadbeater (2017) found support that cybervictimization could influence school climate, particularly for the student-teacher relationship. This is because adolescents who experience victimization typically report more problems in their interpersonal relationships (Leadbeater et al, 2014), mistrust their peers (Ladd et al., 2014), and perceive the school environment as unsafe (Nickerson et al., 2014). Because these adolescents have trouble in their interpersonal relationships and perceive the school environment as a hostile place, they are not likely to seek support from peers or teachers at the school and could experience more internalizing symptoms (Leadbeater et al., 2015).

### School Climate as Moderator of Victimization-Adjustment Relation

Seeing that youth experience adjustment difficulties because of cybervictimization (Olenik-Shemesh et al. 2012; Perren et al. 2010; Ybarra & Mitchell, 2004) it is important to examine factors that could buffer the negative consequences from cyberbullying. Since the literature indicates that school climate is related to cybervictimization, it is possible school climate may be a buffer. There is evidence that school climate can be protective in terms of cybervictimization. In a study by Kim et al., (2018) it was found that the association between cybervictimization and suicidal behavior was reduced for adolescents who reported greater school connectedness (positive relationships with students and teachers, and perceived sense of belonging and support). In another study by Wang, La Salle, Wu, and Sullivan (2018) they found that for Asian American middle school students, positive school climate buffered the relation between cybervictimization and suicidal thoughts and behaviors. It is possible that positive experiences of school climate acts as a buffer for adolescents because of the support they feel. Since they feel supported, it promotes healthy interpersonal relationships with both peers and teachers and more adaptive coping skills (Leadbeater et al., 2015).

However, the literature is mixed. One study found that the opposite is true. Holfeld and Baitz (2020) examined the mediating and moderating roles of social support (peers, family) and experiences of school climate (students' feelings of safety and caring in the school environment) on the association between cybervictimization and internalizing symptoms. They found that positive experiences of school climate was a significant moderator, however, it strengthened the association between cybervictimization and internalizing symptoms. That meant when students reported higher feelings of safety and caring by teachers at school, they were more susceptible to the high internalizing symptoms associated with high cybervictimization. This is in direct

contrast to the results in the Kim et al. (2018) study where they found that the association between cybervictimization and suicidal behavior was reduced for adolescents that reported greater school connectedness.

Although the result from the Holfeld and Baitz (2020) study was contrary to Kim et al.'s (2018), it could be explained by the healthy context paradox (Huitsing et al., 2019; Salmivalli et al., 2018). This paradox states that students who experience victimization in schools where the rates of peer victimization are infrequent or decreasing may actually feel worse since it is unexpected (Gini et al., 2019). In schools where students have poor experiences of school climate, such as poor relationships between students and teachers and unclear or unfair rules, traditional and cybervictimization is common and not consistently addressed. Therefore, in these types of schools where victimization is common, the impact of cybervictimization on internalizing symptoms may be less severe than in schools where victimization is less encountered.

Overall, the literature shows that school climate could be a moderator for the association between peer victimization and adjustment difficulties, however more research is needed to examine the direction of the relation, especially among Chinese adolescents considering the unique context in Chinese schools.

### School Climate in China

What has been discussed thus far have been studies conducted in Western countries. Less is known about the relations between school climate, peer victimization, and adjustment difficulties in China. However, we do know that the Chinese school context is different than Western countries. For example, Chinese culture (macrosystem) places more emphasis on respect for authority (teachers), education, social harmony, and behavioral regulation as

compared with the U.S. culture. For Chinese students, learning is a way to contribute to society, and teachers are held in high regard (Li, 2005; Li, Xie, & Wang, 1998).

In addition to this cultural value of education, school is also structured so that character and moral education is included in the curriculum through moral/ideological class and other school subjects. Students are taught civilized behavior, patriotism, personal integrity, and morality (Zhao, 2005). Furthermore, in Chinese schools, students remain with the same group of peers throughout the day while teachers travel to the classrooms. This allows for more opportunities for teacher-student and student-student bonding and also promotes social harmony (Yang et. al., 2013). Therefore, the cultural value of education, the Chinese curriculum, and respect for teachers could contribute to a more positive school climate and less bullying and victimization.

However, recently China has experienced societal changes including rapid economic development, globalization and changes in family structures (Huang et al., 2013). There has been the socialization of traditionally individualistic traits, such as assertiveness, independence, and competitiveness in children (Chen & Chen, 2010) in Chinese society. These societal changes may have contributed to increasing rates of bullying and victimization (Cheng et al., 2010; Huang et al., 2013). Therefore, due to the changes in Chinese society, and the disruption of peer victimization on student adjustment, it is important to examine factors that may buffer the relation between peer victimization and psychosocial adjustment. Given that a positive school climate in Western countries may be a protective factor for youth mental health, it is possible that the same could be true of schools in China. Several studies have examined this.

Some studies found that positive school climate is negatively related to delinquency and peer victimization in China. Bao, Li, Zhang, & Wang (2015) found that lower perceived school

climate was related to higher rates of delinquency for adolescents in China, suggesting that schools where there is less connection between students and school, and when schools are less organized, students may engage in more behavior problems. Furthermore, two cross-sectional studies found that general school climate (Wang et al., 2014) and positive student-student relationships (Cheng, 2010) were concurrently related to peer victimization in China, where more positive school climate and student-student relationships led to less peer victimization. Another study by Jia and colleagues (2009) found that positive school climate is negatively associated with depressive symptoms for Chinese students. Therefore, results from across these four studies suggest that school climate may predict peer victimization and adjustment in adolescents, including both externalizing and internalizing symptoms.

Furthermore, Wang, Boyanton, Ross, Liu, Sullivan, & Do (2018) conducted a longitudinal study that examined the relations among school climate, victimization, covitality, internalizing symptoms, and academic achievement outcomes for elementary school students in China. They also investigated whether school climate moderated the relation between victimization and mental health outcomes. They found that higher victimization and lower school climate predicted more internalizing symptoms, but that school climate did not serve as a moderator. In other words, there was a relationship between low school climate and higher victimization, but school climate was not a buffer. However, although school climate did not serve as a moderator, results still demonstrated that positive school climate (including student-teacher relationships, clear expectations, respect for diversity, and fairness of rules) negatively predicted victimization and internalizing symptoms among Chinese elementary school students.

Overall, the literature on school climate, peer victimization, and adjustment difficulties in China shows that school climate correlated with victimization and adjustment difficulties.

However, more research is needed in order to examine whether school climate could be a moderator of the relation between victimization and adjustment.

### Peer Preference

Bullying and peer victimization occurs in the peer context. Peer preference closely relates to students' experience with bullying. Sociometric peer preference is measured based on liking (acceptance) and disliking (rejecting) peer nomination items (Coie & Dodge, 1983; Newcomb & Bukowski, 1983). Adolescents with different peer preference, or popularity are likely to experience different peer interactions. Although all peers are subject to victimization those with a low peer preference (e.g., being unpopular and rejected) may be at a higher risk of experiencing peer victimization and adjustment difficulties than those with a high peer preference (e.g., being popular or liked).

Youth who are perceived as unpopular by their peers are often at a greater risk of being victimized (Rubin et al., 2009), and have fewer reciprocal friends as well as higher loneliness (Gorman et al., 2011). As a result these adolescents have less support from friends and are more likely to experience adjustment difficulties. However, being popular among peers could act as a protective factor. Peers who are popular are less likely to be victimized and more likely to have social support, peer attention, and reinforcement from peers (Sentse et al. 2015). They are also more likely to have higher self esteem and lower depression and anxiety (Litwack et al. 2012). Thus, peer preference, or popularity could serve as a protective factor, or buffer, against the adjustment difficulties experienced from peer victimization .

For example, a short term longitudinal study by Long, Zhou, and Li (2019) examined whether popularity status insecurity mediated the relation between relational victimization and internalizing problems (depression and anxiety) among Chinese 7<sup>th</sup> and 8<sup>th</sup> graders. They also

examined whether the mediational process was moderated by popularity status, which was measured by peer nomination of popular and unpopular classmates. Their results showed that popularity status insecurity did mediate the relation between relational victimization and internalizing problems, but only for adolescents with low popularity. Therefore, the findings suggest that relationally victimized unpopular adolescents are more likely to experience popularity status insecurity and are at a greater risk for experiencing depression and anxiety afterwards than compared to their peers. Results from Long et al. (2019) suggest that peer preference could buffer against internalizing symptoms related to relational victimization. Adolescents who have a higher popularity have more peer support, and so are better able to cope with the relational victimization through the support provided by their peers (Litwack et al. 2012 ; Schmidt & Bagwell, 2007). As a result, they are less affected by the relational victimization and less likely to develop internalizing symptoms.

However, more research is needed in this area, as a study by Swirsky & Xie (2021) found different results. This study examined the moderating effects of three peer-related factors (peer support, peer preference, and social status) on the association between peer victimization (overt and social) and adjustment outcomes (loneliness and aggression) among seventh graders in the United States. Peer support was measured through a Likert self report scale ranging from 0 (none) to 4 (all the time). Social status was also measured through a self report of two items: popularity (“Some kids are very popular with their peers. That is, many classmates like to hang out with them or do things with them”) and cool (“This person is really cool. Just about everybody in school knows this person”). Peer preference was measure through a class nomination technique where participants were asked to nominate an unlimited number of classmates whom they liked most and liked least (Swirsky & Xie, 2021). Overall, results showed

that both forms of victimization were positively associated with loneliness under high peer preference and were negatively associated with aggression under low peer preference (Swirsky & Xie, 2021). Furthermore, peer preference moderated the association between both forms of victimization and aggression whereas peer support and social status did not moderate any of the associations between either form of victimization and either adjustment outcome. In this study, peer preference (how much classmates liked or disliked them) impacted victim adjustment even after controlling for status and peer support. High peer preference didn't decrease the loneliness experienced as a result of victimization. In fact, high preference victim experienced increased loneliness (Swirsky & Xie, 2021). It is possible that when youth who are well liked (high preference) are victimized, it goes against their expectations and as a result they start to blame themselves or attribute the victimization to personal characteristics. Therefore, because these youth blame themselves for the victimization, they feel more lonely (Graham & Juvonen, 1998).

### Hypotheses

The proposed study will examine the relations between Chinese middle school students' experiences of different types of peer victimization and psychosocial adjustment, as well as how school climate and peer preference can serve as a moderator for the different types of victimization (physical, verbal, relational, and cyber) and adjustment difficulties. This study seeks to answer the following questions: 1) Do different types of peer victimization predict adjustment difficulties?, 2) Does school climate predict adjustment difficulties?, 3) Does peer preference predict adjustment difficulties? 4) Does positive school climate moderate the relation between different types of peer victimization and adjustment difficulties? and 5) Does peer preference moderate the relation between different types of victimization and adjustment difficulties?

Based on my previous review of the research, I hypothesize that (1) all types of peer victimization (physical, verbal, relational, and cyber) predicts adjustment difficulties, such that a higher rate of victimization leads to higher levels of adjustment difficulties, (2) school climate predicts adjustment difficulties such that a positive school climate will lead to less adjustment difficulties, (3) Peer preference predicts adjustment difficulties in that those who are more popular, or liked by their peers will have less adjustment difficulties than those who are less liked, (4) School climate will be a significant buffer for the relation of all types of peer victimization -physical, verbal, relational, and cyber with adjustment, and (5) Peer preference will be a significant moderator for the relation of all types of peer victimization -physical, verbal, relational, and cyber on adjustment.

## Chapter 3: Methods

### Design

This is a quantitative, cross sectional design study using secondary data collected from 734 Chinese 7<sup>th</sup> to 8<sup>th</sup> grade students from 2 middle schools in Beijing, China. The original study was approved by the Research Committee. Parents gave consent for their adolescents to participate in this survey. Data were collected from student self-report data. The measures used were the Delaware Bullying Victimization scale (Bear et al., 2016; Xie et al. 2016a ), a scale measuring psychosocial adjustment from the Swearer Bully Survey (Werth et al., 2015), three subscales from the Delaware School Climate Survey, which included the student-teacher relationships, respect for diversity, and clarity of expectations (Bear et al., 2011; Xie et al., 2016b), and a peer nomination measure for peer preference.

### Participants

The participants were 734 7th to 8th-grade students from two middle schools in Beijing, China. The sample was 54.1% male ( N= 397 boys) and 45.8% female (N = 336 girls). Participants' ages ranged from 11 years-old to 14 years-old ( $M_{age}= 13.22$  years,  $SD= 0.730$  years). 55.2% (N = 405) of the participants were in the 7<sup>th</sup> grade while 44.8% (N = 329) were in 8<sup>th</sup> grade. Based on student self-report, family income differed ( 1% reported making 3000 yuan or less, 9.7% reported making between 3000-5000 yuan, 20.6% reported making 5000 to 8000 yuan, 25.1% reported making 8000 to 12,000 yuan, 21.7% reported making 12,000 to 20,000 yuan, and 18% reported making 20,000 yuan and above). Fathers' highest level of education varied (1.7% elementary or below 10.4% middle school education, 25% high school education, 45% college graduates, and 13.4% with advanced degrees). Mothers' highest level of education also varied (1.8% elementary or below, 8.9% middle school education, 28% high school

education, 45.9% college graduates, and 11.2% with advanced degrees). Most fathers (93.7%) and mothers (85.5%) were employed.

### Procedure

This was a secondary data analysis utilizing data collected from two middle schools in Beijing, China during spring 2018. The original data collection was approved by the Institutional Review Board. The process was as follows: First, principals from the two middle schools in Beijing, China were contacted and agreed to participate in the project. Parents in those schools were then notified of the study and given the option to withdraw their children from participation. No parents opted out. Then, students from the two middle schools in Beijing, China completed the Mandarin Chinese versions of all the measures using paper and pencil. Data collection was conducted during the regular class. Graduate research assistants (students in school psychology) completed systematic training and collected data in the classroom. Researchers read the instructions and answered student questions during data collection. The measures were both distributed and collected on the spot and data was de-identified to maintain confidentiality.

### Measures

#### *Demographics*

This study included the age, gender, and grade level of the participants.

#### *Psychosocial Adjustment*

Psychosocial adjustment was measured using six items from the Swearer Bullying Survey Chinese version (Werth et al., 2015) which assesses how students perceive their social and emotional maladjustment related to bullying victimization at school. Specifically, students rated their social and emotional maladjustment (e.g., made me feel bad or sad; made me feel

sick; I had difficulty learning; I couldn't make friends) on a 1 (never a problem) to 5 (always a problem) Likert-type scale. Werth and colleagues conducted a principal component analysis (PCA) to assess the factor structure of the scale. They found the six-item scale explained 54.95% of the variance,  $\chi^2 (15) = 559.22$ ,  $p < .001$ , with factor loadings ranging from .57 (Didn't come to school) to .79 (Made me feel bad or sad; made me feel sick). The measure also had good internal consistency, Cronbach's  $\alpha = .83$  (Werth et al., 2015). Cronbach's alpha for this sample was  $\alpha = 0.93$ .

### *Peer Victimization*

Students' perceived peer victimization was measured using the Delaware Bullying Victimization Scale-Student-Chinese version (DBVS-S; Bear et al., 2016; Xie et al., 2016a; Xie et al., 2018). It is a 12-item scale that consists of items measuring physical victimization (e.g. "I was deliberately pushed by others"), verbal victimization (e.g. "A classmate said mean things to me"), and relational victimization (e.g. "A classmate told others to not be friends with me"). Additionally, 4 items were added to assess cybervictimization ("e.g. Send me harsh or hurtful messages using email, mobile phone, text messages, WeChat, QQ, or similar electronic means, and "Post bad things or rumors about me on social media sites such as WeChat, QQ, or Weibo").

Students indicated the frequency of their perceived victimization by peers on a six-point Likert scale ranging from 1 (never), 2 (occasionally), 3 (multiple times a month), 4 (once a week), 5 (multiple times a week), to 6 (every day). Prior study showed that the Chinese version of the DBVS-S has high internal consistency ( $\alpha = 0.70$  to  $0.82$ ) and validity (Xie et al., 2016b). The subscales for physical, verbal, and relational victimization also have high internal consistency, with Cronbach's alpha ranging from 0.76 to 0.90 (Wang et al., 2020). For this

sample, the Cronbach's alpha is as follows: victimization total (0.89), physical (0.82), verbal (0.86), relational (0.87), and cyber (0.95).

#### *Peer Preference*

Peer preference was measured using a peer nomination technique. Students were invited to name three classmates they wanted to play with the most (marked as a positive peer nomination), and three classmates they wanted to play with the least (marked as a negative peer nomination). Nominations for each item, both positive and negative, were tallied, and then standardized within classrooms. To calculate popularity, the standardized unpopular item was subtracted from the standardized popular item. The subtracted scores were then standardized again within classrooms to obtain the popularity score (also called social preference index). A higher popularity score indicates more peer likability whereas a lower popularity score indicates less peer likability. Only students with parent consent participated in this nomination activity.

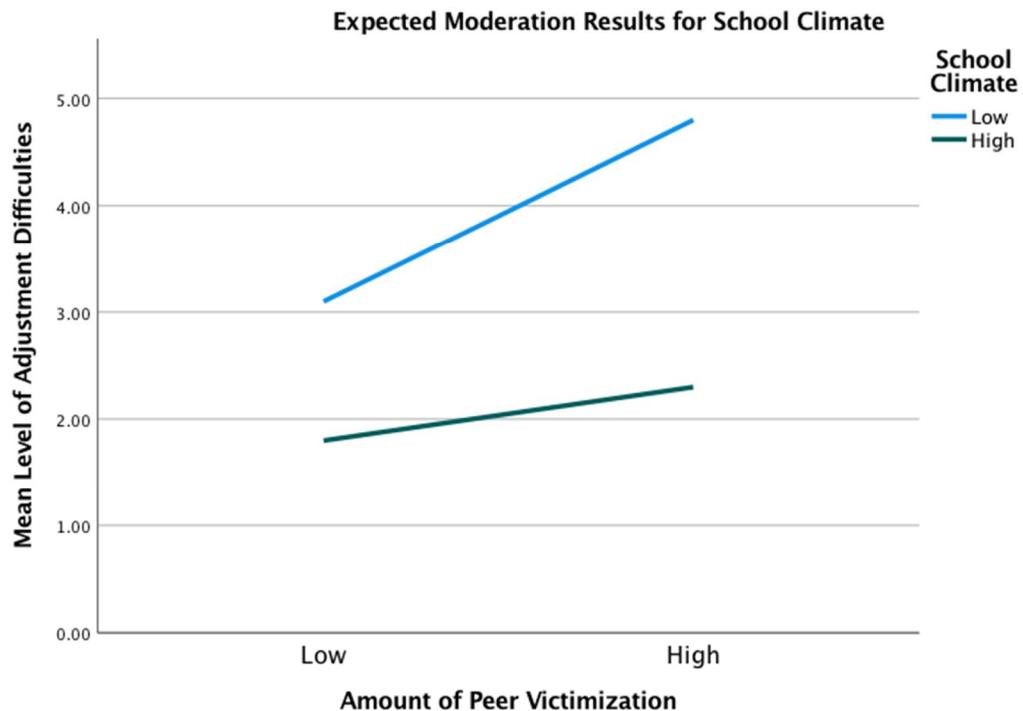
#### *School Climate*

School climate was measured using three subscales from the Delaware School Climate Survey-Student-Chinese version (Bear et al., 2011; Xie et al., 2016b). Each subscale has 4 items for a total of 12 items. We used subscales measuring Teacher–Student Relationships (e.g. “I like my teachers”), Respect for Diversity (e.g., “Students respect others who are different”), and Clarity of Expectations (e.g. “Students know what the rules are”). Students responded to items on a four-point Likert scale (1= strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). The Chinese version has shown high reliability (0.80) and validity (Xie et al., 2016b). Internal consistency Cronbach's alpha ranged from 0.73 to 0.84 for subscales (Wang et al., 2018 ). The Cronbach's alpha for this sample is as follows: school climate total (0.88), teacher-student relationships (0.84), respect for diversity (0.75), and clarity of expectations (0.82).

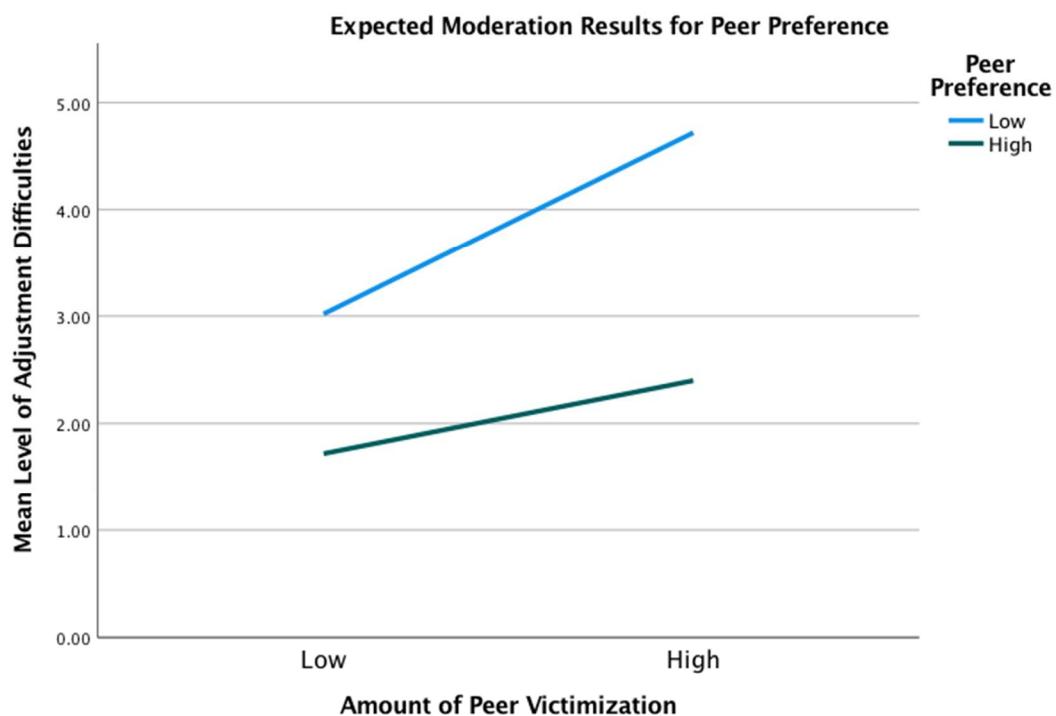
### Data Analyses

Descriptive statistics were assessed, including means, ranges, and standard deviations of all studied variables to determine the rates of peer victimization and adjustment difficulties. Three regression analyses were conducted to address research questions 1, 2, and 3. First, a regression analysis was conducted to determine if peer victimization (four different types) significantly predicts adjustment difficulties. Then, a regression analysis was conducted to determine if school climate (three different subscales) significantly predicts adjustment difficulties. Finally, a regression analysis was conducted to determine if peer preference significantly predicts adjustment difficulties. Furthermore, additional regression analyses were run to examine the moderation effect of school climate and peer preference. For all the regression analyses, gender was dummy coded. To conduct the moderation analysis, I used the PROCESS package in SPSS version 24.0. I mean centered the independent variables and moderators before calculating the interaction effects. For this analysis, if the interaction was significant, it suggests there is a significant moderation effect. Then I used simple slope analysis to further examine the significant interactions. See figures 1 and 2 for graphs of hypothesized moderation results for both school climate and peer preference.

**Figure 1.** Hypothesized Moderation Results for School Climate



**Figure 2.** Hypothesized Moderation Results for Peer Preference



## Chapter 4: Results

The results were organized based on the five research questions addressed in this thesis:

1) Do different types of peer victimization predict adjustment difficulties?, 2) Does school climate predict adjustment difficulties?, 3) Does peer preference predict adjustment difficulties?, 4) Does positive school climate moderate the relation between different types of peer victimization and adjustment difficulties?, and 5) Does peer preference moderate the relation between different types of victimization and adjustment difficulties? In this sample, 30% of students reported experiencing verbal victimization, 21.2% relational victimization, 21.4% physical victimization, and 14.2% cybervictimization. See table 1 for the demographics of the data and table 2 for the mean, SDs, and correlation of key variables.

### **Demographics and Descriptive Statistics**

**Table 1.** *Sample Demographics*

Demographic Variables	Total Sample	
	N	%
<b>Child Gender</b>		
Female	336	45.8
Male	397	54.1
<b>Age</b>		
11 years	3	0.4
12 years	264	36.0
13 years	318	43.3
14 years	117	15.9
<b>Grade Level</b>		
7 <sup>th</sup>	329	44.8
8 <sup>th</sup>	405	55.2
Total	734	100

**Table 2.** Descriptive Statistics of Variables of Interest

	1	2	3	4	5	6	7	8	9	10
1.School Climate	1									
2.Teacher-Student Relationships	.931	1								
3.Respect for Diversity	.908	.804	1							
4.Clarity of Rules	.859	.699	.638**	1						
5. Physical Victimization	-.187	-.205	-.182	-.115	1					
6. Verbal Victimization	**	**	**	**						
7. Relational Victimization	-.159	-.171	-.144	-.112	.744	.745	1			
8. Cyber Victimization	-.202	-.212	-.204	-.126	.632	.567	.685	1		
9. Popularity Score	-.025	-.024	-.020	-.025	-.201	-.251	-.279	-.194	1	
10. Adjustment Difficulties	-.007	-.029	.002	.009	.416	.438	.507	.361	-.167	1
Mean	4.208	4.135	4.255	4.235	1.144	1.272	1.141	1.120	.000	1.621
SD	.729	834	.822	.771	.436	.568	.451	.511	1.627	.933
n	720	720	720	720	715	715	715	713	734	701

### **Question 1: Do different types of peer victimization predict adjustment difficulties?**

Regression analyses were used to examine the impact of different types of peer victimization (physical, verbal, relational, and cyber) on adjustment difficulties while controlling for gender and grade level (see table 3). Results of the regression analyses revealed that overall peer victimization predicted adjustment difficulties ( $R^2 = .283$ ,  $F(7, 691) = 38.869$ ,  $p < .001$ ). Further examining the types revealed that verbal ( $\beta = .127$ ,  $t(698) = 2.418$ ,  $p = .016$ ) and relational ( $\beta = .447$ ,  $t(698) = 6.430$ ,  $p < .001$ ) peer victimization significantly predicted adjustment difficulties while physical ( $\beta = .069$ ,  $t(698) = 1.013$ ,  $p = .312$ ) and cyber victimization did not ( $\beta = .017$ ,  $t(698) = .255$ ,  $p = .799$ ).

**Table 3.** *Peer Victimization Predicting Adjustment Difficulties*

	Unstandardized $\beta$	Standard Error	$t$	$p$
Constant	1.007	.473	2.130	.033
Physical	.069	.068	1.013	.312
Verbal	.127	.053	2.418	.016
Relational	.446	.069	6.430	<.001
Cyber	.017	.066	.255	.799
Gender (boy)	.166	.063	2.655	.008
Grade level	-.088	.061	-1.453	.147

### **Question 2: Does school climate predict adjustment difficulties?**

Regression analyses were used to examine the impact of school climate (all three types-teacher student relationships, respect for diversity, and clarity of expectations) on adjustment difficulties while controlling for gender and grade level (see table 4). Results of the regression analyses revealed that overall school climate did not predict adjustment difficulties ( $R^2 = .009$ ,  $F(5, 683) = 1.178, p = .318$ ). The school climate subscales also did not significantly predict adjustment difficulties: teacher-student relationships ( $\beta = -.129, t (688) = -1.578, p = .115$ ), respect for diversity ( $\beta = .059, t (688) = .806, p = .421$ ), and clarity of expectations ( $\beta = .058, t (688) = .874, p = .382$ ).

**Table 4.** *School Climate Predicting Adjustment Difficulties*

	Unstandardized $\beta$	Standard Error	<i>t</i>	<i>p</i>
Constant	2.237	.610	3.665	<.001
Teacher–Student Relationships	-.124	.079	-1.578	.115
Respect for Diversity	.059	.073	.806	.421
Clarity of Expectations	.058	.066	.874	.382
Gender (boy)	.087	.072	1.219	.223
Grade level	-.098	.072	-1.358	.175

**Question 3: Does peer preference predict adjustment difficulties?**

A regression analysis was used to examine the impact of peer preference (as measured by popularity score) on adjustment difficulties while controlling for gender and grade level (see table 5). Results of the regression analysis revealed that popularity score significantly predicted adjustment difficulties ( $R^2 = .035$ ,  $F(3, 697) = 8.423$ ,  $p <.001$ ;  $\beta = -.101$ ,  $t (700) = -4.669$ ,  $p <.001$ ).

**Table 5.** *Peer preference Predicting Adjustment Difficulties*

	Unstandardized $\beta$	Standard Error	$t$	$p$
Constant	2.218	.532	4.170	<.001
Popularity Score	-.101	.022	-4.669	<.001
Gender (boy)	.119	.070	1.690	.091
Grade level	-.103	.070	-1.482	.139

**Question 4: Does positive school climate moderate the relation between different types of peer victimization and adjustment difficulties?**

Hierarchical linear regression was used to test the moderation effect. To avoid multicollinearity, I first mean centered all four types of peer victimization and school climate. The main effects were first entered into the regression model. Then the interaction terms for school climate and all four different types of peer victimization (physical, verbal, relational, and cyber) were created and entered into the regression model. A significant interaction term indicated that a moderation effect exists (see table 6).

Results showed significant main effects for school climate, verbal victimization, and relational victimization, but not physical and cyber victimization. After adding the interaction terms to the model, the interaction terms only accounted for a small increased variance in adjustment difficulties ( $\Delta R^2 = 0.009$ ,  $\Delta F(4, 677) = 2.167, p=.071$ ). Only the interaction effect of school climate and relational victimization was found to be significant ( $\beta = .460$   $t(677)= 6.130, p <.001$ ). Thus, school climate is a significant moderator of the relation between relational victimization and adjustment difficulties.

Simple slope analysis was used to explore the nature of the significant interaction further. When the school climate was more positive (1 SD above the mean), the relation between relational victimization and adjustment difficulties was significant ( $b= .715, p <.001$ ). Furthermore, when school climate was less positive (1 SD below the mean), the relation between relational victimization and adjustment difficulties was also statistically significant ( $b= .513, p = <.001$ ). Results suggest that positive school climate is not a buffer but instead intensifies the relation between victimization and adjustment difficulties (see figure 3).

To further examine the unique relation between each victimization, school climate, and adjustment difficulties, we also ran the moderation analysis separately for each type of victimization. The results showed significant interaction between physical, relational, and cybervictimization, but not verbal victimization (see tables 7,8, 9, and 10).

Additionally, a similar method was used to examine whether the three subscales of school climate (teacher-student relationships, respect for diversity, clarity of expectations) moderates the relation between different types of victimization and adjustment difficulties. Separate models were run for each type of school climate subscale (see tables 11, 12, and 13). Results showed significant main effects for student-teacher relationships, respect for diversity, clarity of expectations, verbal victimization and relational victimization. After adding the interaction terms to each of the model, student-teacher relationships ( $\Delta R^2 = 0.012$ ,  $\Delta F(4, 677) = 2.787 p=.026$ ) and respect for diversity ( $\Delta R^2 = 0.011$ ,  $\Delta F(4, 677) = 2.554 p=.038$ ) accounted for increased variance in adjustment difficulties while clarity of expectations did not ( $\Delta R^2 = 0.004$ ,  $\Delta F(4, 677) = 1.052 p=.379$ ). The interaction effect of student-teacher relationships and relational victimization ( $\beta = .235$ ,  $t (677)= 2.901, p = .004$ ) and respect for diversity and relational victimization ( $\beta = .204$ ,  $t (677)= 2.564, p = .011$ ) was found to be significant. Thus, the school climate subscales of student-teacher relationships and respect for diversity are significant moderators of the relation between relational victimization and adjustment difficulties.

Simple slope analysis was used to explore the nature of the significant interactions further. When student-teacher relationships was more positive (1 SD above the mean), the relation between relational victimization and adjustment difficulties was significant ( $b= .728, p <.001$ ). Furthermore, when school climate was less positive (1 SD below the mean), the relation between relational victimization and adjustment difficulties was also statistically

significant ( $b = .506, p = <.001$ ). Results suggest that better student-teacher relationships is not a buffer but instead intensifies the relation between victimization and adjustment difficulties (see figure 4).

In addition, when respect for diversity was more positive (1 SD above the mean), the relation between relational victimization and adjustment difficulties was significant ( $b = .699, p < .001$ ). Furthermore, when respect for diversity was less positive (1 SD below the mean), the relation between relational victimization and adjustment difficulties was also statistically significant ( $b = .524, p = <.001$ ). Results suggest that higher respect for diversity is not a buffer but instead intensifies the relation between victimization and adjustment difficulties (see figure 5).

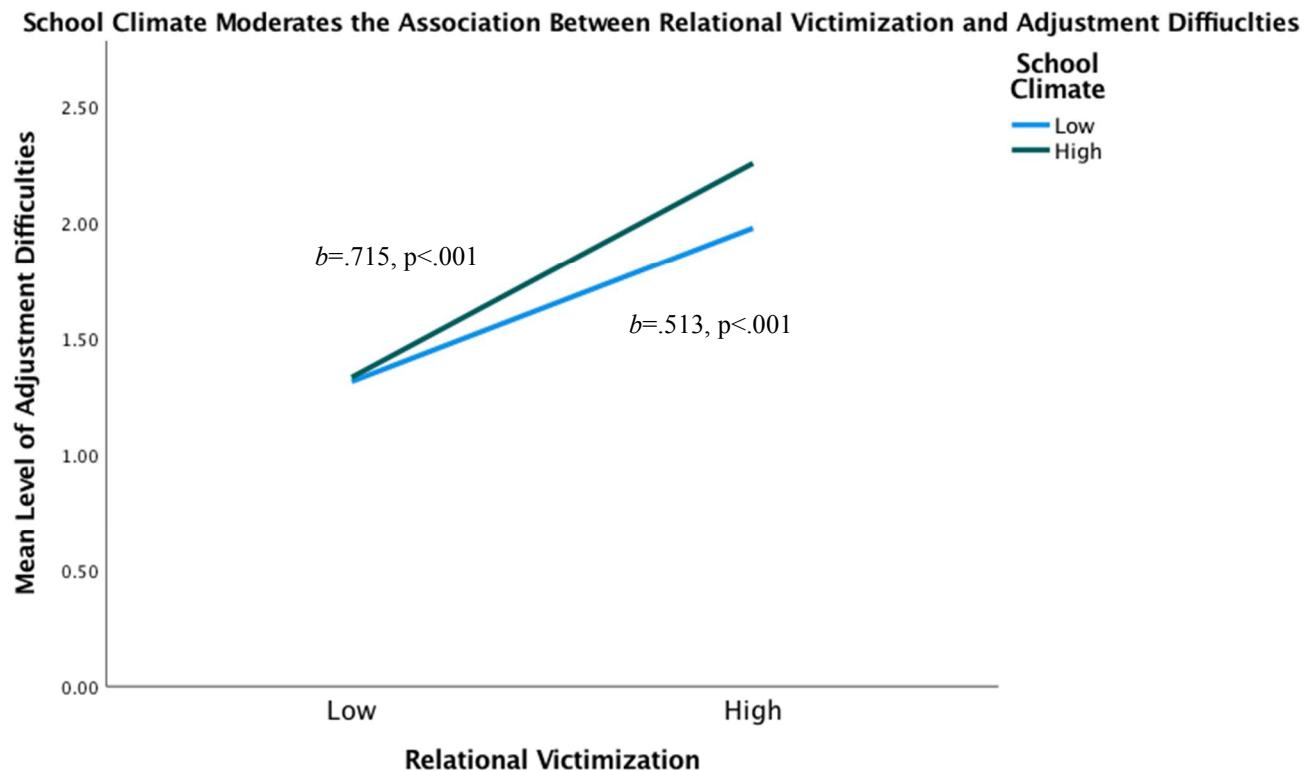
**Table 6.** School Climate Moderation Relations between Victimization and Adjustment*Difficulties*

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.619(.030)***		1.625(.031)***	
School climate	.110(.043)**	.086**	.103(.043)*	.081*
Physical Victimization	.044(.067)	.035	.039(.068)	.032
Verbal Victimization	.128(.053) *	.125*	.123(.053) *	.120*
Relational Victimization	.469(.070)***	.392***	.439(.071)***	.367***
Cyber Victimization	.036(.067)	.025	.085(.070)	.059
School				
Climate*Physical Victimization	—	—	.039(.082)	.026
School Climate* Verbal Victimization	—	—	-.091(.074)	-.068
School				
Climate*Relational Victimization	—	—	.224(.093)*	.146*
School				
Climate*Cyber Victimization	—	—	-.061(.089)	-.036
F(df)	53.007 (5, 681)***		30.613 (9, 677)***	
R <sup>2</sup>	.280		.289	
$\Delta R^2$			.009	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Figure 3.** Interaction between School Climate and Relational Victimization on Adjustment

*Difficulties*



**Table 7.** School Climate Moderation Physical Victimization and Adjustment Difficulties

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.616(.032)***		1.627(.033)***	
School climate	.097(.045)*	.076*	.086(.045)	.067
Physical Victimization	.533(.043)***	.433***	.540(.043)***	.439***
School Climate*Physical Victimization	—	—	.109(.053)*	.072*
F(df)	75.718 (2, 684)***		52.153 (3, 683)***	
R <sup>2</sup>	.181		.186	
$\Delta R^2$			.005	

**Table 8.** School Climate Moderation Verbal Victimization and Adjustment Difficulties

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.616(.032)***		1.625(.032)***	
School climate	.094(.045)*	.073*	.085(.045)	.066
Verbal Victimization	.455(.035)***	.449***	.457(.035)***	.451***
School Climate*Verbal Victimization	—	—	.069(.046)	.052
F(df)	58.471 (2, 685)***		39.518 (3, 684)***	
R <sup>2</sup>	.195		.198	
$\Delta R^2$			.003	

**Table 9.** School Climate Moderation Relational Victimization and Adjustment Difficulties

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.616(.031)***		1.629(.031)***	
School climate	.097(.042)*	.076*	.081(.043)	.064
Relational Victimization	.614(.039)***	.521***	.615(.039)***	.521***
School Climate*Relational Victimization	—	—	.139(.049)**	.093**
F(df)	79.237 (2, 685)***		54.507 (3, 684)***	
R <sup>2</sup>	.265		.273	
$\Delta R^2$			.008	

**Table 10.** *School Climate Moderation Cybervictimization and Adjustment Difficulties*

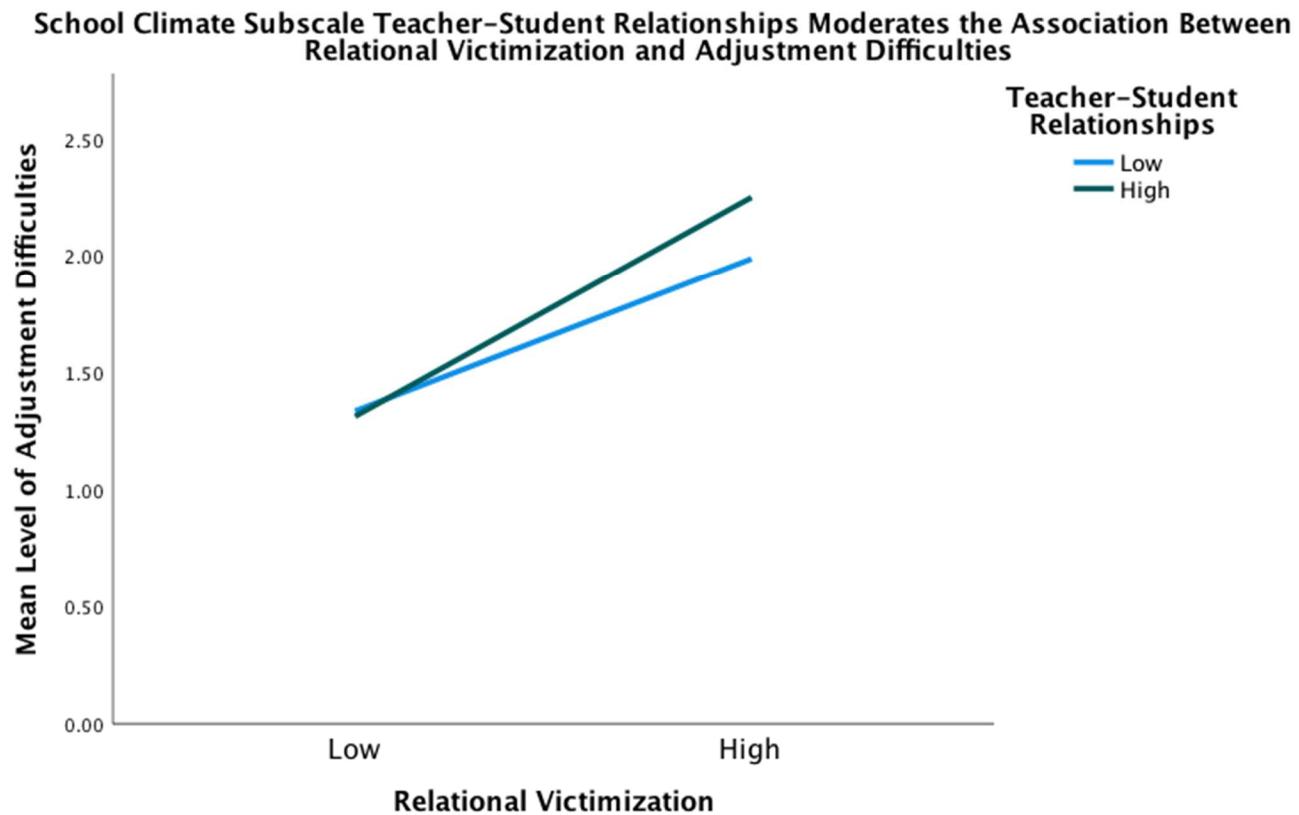
	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.615(.033)***		1.627(.034)***	
School climate	.089(.046)	.070	.081(.046)	.063
Cyber Victimization	.552(.052)***	.382***	.581(.054)***	.402***
School Climate*Cyber Victimization	—	—	.126(.064)*	.073*
F(df)	42.089 (2, 686)***		29.035 (3, 685)***	
R <sup>2</sup>	.140		.145	
$\Delta R^2$			.005	

**Table 11.** School Climate Subscale Teacher-Student Relationships Moderation Victimization and Adjustment Difficulties

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.619(.030)***		1.626(.031)***	
Teacher-Student Relationships	.082(.038)*	.073*	.074(.038)	.066
Physical Victimization	.044(.068)	.036	.034(.068)	.028
Verbal Victimization	.126(.053) *	.123*	.122(.053)**	.120**
Relational Victimization	.470(.070)***	.393***	.443(.070)***	.371***
Cyber Victimization	.034(.067)	.023	.084(.070)	.058
Teacher-Student Relationships	—	—	-.030(.069)	-.023
*Physical Victimization	—	—	—	—
Teacher-Student Relationships *	—	—	-.040(.061)	-.034
Verbal Victimization	—	—	—	—
Teacher-Student Relationships	—	—	.235(.081)*	.177*
*Relational Victimization	—	—	—	—
Teacher-Student Relationships	—	—	-.072(.074)	-.049
*Cyber Victimization	—	—	—	—
F(df)	52.491 (5, 681)***		30.706 (9, 677)***	
R <sup>2</sup>	.278		.290	
$\Delta R^2$			.012	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Figure 4.** Interaction between School Climate Subscale Teacher- Student Relationships and Relational Victimization on Adjustment Difficulties

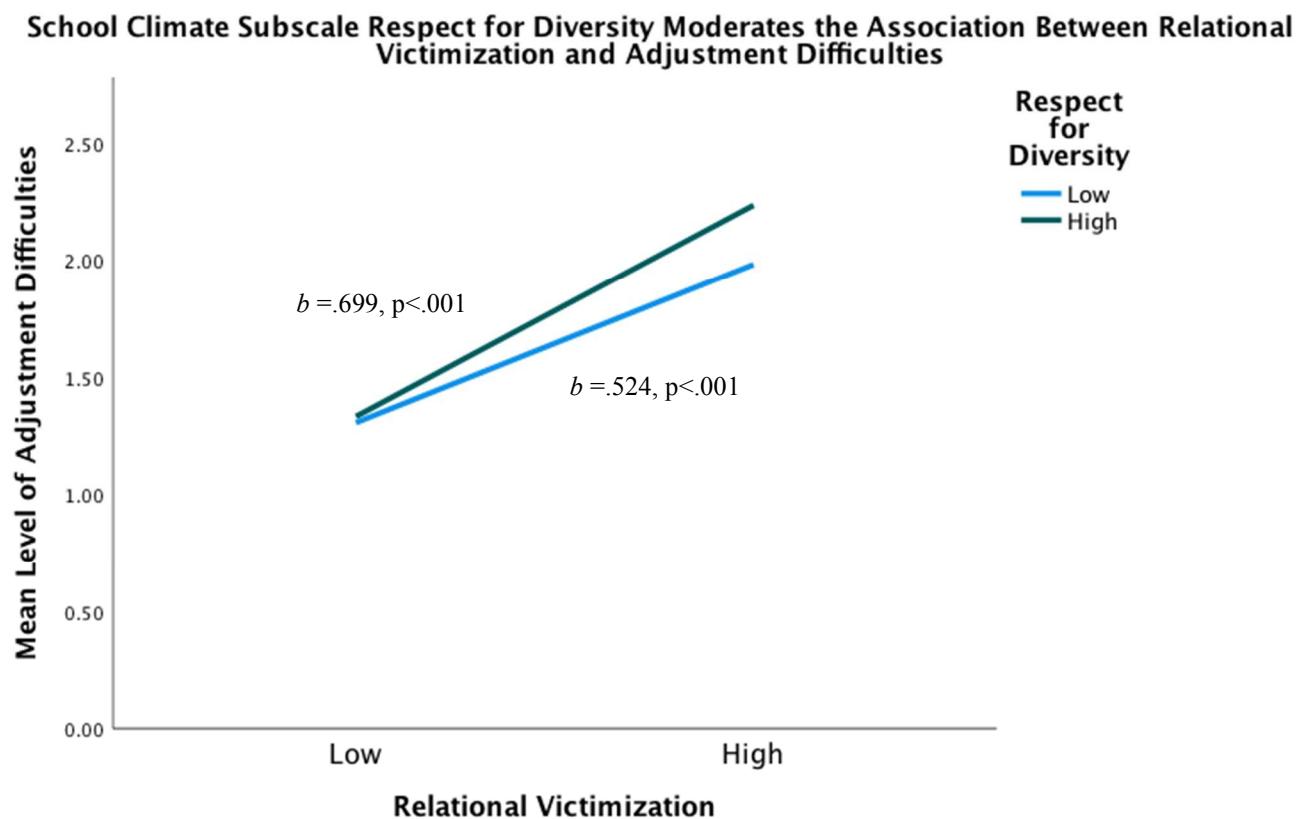


**Table 12.** *School Climate Subscale Respect for Diversity Moderation Victimization and Adjustment Difficulties*

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.619(.030)***		1.623(.031)***	
Respect for Diversity	.102(.038)**	.090**	.098(.038)*	.087*
Physical Victimization	.044(.067)	.036	.028(.068)	.023
Verbal Victimization	.129(.053)*	.126*	.118(.053) *	.115*
Relational Victimization	.465(.070)***	.389***	.459(.071)***	.384***
Cyber Victimization	.040(.067)	.028	.092(.070)	.063
Respect for Diversity				
*Physical Victimization	—	—	.011(.073)	.008
Respect for Diversity				
* Verbal Victimization	—	—	-.117(.068)	-.099
Victimization				
Respect for Diversity				
*Relational Victimization	—	—	.204(.080)*	.157*
Respect for Diversity				
*Cyber Victimization	—	—	-.009(.078)	-.006
F(df)	53.179 (5, 681)***		30.949 (9, 677)***	
R <sup>2</sup>	.281		.291	
$\Delta R^2$			.010	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Figure 5.** Interaction between School Climate Subscale Respect for Diversity and Relational Victimization on Adjustment Difficulties



**Table 13.** *School Climate Subscale Clarity of Expectations Moderation Victimization and Adjustment Difficulties*

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.619(.030)***		1.623(.031)***	
Clarity of Expectations	.079(.040)*	.066*	.080(.040)*	.066*
Physical Victimization	.036(.067)	.029	.038(.067)	.031
Verbal Victimization	.125(.054)*	.123*	.129(.054)*	.126*
Relational Victimization	.475(.070)***	.397***	.449(.072)***	.376***
Cyber Victimization	.025(.067)	.017	.046(.069)	.032
Clarity of Expectations	—	—	.122(.080)	.082
*Physical Victimization	—	—	-.064(.072)	-.048
Clarity of Expectations *	—	—	—	—
Verbal Victimization	—	—	—	—
Clarity of Expectations	—	—	.084(.095)	.053
*Relational Victimization	—	—	—	—
Clarity of Expectations *Cyber Victimization	—	—	-.068(.091)	-.039
F(df)	52.278 (5, 681)***		29.520 (9, 677)***	
R <sup>2</sup>	.277		.282	
$\Delta R^2$			.005	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Question 5: Does peer preference moderate the relation between different types of victimization and adjustment difficulties?**

A similar method was used to examine whether popularity moderates the relation between different types of victimization and adjustment difficulties. Again, results showed significant main effects for verbal victimization and relational victimization. After adding the interaction terms to the model, the model did not account for any increased variance in adjustment difficulties ( $\Delta R^2 = 0.003$ ,  $\Delta F(4, 689) = .614 p=.652$ ), and none of the interaction terms were significant (see table14). Based on these results, peer preference, as measured by popularity score, did not buffer the effect of peer victimization (all four types) on adjustment difficulties.

**Table 14.** Peer Preference Moderation Victimization and Adjustment Difficulties

	Main effect model		Interaction model	
	b(SE)	$\beta$	b(SE)	$\beta$
Constant	1.620(.030)***		1.617(.031)***	
Popularity Score	-.017(.020)	-.030	-.017(.020)	-.029
Physical Victimization	.034(.067)	.028	.063(.070)	.052
Verbal Victimization	.124(.053) *	.122*	.117(.054) *	.115*
Relational Victimization	.464(.069)***	.389***	.460(.075)***	.385***
Cyber Victimization	.011(.066)	.007	-.010(.072)	-.007
Popularity Score*Physical Victimization	—	—	.053(.036)	.086
Popularity Score* Verbal Victimization	—	—	-.030(.030)	-.054
Popularity Score*Relational Victimization	—	—	-.002(.033)	-.004
Popularity Score*Cyber Victimization	—	—	-.024(.036)	-.036
F(df)	51.803 (5, 693)***		28.988 (9, 689)***	
R <sup>2</sup>	.272		.275	
$\Delta R^2$			.003	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Chapter 5: Discussion

Overall, this current study contributes to the literature by closely examining the different types of victimization on adjustment difficulties, and how school climate and peer preference could moderate the relation between these different types of victimization and psychosocial adjustment. Furthermore, it fills a gap in the literature by focusing on middle school students in China because few research has examined the relations between different types of victimization, school climate, peer preference, and adjustment difficulties among Chinese middle school students.

### **Peer Victimization Predicts Adjustment Difficulties**

As hypothesized, peer victimization did predict adjustment difficulties such that a higher rate of victimization was associated with more adjustment difficulties. This was true when each victimization was entered into the regression separately. When all four types of victimization were entered into regression together, only relational and verbal victimization predicted adjustment difficulties. This result suggests that when different types of victimization were considered together, relational and verbal victimization were more associated with detrimental outcomes for Chinese middle school students.

The finding that peer victimization significantly predicted adjustment difficulties aligns with research conducted in both Western countries (Kaltiala et al., 2000; Kumpulainen & Rasanen, 2000; Baldry, 2004; Fisher et al., 2016; Kowalski et al., 2014) and China (Chang et al., 2010; Zhang et al., 2019; Peng et al., 2019, Li et al., 2019; Chu et al., 2018) in that peer victimization positively predicted adjustment difficulties. The finding that relational and verbal victimization specifically predicts more adjustment difficulties when all four types of victimization were included in the model showed that certain types of victimization may have a

greater impact on Chinese adolescents than others. In addition, our results suggested that students were more likely to experience verbal victimization (30%), than physical victimization (21.4%) and relational victimization (21.2%), and they are least likely to experience cyber victimization (14.2%). Physical victimization may be less detrimental and prevalent than verbal victimization in Chinese schools because social harmony is strongly encouraged at school and teachers may be more likely to intervene during incidents of physical aggression than other types of aggression. Cyberbullying may be less prevalent compared with other types of bullying because access to social media is less prevalent in middle schools in China compared with the U.S. As a result, verbal and relational types of bullying may be more detrimental because they target students' social relationships. This study fills a gap in the literature by examining the relation between different types of peer victimization and adjustment difficulties in Chinese middle school students, since few research has focused on this population or compared the effect of different types of peer victimization or school climate factors.

### **School Climate Not A Significant Predictor of Adjustment Difficulties**

Contrary to what was hypothesized, none of the three types of school climate: teacher-student relationships, respect for diversity, and clarity of expectations, was a significant predictor of adjustment difficulties. This is a surprising finding, as most literature suggests the opposite. But this finding is consistent with a study conducted by Loukas & Murphy (2007), who found that perceived quality of school climate didn't play a salient role in adolescent depressive symptoms.

The finding that school climate was not a significant predictor of adjustment difficulties could be due to several reasons. First, school climate in this study was measured by having individual students respond to questions and data were not aggregated at the school level.

Although the perception of individuals are important, the results may have been different if school climate were measured at a school level, as school climate represents the overall quality in a school (Cohen et al., 2009).

Second, school climate is only one of many variables that could affect adjustment difficulties in Chinese middle school students. According to Bronfenbrenner's PPCT theory, context is a component that can influence an individuals' development. This may include settings such as the child's home, peer group, school, or daycare and the interpersonal relations and activities within those environments. School climate is one such context, however, this study only looked at the relationships between teachers and students, the clarity of rules, and respect for diversity. It is possible that these three types didn't capture everything. For example, relationships between peers may be another factor, or perceptions of school safety may also impact adjustment difficulties. Furthermore, other individual level factors, such as temperament, social support, family level factors, or coping strategies may also affect adjustment difficulties. In addition, different from prior research on depression and anxiety, our adjustment measure is a narrow/ specific measure on adjustment difficulties related to bullying.

Even though this study found that school climate was not a significant predictor of adjustment difficulties, it contributes to the literature by closely examining the relation between three types of school climate and adjustment difficulties in Chinese middle school students, which few research has focused on. The fact that the 3 types of school climate (teacher-student relationships, respect for diversity, and clarity of expectations) examined in this study did not significantly predict adjustment difficulties shows that there are additional factors that may affect this relation in Chinese middle school students. Future research could investigate other types of

school climate, such as student-student relations, student engagement, and school safety, in addition to the individual level factors mentioned previously.

### **Peer Preference Predicts Adjustment Difficulties**

As hypothesized, peer preference predicted adjustment difficulties such that a higher preference score was associated with less adjustment difficulties. This finding is similar to research conducted in Western countries that youth who are perceived as unpopular by their peers are at a greater risk of being victimized and experience adjustment difficulties whereas youth who are popular may experience less adjustment difficulties because they may have support from their peers (Rubin et al., 2009; Gorman et al., 2011; Sentse et al., 2015).

Much less research has been done on the relationship between peer preference and adjustment difficulties in Chinese adolescents. Therefore, this study contributes to the literature because it closely examines how popularity can affect adjustment difficulties in Chinese middle school students. Results from this study suggest that similar to Western countries, students who are popular and preferred by classmates experience less adjustment difficulties than those who are not as popular.

### **School Climate as a Significant Moderator**

Contrary to what was hypothesized, hypothesis 4 was only partially supported. School climate was a significant moderator of the relation between peer victimization and adjustment difficulties, but only for relational victimization. Specifically, school climate did not buffer the relation between relational victimization and adjustment difficulties but rather exacerbated it. When there was a more positive school climate (one SD above the mean), the relation between relational victimization and adjustment difficulties was more positive compared with when there was a more negative school climate.

Although this result seems contrary to what is expected, it is consistent with two studies that found the similar effect (Yang et al., 2018; Wang et al., 2021). In the Yang et al. (2018) study, the researchers found that school level school climate exacerbated the negative relationship between victimization and academic engagement such that when there was a more positive school climate there was less academic engagement. In the Wang et al. (2021) study, the researchers found a similarly unexpected moderation effect in that adult social support at the school level intensified the relationship between victimization and suicidal thoughts and behaviors. In other words, in schools with more adult support, students reported more suicidal thoughts and behaviors and were more negatively affected by peer victimization than in schools with less adult support.

This unexpected moderation effect can be explained by the healthy context paradox phenomenon (Salmivalli, 2018). This phenomenon states that those who experience peer victimization in environments where there are low levels of victimization may have more adjustment difficulties. This is because in classrooms where there is less victimization (i.e. healthy environments), students may blame themselves for the victimization (thinking the victimization is their fault) and experience more mental health difficulties (Graham et al., 2009).

In the current study, good teacher-student relationships, more respect for diversity, and clear rules were indications of positive school climate. It is possible that in schools where the students view the climate as positive, those who are victimized may feel increased loneliness and self blame. This is because the victims think “why me” and blame themselves since their experience is different between their peers and themselves (Wang et al., 2021).

Therefore, even though this finding was contrary to expectations, it contributes to the literature because it is the first to examine this phenomenon in Chinese middle school students.

The results suggest that Chinese middle school students who experience relational victimization in a positive school climate may perceive the environment differently than their peers and have more adjustment difficulties. Future research could investigate this difference and examine individual factors such as temperament, social support, family level factors, or coping strategies, that may contribute to this difference in perception.

Furthermore, it is worth discussing that even though school climate was not a moderator for the other types of victimization (physical, verbal, cyber) and adjustment difficulties there are several reasons to explain why this might be the case. First, it is possible that relational victimization has a greater impact on adolescents than other forms of victimization. This is because during adolescence the importance of peer relationships increases and they become more intimate (McElheaney et al., 2008). Since relational victimization damages a peer's relationships through exclusion or breaking friendships (Monks & Smith, 2006), it can affect adolescents greatly as it isolates them from their peers and they can experience adjustment difficulties as a result. The effect could be even stronger in a positive school climate, where victimization is unexpected and leaves the adolescent feeling like it is their fault.

Second, it could be due to the Chinese culture. For example, in a Chinese context there is an increased cultural emphasis on respect for authority (such as teachers), maintaining social harmony, and self-regulation. There is also a low cultural tolerance for aggression (Jia et al., 2009; Chen & French, 2008). Schools can help transmit these values of social harmony, self regulation, and respect for teachers. Therefore, physical victimization would be looked down upon and occur less frequently because it violates the cultural norms in China. Verbal victimization would also be less frequent because it is more overt and could be viewed as a form of aggression. However, relational aggression is more covert, and can be harder to catch.

Therefore, when relational victimization occurs it can be damaging since it disrupts the social harmony. This impact could be even greater in a positive school climate where the victimization is unexpected, and the student feels like it is their fault they are being victimized.

Overall, the findings from this study contribute to the literature since it closely examines how school climate can moderate the relation between four forms of victimization (physical, verbal, relational, and cyber) and adjustment difficulties in Chinese middle school students.

### **Peer Preference Not A Significant Moderator**

Although previous studies have examined how peer preference can be a moderator between victimization and adjustment (Long et al, 2019; Swisky & Xie, 2021), such studies only focus on one or two types of victimization. This study contributes to the literature because it is the first to closely examine whether or not peer preference can moderate the relationship between four types of victimization (physical, verbal, relational, and cyber) and adjustment difficulties in Chinese middle school students.

Contrary to our hypothesis, peer preference was not a significant moderator of the relation between the different types of victimization (physical, verbal, relational, cyber) and adjustment difficulties. Although peer preference was not a moderator, there are several reasons to explain this. First, it could be due to the measure used. In this study, peers were invited to name three classmates they want to play with the most, and three classmates they want to play with the least. Based on the rating, we calculated the popularity status. However, it is possible that how adolescents perceive their own popularity can play a role. For example, adolescents could perceive themselves to be accepted and socially adjusted despite not having a high popularity or selected as being liked by other classmates. It is possible that because these adolescents perceive themselves to be popular they would not report that many adjustment

difficulties. This is consistent with McElhaney et. al (2008) who found that adolescents who felt positively about their own social standing or saw themselves as fitting in fared well over time, regardless of their level of sociometric popularity.

Second, there may be other peer related factors, such as peer support and social status, that moderates the relationship between victimization and adjustment difficulties rather than peer preference. Peer support involves receiving help from friends or peers (Casper & Card, 2017). Those who have a lot of peer support are more likely to be able to cope with a victimization experience (Litwack et al. 2012 ; Schmidt & Bagwell, 2007) and may have less adjustment difficulties than those who have less peer support. This means that a peer who has more support from others (like a few good friends) may have less adjustment difficulties regardless of popularity.

Social status refers to an individual's peer perceived status in the social hierarchy. If an individual has high social status that means they have power, dominance, and influence over others (Cillessen & Rose, 2005). It is a reputation based measure and is reported by peers by items such as, "This person is really cool. Just about every person in school knows this person" (Swirksy & Xie, 2021). However, those with high social status (or who are known by many peers) may not be popular, or liked by their peers (Prinstein & Cillessen, 2003). Hence, social status is different from popularity. Furthermore, even though peers with high social status may not be popular due to their social power they are still viewed as leaders within their peer group. Therefore, peers who have high social status are not likely to be victimized due to fear of retaliation (Cillessen & Rose, 2005). This means high social status could moderate the relationship between victimization and adjustment difficulties instead of popularity. Future

research should examine the different peer-related factors more closely and how they impact the relationship between victimization and adjustment difficulties.

### **Study Limitations and Future Direction**

This study had several limitations related to its measures and design. First, survey measures pertaining to peer victimization, school climate, and adjustment difficulties were all self-report. Given that self-report is subject to biases (e.g., social desirability), it is possible that the students may under estimate their experience of victimization and adjustment difficulties. Future studies should collect multiple measures of behavior (parent, teacher, and self-report) in order to obtain more accurate measures of victimization, school climate, and adjustment difficulties.

Second, data were collected from only two middle schools in Beijing, China. Since China is a very diverse country with multiple cities and provinces, it is possible that the findings from this study may not be generalizable to schools with different demographics (e.g., rural areas). Classroom/school effects were also not controlled. Therefore, there may have been within as well as between school effects. Future studies should collect data from more schools in different provinces. While students were nested in the classrooms and schools, we did not conduct Hierarchical Linear Modeling (HLM) to control for the nestedness of the data. Future studies should collect data from more schools and use HLM to examine the impact of school-level school climate on adjustment.

Another limitation pertains to the measurements used. In this study only three type of school climate (teacher-student relationships, clarity of rules, and respect for diversity) were investigated. School climate is a broad concept and contains many other types, such as student-student relationships, engagement, and safety. Future studies should investigate other types of

school climate as well. Furthermore, for this study, 4 items were used to assess cybervictimization in the peer victimization scale. Although those 4 questions covered general behaviors that are considered cyberbullying (posting bad things on social media, sending hurtful and mean messages, and excluding others in online chat rooms), it didn't cover all types. Future studies should include questions that cover more forms of cyberbullying, such as cyberstalking, masquerading, and outing (Willard 2006; Willard 2007).

Third, adjustment difficulties were measured with 6 items that addressed emotional and social maladjustment. Emotional maladjustment included questions that asked whether the student felt bad or sad, whether they felt sick, and whether they had difficulty learning whereas social maladjustment included questions that asked whether the student had problems with their family, whether they couldn't make friends, and whether they didn't come to school. Although these items captured emotional and social maladjustment broadly, it is not a general adjustment measure and focuses solely on how individuals think and feel after a bullying incident. This could impact the results because it is expected to a degree for students to feel maladjusted after a bullying incident. Future studies may want to consider using a general adjustment measure and looking at specific types of emotional and social maladjustment such as depression or anxiety. Future studies may also want to investigate externalizing behaviors, such as aggression and defiance.

Lastly, this study utilized a cross sectional design. Therefore, the relations here are only correlational and impacts the interpretation of the direction of the results. It is difficult to tease apart if peer victimization leads to adjustment difficulties or if adjustment difficulties leads to peer victimization.

## Implications and Conclusion

Results from this study have several important implications. First, it suggests that Chinese middle school students who are victimized relationally and verbally by their peers experienced more adjustment difficulties. Therefore, it is important for middle schools to identify programs to decrease victimization in order to prevent adjustment difficulties. Teachers and staff can educate students about what bullying is and how to report it if they see it occurring. School leaders and psychologists can implement school-wide bullying prevention and intervention programs, in addition to targeted and individualized instruction to prevent victimization. Furthermore, to aid students with adjustment difficulties school staff could teach students coping strategies and provide resources if they do experience victimization. Schools could provide students with opportunities for positive peer interactions to counteract the effects of the victimization as well, such as pairing students with positive peer mentors.

Second, it shows that peer preference also predicts adjustment difficulties in Chinese middle school students. Students who are rated as more preferred (i.e., well liked by peers) experience less adjustment difficulties than those who are not as preferred. Therefore, it could be beneficial for schools to foster harmony and congenial relationships among peers so that students get along with each other. This might include explicitly teaching respectful behavior and doing group activities that require peers to cooperatively work together. By doing this, students will better be able to treat each other with respect and experience less victimization among each other. Third, positive school climate was negatively related to all types of peer victimization. Therefore, it is important to promote school climate in order to prevent bullying/peer victimization in Chinese middle schools.

Fourth, results showed that a positive school climate exacerbated the relation between victimization and adjustment difficulties instead of serving as a buffer. This unexpected finding could be due to the healthy context paradox, which states that students who experience victimization in schools where the rates of peer victimization are infrequent or decreasing may actually feel worse since it is unexpected (Gini et al., 2019). In classrooms where there is less victimization (i.e. healthy environments), students may blame themselves for the victimization (thinking the victimization is their fault) and experience more mental health difficulties (Graham et al., 2009). As a result, while school-wide bullying prevention is important to reduce bullying at the school level, it is also important to identify individual students who struggle with bullying and provide additional support, especially if there are very few students who experience bullying at a particular school. To help these students, schools could also provide individual or group counseling services for those students to understand that the victimization was not their fault, and teach them strategies to cope with bullying.

Overall, the results of this study confirmed the hypothesis that peer victimization and peer preference will predict adjustment difficulties for middle school students in China. It also showed that a positive school climate served as a moderator for the relation between relational victimization and adjustment difficulties, but not as a buffer, instead intensifying the relation. Although unexpected, it does provide support for the healthy context paradox in Chinese middle schools.

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