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A COMPREHENSIVE INVESTIGATION OF SOCIAL STATUS INSECURITY IN ADOLESCENTS

Yunyi Long
DePaul University, ylong2@depaul.edu

A COMPREHENSIVE INVESTIGATION OF SOCIAL STATUS INSECURITY IN

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YUNYI LONG

Department of Psychology

College of Science and Health

DePaul University

Chicago, Illinois

Dissertation Committee

Yan Li, Ph.D., Chairperson

Kathryn Grant, Ph.D.

Bernadette Sanchez, Ph.D.

Joseph Chen, Ph.D.

Alexandra Novakovic, Ph.D.

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Biography

The author was born in Hunan, China, on April 18, 1990. She graduated from the First High School of Changsha in China in 2008. She received her Bachelor of Science degree in Applied Psychology from Quanzhou Normal University in China in 2012. In 2014 she earned her Master of Arts degree in Psychological Science from DePaul University.

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Abstract

Surrounded by peers who pay increasing attention to social status, adolescents may experience growing concerns about their standing among peers such as feeling that their status being threatened by others or being not as high as they want. These types of social status related concerns are referred to as *social status insecurity* (SSI; Li, Wang, Wang, & Shi, 2010). Although SSI is a relatively new research topic, a few pioneering studies have found the presence of this issue among adolescents in different cultures and have identified some negative impacts of SSI on adolescents' behavioral development, such as increased use of relational aggression (Li et al., 2010; Li & Wright, 2014). Despite this information, SSI has not been fully illuminated in the literature. Given the developmental significance of SSI, it is imperative to further examine this phenomenon, including its specified manifestation among adolescents, its origins, and its effects on adolescents' well-being.

The proposed study aimed to fill these research gaps by validating the representations of SSI through a mixed-method approach, examining the influences of SSI on various developmental outcomes, and probing the antecedent factors of SSI from the parent-child and peer experiences. To this end, in Study One, 134 middle school students were recruited to participate in study one of this research. They reported their SSI, coping strategies, current social status, social behaviors and experiences, attachment to parents and peers, mental and physical health, interpersonal relationships, and academic performance via a series of questionnaires. Findings from this this study elucidated the dimensionalities of SSI, the associations between peer and parental factors and SSI, and the associations between SSI and an assortment of mental, physical, and

social consequences. In addition, in Study Two, 27 randomly selected students from another middle schools were invited to take part in the focus group interviews to discuss how SSI is manifested in adolescents. The findings of the qualitative portion cross-validated the quantitative results and provided narrative details of this social status related cognitive phenomenon.

Taken together, the results of two studies of this project enrich our knowledge and help to build a theoretical framework of SSI. With the comprehensive information on the manifestation of SSI as well as on its antecedent factors and developmental implications, new outlooks could be generated for school psychologists, educators, and parents to address adolescents' SSI and its related developmental difficulties.

Introduction

Developing into adolescence, youths realize the great importance of social status in their lives and are prone to actively pursue higher social status (LaFontana & Cillessen, 2002). Peer status during adolescence primarily presents itself in the forms of popularity and social preference, with the former being more strongly tied to social power and dominance, and the latter usually referring to peer acceptance and likability (Cillessen & Marks, 2011; Parkhurst & Hopmeyer, 1998). Although bearing distinct social profiles, social standings in the form of both popularity and social preference play significantly influential and predictive roles in adolescents' behavioral development, mental adjustments, and personality formation (Mayeux, Houser, & Dyches, 2011). As a result, adolescents who are immersed in a typical peer context are very likely to experience insecure feelings regarding their social status, such as worrying that their standing among peers is threatened by more popular counterparts, that peers may not accept or like them, or that their social status is not as high as they would expect (Li et al., 2010; Li & Wright, 2014). These types of insecure feelings pertinent to social status are referred to as Social Status Insecurity (SSI; Li et al., 2010).

As a newly proposed construct in the literature, SSI has been observed among adolescents in different cultures and has been found to impact adolescents' social behaviors, especially aggressive behavior. Specifically, when adolescents have concerns about their standings in peer groups, they tend to perpetrate physical, verbal, and relational aggression towards others to maintain their social power and relieve such worries (Adler & Adler, 1995; Li et al., 2010; Sandstrom & Herlan, 2007). Likewise, Li and Wright (2014) revealed that if adolescents felt increased SSI and formed a social goal

on higher popularity as a result, their relationally aggressive behavior became more frequent, while prosocial tendencies were lessened.

Despite some initial knowledge and indications regarding adolescents' SSI, there is still plenty of information that awaits to be elucidated in terms of this social status related insecurity. First, only a few empirical studies have formally investigated SSI (e.g., Li et al., 2010; Li & Wright, 2014). In these studies, SSI was measured via only a limited number of quantitative questionnaire items. More details regarding the prevalence, duration, and severity of this issue are unclear in the current body of literature. Second, the present assessment of SSI has measured this construct as a broad, general insecurity in relation to adolescents' peer status, but it has not specified its dimensionalities in popularity and social preference statuses. As these two social statuses demonstrate distinctive social profiles, adolescents' insecurity about them may also vary.

In addition, the implications of SSI on adolescents' development have only been examined in the realm of social behaviors so far. The impacts of SSI on other aspects of adolescents' lives still remain unclear. It is reasonable to propose that SSI may also impact mental and physical health of adolescents and may show effects on their social relationships and academic performance.

Lastly, researchers are uncertain about the social and developmental antecedents of SSI. The existing evidence demonstrates that being a victim of peer aggression often results in adversities in social status (e.g., fewer friends, less social power, and lower peer status) and distrust in relationships, which suggests a potential association between peer victimization and SSI (Berger & Rodkin, 2009; You & Bellmore, 2012). Furthermore, insecure feelings stemmed from peer attachment are expected to serve as an antecedent of

SSI due to its negative influence on youths' social network and social standing among

classmates (Brown & Wright, 2003; Nelis & Rae, 2009). Similarly, the insecurity

regarding attachment to parents may be another source of SSI, as a series of peer status

related problems arise from adolescents' insecure attachment to parents or primary

caregivers (Berger & Rodkin, 2009; Krieg & Dickie, 2013). Taking these potential

precursors together, the negative experiences from adolescents' peer interactions and the

discords in the parent-child and peer-child dynamics are very likely to evoke SSI in

adolescents.

　　　　With the objective of filling these gaps in the current body of literature, this study

aims to investigate adolescents' SSI in a more comprehensive mixed-method approach.

Through the quantitative measurement, an extended questionnaire with clearer

distinctions on general SSI, popularity SSI, and social preference SSI was applied.

Furthermore, a qualitative exploration using focus group interviews was carried out to

learn in-depth about the manifestation, frequency, duration, and reactions about SSI. The

findings from the mixed-method methodology helped cross-validate each other and

provide a holistic view of SSI. Further, the associations between SSI and a series of

developmental outcomes, including social behaviors, adjustment well-being, physical

health, social relationships, and academic competence were examined. Moreover, the

peer and familial origins of SSI, including peer victimization, insecure peer attachment,

and insecure parent-child attachment, were investigated in the proposed study. Taking

these efforts together, a significant amount of information about the manifestations,

precursors, and outcomes of SSI were examined to build a more comprehensive

theoretical model of this important construct in the research of adolescent development.

Beyond examining the direct associations of SSI and developmental outcomes, these associations have also been examined in the context of adolescents' actual attained peer status. In other words, the moderation effects of peer status on the associations between SSI and developmental outcomes were investigated as well.

The introduction is organized in three major sections. The first section introduces SSI as a social cognitive process pertinent to adolescent social standings among peers following the literature review on adolescent social status. In the next section, the implications of SSI on developmental outcomes are discussed, along with a detailed review on the impacts of SSI to social behaviors and the suggested influences on other developmental areas, such as mental and physical health. In the last section, the potential origins of SSI from peer and familial contexts are proposed. In this section, the review is focused on peer victimization and insecure attachment to significant others (e.g., parents or primary caregivers) with the topics of how these factors to be linked to adolescents' SSI.

Social Status Insecurity as a Social Cognitive Process

During adolescence, individuals pay increasing attention to their social status and therefore may encounter intense peer competition for social status (LaFontana & Cillessen, 2002). Immersed in a school environment, where many peers care about their popularity and social preference (i.e., peer liking), adolescents are very likely to be concerned about their current social standing not being high enough or being threatened by other peers. Such a mental process is referred to as *social status insecurity* (SSI; Li et al., 2010; Li & Wright, 2014). SSI as a negative feeling can impact adolescents of any level of peer status. Even for those who have already achieved a relatively high

popularity or social preference status, they may still be affected by SSI due to existing intense peer competition for an even higher social status. Meanwhile, adolescents in lower social position may struggle with the worries of being not popular or liked by peers. As a result, SSI is considered to be a prevalent social cognitive issue among adolescents.

In research on social development, adolescents' social status or standing is conceptualized as having two dimensions: popularity and social preference. According to the well-established definitions of these two facets of peer standing, popularity refers to "status derived from social prestige, social power, or social visibility" (Cillessen & Marks, 2011). On the other hand, social preference is synonymous with likeableness and acceptance, due to the fact that it is usually used to describe individuals who are "widely liked, accepted, or preferred as a friend" (Mayeux et al., 2011; Parkhurst & Hopmeyer, 1998). In terms of how these two statuses manifest in adolescents, social preference encompasses an assortment of positive characteristics, including prosociality, leadership, and agreeableness (Bukowski, Laursen, & Rubin, 2018; Cillessen & Mayeux, 2004). Popularity, on the other hand, is a mixture of both positive and negative components, such as a combination of both prosocial and aggressive attributes (LaFontana & Cillessen, 1998). In middle childhood, the characteristics of these two social positions overlap to a large extent as popularity and social preference are significantly and positively correlated. However, this correlation decreases with age as adolescents are more aware that being popular and being likeable have different significance in their social lives (Cillessen & Mayeux, 2004).

Though possessing separate attributes in socialization, both popularity and social preference statuses exert significant impacts on adolescent social development and well-being. Youths with higher popularity are more able to control their social or material resources during peer interactions and are inclined to display both coercive aggression and prosocial behaviors towards peers in order to promote or protect their popularity (Findley & Ojanen, 2013; Hawley, 2003). The repeatedly revealed association between popularity and aggression has been found to account for the mental health adversities that popular adolescents are suffering from, such as depression and emotional adjustment problems (Rose & Swenson, 2009; Rose, Swenson, & Waller, 2004). Additionally, adolescents with very low popularity are also susceptible to a variety of difficulties, such as both internalizing and externalizing symptoms as well as poor academic performance (Bukowski et al., 2018). Similarly, adolescents with low social preference are usually victimized by peer rejection and neglect, which are closely linked with depression and social withdrawal (Bierman, 1987; Platt, Kadosh, & Lau, 2013). However, adolescents with high social preference are less likely to experience mental health issues. In fact, peer liking could even be a protective factor that buffers against the detrimental influence of peer victimization in the forms of both physical and verbal aggression (Kawabata & Onishi, 2017; Kawabata, Tseng, & Crick, 2014).

Adolescents themselves are often aware of the benefit of high social status and the negative influences incurred by low social status. Therefore, they are prone to pay more attention to their own social position among peers and are willing to reach for higher social status by competing with peers (LaFontana & Cillessen, 2002). As a result, their concerns, worries, and sensitivities regarding social status may increase. In past research,

developmental psychologists have identified that adolescents experience a prevalent

insecure feeling regarding their position among peers. For example, in a longitudinal

observational and interview study on the dynamics of preadolescents' cliques, Adler and

Adler (1995) noticed that the leaders of a peer clique care a lot about adulation and

loyalty from their followers and are vigilant about the presence of more popular peers

because those peers may threaten their current standing. Downey, Lebolt, Rincón, and

Freitas (1998) found that some children held a defensive expectation of acceptance and

rejection in peer situations and thus formulated an insecure cognitive pattern which

integrated fear and doubt about whether others will approve or accept them in social

interactions. They defined these children as rejection-sensitive children. These over-

sensitive children report having more interpersonal difficulties and lower self-evaluation

of peer status compared to their normal counterparts (Downey et al., 1998; Sandstrom &

Herlan, 2007).

Although those earlier studies did shed light on social status insecurity, they

generally focused on children and preadolescents in elementary schools (fourth through

sixth grades) and only examined one aspect of participants' insecurity regarding their

sociometric status (e.g., popularity). Indeed, none of these studies have formally

examined SSI as a comprehensive construct in young adolescents. Extending from the

previous studies in the literature, a few later studies started to use quantitative approaches

to examine SSI as a concrete construct in young adolescents. In the study of Li et al.

(2010), the concept of SSI was first formally studied as a social cognitive process through

three questionnaire items. This study found that SSI was an explanatory mechanism

between Chinese adolescents' cultural values and their exhibition of aggressive behavior,

implying that SSI might affect adolescents' emotional regulation and subsequently elicit their propensity to use aggressive responses to protect their social status (Li et al., 2010). In another study conducted by Li and Wright (2014), six SSI items were extended from the previous literature to measure this insecurity. This study verified the prevalence of SSI among American adolescents and clarified the association between SSI and relational aggression through the mediation of social status goals.

Those pioneer studies have provided valuable insights into the role of SSI in adolescents' behavioral development. However, their investigation about SSI only represents an initial effort in this line of research. Several improvements can be made to enrich our understanding of this concept.

First, the methodology of those preliminary studies relies on the questionnaire-based measures with a limited number of items, and it lacks a qualitative validation of SSI. An in-depth mixed-method examination of SSI is greatly needed to provide details in terms of the manifestations, occurring frequency, duration, reactions, and coping strategies of SSI. Therefore, findings from the qualitative portion of the investigation then cross-validated what researchers have evidenced from empirical studies and prompted an improvement of future SSI measures.

Second, in the current literature, SSI is primarily regarded as an insecure feeling about individuals' social standing in general, without making an explicit distinction of whether the insecure feeling is specifically about popularity status, social preference status, or overall peer standing. Peer status manifested as different forms usually bear different significance to adolescents. For example, as popularity and social preference statuses diverge more and more in adolescence (Cillessen & Mayeux, 2004), SSI may

also be differentiated between the two types of social statuses. However, the distinctions

of SSI subtypes have not yet been fully uncovered in the current literature. As the study

of Long, Zhou, and Li (2020) initially identified popularity-related insecurity for its

mediating role in the associations between peer victimization and adjustment problems, it

is worthwhile to further explore the pervasiveness and implications of the insecurity

regarding popularity as well as other representations of peer status (e.g., social

preference). Taken together, the unexplored features of SSI warrant a comprehensive

validation utilizing both a qualitative methodology and an improved quantitative

measurement regarding the popularity and social preference subtypes of SSI.

Furthermore, to have an in-depth understanding of SSI, it is also beneficial to

identify individual differences in SSI across different demographic variables, such as

gender and ethnicity. There is a scarcity of information in the literature on group

differences in SSI. In the initial explorations of adolescent SSI (i.e., Li et al., 2010; Li &

Wright, 2014; Long & Li, 2020), although gender was treated as a covariate of SSI, little

attention was given to whether SSI showed in varying degrees in boys versus girls. The

literature on adolescent development, however, has featured a pattern of gender

differences in socialization, such that boys are usually cultivated to be more competitive

and dominant, while girls are generally encouraged to be more thoughtful and nurturing

during social interactions (Rose & Rudolph, 2006). In terms of cognitive patterns, boys

are inclined to prioritize popularity in their social goals, whereas girls show higher

endorsement to peers' affectional acceptance while setting goals on social status (Kiefer,

Matthews, Montesino, Arango, & Preece, 2013). Empirical findings imply that, compared

with boys, girls may be more susceptible to SSI as they show greater concern about their

status in the peer network. For instance, girls report higher sensitivity or anxiety upon

being rejected during peer activities (Zimmer-Gembeck, Trevaskis, Nesdale, & Downey,

2014). When faced with negative feedback in experimental scenarios, girls show more

propensity to undervalue their social preference than boys (Sandstrom & Herlan, 2007).

When encountered with conflict in interpersonal relationships, girls experience greater

emotional problems, such as depression, loneliness and helplessness, than boys (Kingery,

Erdley, & Marshall, 2011). Taking such gender differences into consideration, it is

reasonable to extrapolate that girls tend to experience higher levels of concerns and

sensitivities regarding their social standing (i.e., popularity and social preference).

As with gender, there is limited research on ethnic differences in SSI. However,

there is empirical evidence that shows ethnic differences in other social cognitive

processes pertinent to peer status. The tendency of adolescents to prioritize popularity

over other dimensions, such as friendship and academic performance, has been found to

be more common among White youths than their African American and Latino peers

(LaFontana & Cillessen, 2010). However, this ethnic difference in adolescent preference

of social status was found to be small in the study of Dawes and Xie (2017), such that

African American youths held the strongest eagerness to be popular, followed by

Caucasian and finally their Hispanic counterparts. In terms of the social cognitive process

of social acceptance, adolescents in the ethnic majority group generally reported higher

self-esteem about this type of social status than peers who are ethnic minorities

(Verkuyten & Brug, 2001). Given this ethnicity-triggered variation in social perceptions

on peer status, it is predictive that ethnic minority and majority adolescents may

experience SSI at different degrees. Endeavors to clearly detect these ethnic differences

will yield a more accurate description about the prevalence of SSI among diverse

adolescent populations.

Another direction not yet explored in the literature is the examination of the

coping strategies towards SSI. Such examination can provide useful information about

various strategies that adolescents use to deal with problems and crises they face in their

social lives. Research has generally revealed that when adolescents experience stressful

events during development, they usually utilize emotional regulations (e.g., emotional

expression and modulation), adaptive coping (e.g., accepting the problems and seeking

social support), and maladaptive coping (e.g., avoiding and denying problems; Compas et

al., 2017). Similarly, to deal with interpersonal conflict in peer interactions, youths come

up with various strategies to respond, including prosocial problem-solving tendencies and

anti-social behavioral intentions (e.g., threatening to aggress; Clarke, 2006; Pakaslahti,

Karjalainen, & Keltikangas-Järvinen, 2002). These findings provide support for the

assumption that when facing SSI, adolescents also employ both positive and negative

problem-solving tactics to relieve their negative feelings.

Implication of SSI on Developmental Outcomes

Given that SSI is manifested as a series of uncomfortable feelings such as worry,

concern, and sensitivity regarding one's social standing among peers, it may give rise to

negative impacts on adolescent mental and physical well-being as well as school

performance. When experiencing SSI, adolescents need to cognitively process it and

respond to it with behavioral or social strategies. The impacts of SSI on adolescent social

behaviors, including aggression and prosocial behavior, have been initially detected in a

few empirical studies (Li et al., 2010; Li & Wright, 2014). Thus, it is reasonable to

propose that SSI may play an influential role in other developmental aspects, for

example, health and mental health as well as school and interpersonal outcomes.

    SSI and Social Behaviors. When feeling that their social status is threatened or is

not high enough, adolescents may employ behavioral strategies to maintain or promote

their social standing. Earlier studies have evidenced some behavioral reactions and

strategies that adolescents tend to display when they have the feeling of SSI. According

to the observation and interview report from Adler and Adler (1995), when high-

positioned preadolescents need to strengthen their status within the cliques and to relieve

the threats from more popular peers, they usually alienate a certain child from their group

at first and befriend that child afterwards on purpose. Such relationship manipulation

could be regarded as a typical form of relational aggression (Crick & Grotpeter, 1995),

and it seems to be an effective strategy to deal with SSI. In line with this finding, children

who are over-sensitive about their social preference among peers are prone to conduct

more antisocial, disruptive, and confrontational acts at school as reported by teachers and

peers (Downey et al., 1998). Sandstrom and Herlan (2007) noticed that during their

controlled experimental paradigms, when children's egotism on social status was

perceived threatened by the hypothetical scenarios, they consistently demonstrated

aggressive tendencies as retaliations.

    A clear pattern of associations between adolescents' SSI and social behaviors,

particularly relational aggression, has been revealed by more recent empirical studies in

which SSI has been investigated as a concrete social cognitive construct (Li et al., 2010;

Li & Wright, 2014; Long & Li, 2020). Relational aggression is an aggressive behavior

that is purposely used to hurt others' social relationships and peer standing by spreading

malicious gossip, manipulating friendships, isolating peers, or excluding peers from

activities (Crick & Grotpeter, 1995). As relational aggression reflects the control and

manipulation of interpersonal relationships, it is usually utilized by adolescents to

demonstrate their social dominance or to actualize their social goals for popularity

(Dawes & Xie, 2014; Findley & Ojanen, 2013). The study of Li et al. (2010) found that

SSI served as a salient mediator connecting the individualistic orientation and teacher-

reported overt aggression (e.g., physical and verbal aggression) in Chinese adolescents.

This mediating role of SSI suggests that youths who endorse subjective competence and

self-reliance are more likely to feel stress about social status and consequently act

aggressively to deal with such feelings. A similar investigation of American adolescents

further indicated that SSI was positively related to self-reported relational aggression, but

negatively related to self-reported prosocial behaviors. These two relationships were

indirect, both mediated by adolescents' endorsement of popularity goal (Li & Wright,

2014). In addition, the longitudinally positive linkage between social status insecurity and

relationally aggressive behaviors has been reported in a recent study (Long & Li, 2020).

Unlike the bistrategic profile of popular adolescents who use both aggression and

prosocial behaviors (Hawley, 2003), adolescents who experience SSI tend to use more

aggressive and less prosocial strategies.

In summary, the direct and indirect linkages between adolescents' SSI and

prosocial or aggressive behaviors highlight the implications of SSI on behavioral

outcomes. However, some unconsidered points relevant to this topic remain to be

examined, which, if addressed, can potentially enrich our understanding of the connection

between SSI and behavior. For example, considering that adolescents at different levels

of popularity and social preference show different behavioral patterns (Cillessen &

Mayeux, 2004; Hawley, 2003), the associations between SSI and certain behavioral

reactions may be altered by the actual attained peer status of adolescents. Unfortunately,

there is no research so far that has examined this promising assumption. Moreover, most

previous studies treat SSI as a general insecurity and have not articulated whether these

behaviors are more closely tied with popularity status insecurity or social preference

status insecurity. These unaddressed issues call for a more in-depth investigation of

subtypes of SSI and their behavioral consequences while taking adolescents' actual

popularity or social preference into consideration.

SSI and Other Developmental Outcomes. Because SSI is a relatively new

concept in the research realm of social development, limited studies have been conducted

to test how SSI is related to mental health outcomes, such as depression and anxiety. In

addition to destructive behaviors (e.g., aggression), adolescents experiencing SSI may

also be subjected to internalizing problems. Inspired by the research on other forms of

sensitivity and insecurities (e.g., attachment insecurity or emotional insecurity),

reasonable predictions regarding the associations between SSI and adjustment adversities

can be made. Research has shown that after having been manipulated in experimental

settings, which include ambiguous rejections from others, preadolescents who have hyper

sensitivity about their social preference are more distressed compared to counterparts

who are not as perceptive (Downey et al., 1998). Similarly, insecurities have been proven

to be predictors of problematic adjustment. For example, facing interparental conflict,

children and adolescents tend to experience emotional insecurity, which has been found

to relate to adolescents' internalizing and externalizing problems (Cummings & Davies,

2010) and to mediate the relationship between marital discord and adolescents'

maladjustments, such as conduct problems, anxiety, depression, withdrawal, and

delinquency (Davies, Forman, Rasi, & Stevens, 2002; Davies, Hentges, et al., 2016;

Davies, Martin, Coe, & Cummings, 2016). Likewise, attachment insecurity to parents has

been a robust predictor of adolescents' internalizing problems (Brumariu & Kerns, 2010;

Gorrese, 2016). Parent-child attachment insecurity generally refers to instances where

adolescents' affectional bonds with their parents or primary caregivers are preoccupied

by avoidant and ambivalent feelings (Cassidy & Shaver, 2008). In particular, attachment

insecurity is strongly tied to adolescents' anxiety (Gorrese, 2016). Moreover, attachment

insecurity was also found to be as a correlator of youths' depressive symptoms and was a

potential predictor of adolescent suicidality (Sheftall, Schoppe-Sullivan, & Bridge, 2014).

Extrapolating from these studies on the topic of insecurity at large, it is plausible that SSI,

as a specific form of insecurity about one's social standing, could also be a correlate of

adolescents' adjustment adversities. A preliminary empirical investigation conducted by

Long et al. (2020) revealed that the insecurity particularly towards popularity status was

positively linked with depressive symptoms and anxiety among Chinese adolescents. To

extend and broaden this line of research, it is reasonable to posit that the insecurity

pertinent to other indications of peer status, such as social preference or general social

status, may also be a significant predictor of adjustment problems. To fill the gap in the

current body of literature by verifying this supposition, it is imperative to examine the

associations between SSI and a variety of maladjustment outcomes, including depression,

anxiety, and social withdrawal.

In addition to mental health outcomes, SSI may also be related to other aspects of adolescents' lives, such as social relationships, physical health, and academic performance. Earlier research has indicated that the SSI phenomenon provides support as to how SSI may adversely affect adolescents' developmental outcomes. Specifically, young adolescents with pessimistic views about social preference and concerns about peer rejection tend to evaluate themselves as less competent in social and academic domains (Downey et al., 1998). In addition, Sandstrom and Herlan (2007) discussed that, when holding a pessimistic perception about their social standing, adolescents were more likely to behave "weirdly" during peer contacts and subsequently undermined their interpersonal quality with classmates over time. Also, substantial evidence implies that the problems in adolescents' social statuses (e.g., low status due to peer rejection or ignorance) are often inseparable from problems in health, including common physical symptoms, poor sleep quality, and obesity (Bradshaw, Kent, Henderson, & Setar, 2017; Lu, Tu, El-Sheikh, & Vaughn, 2016; Sweeting & Hunt, 2014).

Research on emotional insecurity and attachment insecurity also sheds light on the developmental implication of SSI on health, interpersonal relationship quality, and academic performance. For instance, it has been shown that emotional insecurity caused by marital conflict is associated with academic risks through low sleep quality and quantity (El-Sheikh, Buckhalt, Keller, Cummings, & Acebo, 2007). Additionally, mother-child attachment insecurity has been found to longitudinally and negatively relate to academic performance and positively link to school dropout of high school students (Ramsdal, Bergvik, & Wynn, 2015). Individuals experiencing attachment insecurity with parents (i.e., being caught in attachment anxiety and avoidance) are reported to undergo

more interpersonal conflicts with friends and romantic partners from childhood to adulthood, and their coping mechanisms appear to be more maladaptive, containing more hostility and aggression (Mikulincer & Shaver, 2011). Taking these findings together, it is possible to expect that adolescents who have insecurity regarding social status may also experience difficulties in social relationships, academic performance, as well as physical health.

Given that the research on SSI is still at an early stage (e.g., Li et al., 2010; Li & Wright, 2014; Long & Li, 2020), the expected impacts of SSI on diverse developmental outcomes await to be examined. Moreover, the psychological significance of SSI may vary according to adolescents' actual social positions among peers and coping mechanisms in response to their insecure feelings. Adolescents with different levels of popularity and social preference statuses may be differentially susceptible to developmental difficulties in mental health, physical health, social relationships, and academics. For example, adolescents possessing high peer status in peer liking are generally better-adjusted in a wide array of developmental dimensions, such as having a prosocial profile, high-quality friendships, and psychological well-being (Rubin, Bukowski, Parker, & Bowker, 2008). Peer rejection, representing a low status in social preference, has been consistently found to be associated with mental and physical health difficulties, including anxious-withdrawal tendency, loneliness, poor self-esteem, and physical illness (Bowker & Etkin, 2014; Brendgen & Vitaro, 2008). In a review study focused on adolescence peer group identifications, members in higher popularity status groups are more likely to achieve academic success (Sussman, Pokhrel, Ashmore, & Brown, 2007). The influential role of adolescents' actual social statuses suggests that

associations between SSI and its implications on various developmental outcomes may

also be significantly strengthened or weakened by the different actual popularity or social

preference statuses that adolescents attain. Higher status in popularity or social preference

may function as a buffer between SSI and a series of developmental difficulties. Some

recent research shows that for adolescents whose popularity status are low, they are more

likely to suffer from maladjustments when they experience more popularity status

insecurity (Long et al., 2020). Therefore, examining the moderation processes of multiple

indications of peer status would provide useful knowledge to researchers and

professionals to address adolescents' SSI.

Antecedents of SSI

The emerging literature has recognized that SSI is an important social cognitive

process that adolescents experience. It then becomes necessary to understand the

antecedents of SSI. Despite the scarcity of research on this topic, we can extrapolate from

research on other insecurities (e.g., insecurities on parent or peer interactions). For

instance, problematic familial dynamics such as an indifferent parent-child relationship

are potentially responsible for insecure attachment with parents (Cassidy & Shaver,

2008). Adversities in interpersonal relationships could lead to peer attachment insecurity

in youth. Similarly, SSI could also occur as a product of negative experiences from peer

interactions and parent-child relationships.

Peer Victimization and SSI. Peer victimization is commonly observed in

adolescents' interpersonal interactions. It is responsible for a series of adjustment

difficulties among adolescents. For example, preadolescents who were defined by both

peers and themselves as victims of bullying were inclined to show risk characteristics

such as low popularity, low social preference, and less prosocial behavior as reported by

their classmates (Berger & Rodkin, 2009). Victimization by the physical and verbal

aggression of others could also cause children to receive less support from peers and have

fewer friends, especially cross-racial/ethnic friends as reported by teachers (Kawabata &

Crick, 2011). Moreover, the decreased social power manifested as low social preference,

popularity, and physical competence was also a salient outcome of victimization from

school bullying (Rodkin & Berger, 2008). These findings suggest that a loss of social

status is often a result of peer victimization.

Furthermore, it is reasonable to predict that peer victimization may also elicit

adolescents' insecurities regarding their positions among peers. Some research findings

lend support to this argument. For example, research has shown that adolescents reported

less security about best-friendship quality when they experienced relational victimization

(You & Bellmore, 2012). Some preliminary results have shed light on the precursory

impact of peer victimization on adolescence SSI such that both self-reported and peer

nominated relational victimization are positively related to adolescents' general SSI

(Long & Li, 2018). In addition, peer nominated relational victimization has been

positively linked with popularity status insecurity (Long et al., 2020). Another important

and specific component in peer victimization that may contribute to the development of

SSI is the experience of social exclusion. Social exclusion in adolescents usually occurs

in forms of marginalization, isolation, or rejection, which could be regarded as a

representation or type of relational victimization (Plenty & Jonsson, 2017; Rosen, Beron,

& Underwood, 2017; Underwood, 2003). This negative peer experience seriously

threatens adolescents' healthy development as it has been consistently found to coincide

with maladaptive symptoms, school adjustment problems, and emotional dysfunctions in

adolescents (Boivin, Hymel, & Burkowski, 1995; Plenty & Jonsson, 2017; Rosen et al.,

2017). In addition, given the fact that adolescents place high importance on peer

acceptance and positive relations, social exclusion may result in great adversities in their

social status and peer relationships accordingly. Indeed, the experience of being excluded

or distanced from peers is closely linked to peer rejection, friendlessness, and lower

status in the peer hierarchy of children and adolescents (Adler & Adler, 1995; Almquist,

2011; Plenty & Jonsson, 2017). Based on those implications, social exclusion, as a form

of relational victimization, is expected to inflict precariousness in adolescents about their

social status. In summary, extending this line of postulation, a fuller examination on the

association between adolescent peer victimization and different types of SSI will help

researchers achieve a clearer understanding about the detrimental consequences of peer

victimization on adolescent social cognition.

Attachment Insecurity and SSI. Attachment is defined as the strong affection-

based relationships with important people around an individual. Attachment can reflect

the quality of closeness, intensity, and endurance of these relationships (Ainsworth,

1989). Individuals establish this affectional connection with parents or primary caregivers

after birth. With an expanding socialization scope, individuals also gradually build social

bonds with friends and romantic partners. Attachments to both parents and peers show

profound effects on adolescents in the realms of psychological, behavioral, and social

development.

It is hypothesized that attachment insecurity with parents is an important

antecedent that makes adolescents prone to develop SSI. Different parental attachment

types that adolescents form result in different internal working models that guide

adolescents' interpersonal behaviors and emotional expressions (Cassidy & Shaver, 2008;

Colonnesi et al., 2011). Individuals who are securely attached to parents are clear about

their own importance in interpersonal dynamics and are apt to trust other people. In

contrast, children and adolescents with insecure attachment to their parents are likely to

be avoidant in social relationships because they are more likely to believe that others will

reject them and lack confidence that their needs will be satisfied while interacting with

others (Bowlby, 1989; Bretherton, 1991). Accordingly, the long-term impact of parent-

child attachment can be translated into adolescents' social cognition about peer relations

and social networking.

It has been well recognized that insecure parent-child attachment is closely tied to

adversities in peer interactions and peer status. For example, it is negatively linked to

problem solving skills in interpersonal conflict and competence in friendship

maintenance (Sroufe, Carlson, & Shulman, 1993). Likewise, adolescents who reported

having an insecure attachment with parents were less likely to be socially accepted by

their peers (Allen, Porter, McFarland, Marsh, & McElhaney, 2005; Rodkin & Berger,

2008), and suffered more from peer rejection (Krieg & Dickie, 2013). Furthermore, the

frustration and distress derived from parent-child attachment insecurity are likely to

misguide adolescents to behave inappropriately (e.g., deviant behaviors) in social

settings, which gradually marginalizes them in peer groups (Colonnesi et al., 2011).

These findings suggest that parent-child attachment insecurity is a risk factor for poor

peer status. Adolescents may form a maladaptive working model for handling peer

interactions. Therefore, it is reasonable to expect an association between parent-child insecurity and adolescent SSI.

Similar to parent-child attachment, adolescents' attachment to peers can also be characterized as either secure or insecure, the latter of which is usually divided into avoidant and ambivalent attachment types (Colonnesi et al., 2011; Gorrese, 2016; Nelis & Rae, 2009). Securely attached youths in peer relationships are usually well adjusted, possessing relatively high self-esteem, high satisfaction with family relationships, and well-perceived friendships at school (Armsden & Greenberg, 1987; Wilkinson & Walford, 2001). In contrast, insecure peer attachment has been frequently linked to externalizing behaviors, problematic identity in social relationships, and poor friendship ties (Noom, Deković, & Meeus, 1999; Webster, Gesselman, & Crosier, 2016).

Furthermore, empirical studies have indicated that peer attachment insecurity can produce difficulties in peer relationships. For example, Nelis and Rae (2009) reported a salient association between avoidant and ambivalent peer attachment and anxiety symptoms in Irish adolescents. Insecurely attached adolescents were less likely to receive the emotional support from their peers and thereby were reluctant to act as important attachment figures when socializing with friends (Nelis & Rae, 2009). Likewise, Escobar, Fernández-Baena, Miranda, Trianes, and Cowie (2011) concluded that insecure attachment with peers undermined the affectional support and the feeling of safety during peer interactions because this attachment insecurity adversely affected the social skills adolescents could develop in their social lives. Even when adolescents develop into emerging adulthood, their avoidant attachment to intimate others is also related to lower classroom popularity in peer-based social networks (Webster et al., 2016). Therefore,

peer attachment insecurity engenders difficulties in adolescent interpersonal relationships and peer status. It likely gives rise to the insecurities that adolescents may have about their social status in peer groups.

In summary, much empirical evidence has suggested possible precursors of SSI, including peer victimization, parent-child attachment insecurity, and peer attachment insecurity. A thorough examination of their level of impact on the formation of adolescents' SSI is greatly needed. Furthermore, how these influences are moderated by adolescents' attained peer status (i.e., popularity and social preference) also needs to be examined to clarify the mechanisms by which adolescents develop SSI. Previous literature has generally suggested the buffering or catalyzing effects of various peer statuses on the consequences of poor parent-child relationship or peer experiences. For example, high popularity served as a protective factor for adolescents experiencing overt victimization as popular youths are more likely to receive social supports and prosocial acts from others (Closson & Watanabe, 2018). Additionally, another study has found that Chinese preadolescents who had high popularity and social preference in their peer group reported higher parent-child attachment security than peers in lower social status (Chen, 2011). Similarly, adolescents' social acceptance and parental attachment security were positively associated (Dykas, Ziv, & Cassidy, 2008). On the other hand, low peer status is expected to exacerbate the negative impacts of social and familial experiences on the development of SSI. The positive association between relational victimization and popularity status insecurity tended to be stronger for adolescents with relatively lower popularity (Long et al., 2020). Hence, these findings suggest a protective effect of adolescents' high peer status in their peer and parent interactions, which warrants the

investigation of the buffering effects of adolescent social status on the relationship

between negative parent and peer experiences and SSI.

Rationale

Adolescents pay increasing attention to social status (e.g., popularity or liking)

and often actively pursue a higher status (LaFontana & Cillessen, 2002). As a result, they

may experience anxiety and distress about their status in general (Adler & Adler, 1995;

Downey et al., 1998; Parkhurst & Asher, 1992). Recent research defines this type of

concern and anxious feeling about one's own status not being high enough or being

threatened as Social Status Insecurity (SSI). In the study of Li et al. (2010), SSI is first

proposed as a clear concept and is investigated through a few quantitative questions using

a sample of Chinese adolescents. Following this research, Li and Wright (2014) validated

SSI in a diverse sample of American adolescents via a revised measure of SSI. These

preliminary endeavors shed light on the research of SSI, which is clearly a prevalent issue

in adolescents of different cultural backgrounds. Despite the advancement in our

knowledge about SSI, there are still several areas that await further investigation,

including the validation of SSI using a more comprehensive mixed-method research

methodology and examination of SSI regarding its manifestation, formation, and

implications on developmental outcomes.

Currently, only a few empirical studies have formally measured SSI as a concrete

construct yet employing limited numbers of items (i.e., Li et al., 2010; Li & Wright,

2014). The items utilized in these studies assess adolescents' general feeling of insecurity

about their social standing without specifying which type of peer status (e.g., popularity

social preference, or general social status) they are concerned about. Therefore, a revised

questionnaire concerning subtypes of SSI was utilized. The psychometric properties of this revised measure of SSI were examined with the expectation of providing a reliable tool to differentiate SSI regarding popularity and social preference in this study. Furthermore, the current literature only validates the existence of SSI. It is unclear whether this issue varies by gender, ethnicity, or different levels of actual peer status. The examination of SSI by different demographics and variations in peer standing may provide information regarding which populations are more vulnerable to developing SSI.

Furthermore, in addition to the quantitative examination of SSI, it is also important to validate this construct through a group-focused qualitative approach in the hope of discovering further details in adolescent experiences of SSI. To achieve this goal, focus group discussions about SSI were carried out. Such an investigation of SSI is expected to directly capture adolescents' own views on this issue. Results from the focus group interviews complemented the survey-based findings and very likely yield valuable evidence for the improvement of the SSI measurement. Taken together, this in-depth mixed method probe on SSI built a validated basis for future research and laid a solid theoretical foundation of SSI.

The research on the developmental impacts of SSI has only been limited to adolescent social behaviors. For example, SSI has been found positively linked to increased relational aggression among Chinese early adolescents (Li et al., 2010) and linked to increased relational aggression and decreased prosocial behavior among American adolescents (Li & Wright, 2014). In addition to behaviors, there are many aspects of adolescent development that could be related to SSI. Therefore, the second aim of the proposed study is to examine how SSI relates to adolescent behavioral reactions,

psychological adjustments, interpersonal relationships, academic performance, and physical health. In addition to the behaviors that adolescents exhibit in response to SSI, this study intended to explore whether adolescents' depression, anxiety, and social withdrawal and their physical health were affected by SSI. Research hypotheses about whether the influence of SSI would be exerted on adolescents' social relationships and academic performance were examined as well. Findings with respect to these research questions informed us regarding the significance of SSI in adolescence development.

Given the behavioral implications of SSI, it becomes imperative to investigate the factors that may lead to the development of SSI. Previous research has suggested that peer victimization adversely affects adolescents' social standing and thus is likely to make them feel less secure in social relationships (Berger & Rodkin, 2009; You & Bellmore, 2012). Furthermore, attachment insecurity in parent-child and peer relationships is predictive of lower popularity and social preference status of youths, which may worsen their security about their status among peers (Brown & Wright, 2003; Webster et al., 2016). This study examined the associations between peer victimization, peer attachment insecurity, parent-child attachment insecurity, and SSI. The explicit tests on whether the negative experiences are significant antecedents of adolescent SSI could help psychologists, educators, and parents to be more effective in preventing the insecurities that adolescents have about their social standing, and eventually reduce further developmental maladjustment evoked by SSI.

In summary, this study aims to thoroughly examine SSI through a mixed method approach, investigate the various developmental outcomes of SSI, and discover the predictors of SSI from parent and peer dynamics. Findings of this study helped build a

comprehensive theoretical framework of SSI (see Figure 1). In addition, the moderation

effects of attained peer status were also examined between antecedent factors and SSI,

and between SSI and developmental outcomes to illustrate how SSI might function

differently for adolescents with either high or low popularity or social preference. The

findings of this study enriched the existing body of literature on SSI and provided

empirical evidence for mental health professionals to design programs to help adolescents

with high SSI adjust better in their lives.

Research Questions and Statement of Hypotheses

This proposed study intends to conduct a comprehensive investigation of

adolescents' Social Status Insecurity (SSI), including its manifestation among

adolescents, potential precursors, and various developmental outcomes that are associated

with SSI (see Figure 1). To achieve these research objectives, three major sets of

hypotheses would be examined. The first aim of this study would to obtain an in-depth

validation of SSI through both quantitative and qualitative methods, which is shown in

the central part of the theoretical model. This research goal intends to probe the following

information about SSI: (1) dimensionalities of SSI regarding general social status (SSI-

G), popularity (POPSSI), and social preference (SPSSI), (2) demographic differences of

multiple subtypes of SSI, (3) how subtypes of SSI are shown in adolescents with different

peer statuses, and (4) relationships between different dimensions of SSI and coping

strategies. The research hypotheses correspond to this aim is Hypothesis I.

The second aim of this study is to examine the association between potential

antecedents (i.e., parent and peer attachment, and peer victimization) and forms of SSI,

which is shown on the left side of the theoretical model. Hypotheses II to IV describe the

expected associations from parent attachment, peer attachment, and peer victimization to

multiple types of SSI. In addition, this study would explore which levels of attained peer

status may make adolescents more vulnerable to developing SSI by examining the

moderation effects of attained peer status on the relationship between potential precursors

and forms of SSI.

The third aim, which is shown in the right side of the theoretical model, would

examine the associations between forms of SSI and developmental outcomes, including

behaviors, mental and physical health, social relationships, and academic outcomes.

Hypotheses V to IX would correspond to this research aim. Also, considering the

influences of SSI on developmental outcomes may be not universal among adolescents,

the moderating effects of attained peer status on the associations between forms of SSI

and the potential outcomes are also specified in the third set of hypotheses.
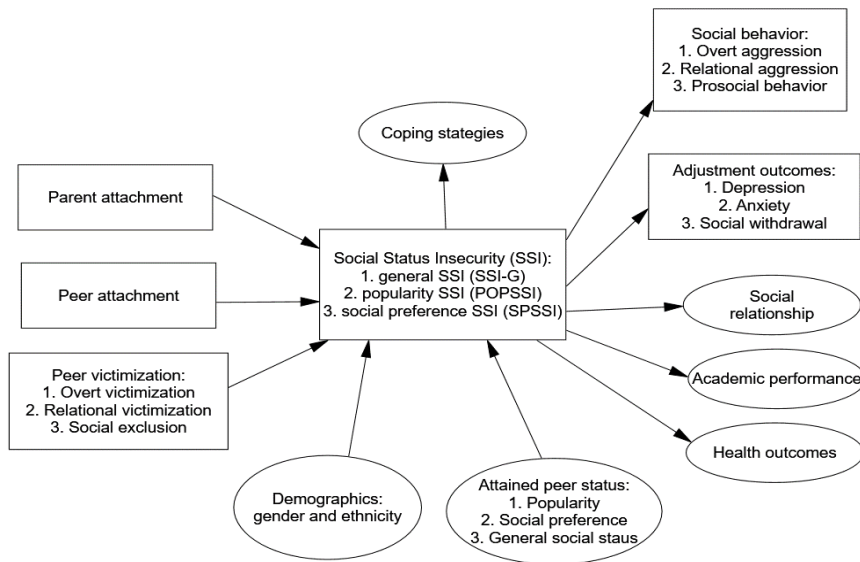
Figure 1. The Theoretical Model of this Proposal

Hypothesis I

To address the first objective of the study, a comprehensive investigation of SSI would be conducted. Specifically, a revised questionnaire would be used to assess adolescents' experiences on SSI in general (SSI-G) and SSI regarding popularity (POPSSI) and social preference (SPSSI). In addition, a focus group interview would be carried out to explore adolescents' perceptions about the display, forms, heterogeneities, and mental-health implications of SSI. Moreover, whether the manifestation of three types of SSI vary due to demographic differences (e.g., gender and ethnicity) and attained social statuses would be examined. Furthermore, employing a series of questionnaire items and one open-ended question, this study would also discover adolescents' coping strategies for SSI. Results from quantitative and qualitative portions would validate each other and thus present an extensive investigation of SSI. Below are the specified statements of Hypothesis I set.

Ia. Adolescents would report different levels of social status insecurity, including popularity status insecurity, social preference status insecurity, and general social status insecurity. The results of the quantitative measure would be consistent with adolescents' discussions from focus group interviews.

Ib. Adolescents would discuss experiencing different types of social status insecurity in focus group interviews. Adolescents would provide their perceptions, experience, and reactions to SSI. Content expressed in this qualitative measure would validate the findings from the quantitative portion of the study in Ia and possibly reveal even more information about SSI that is not captured by the SSI questionnaire.

Ic. Adolescents' SSI in three types would vary by their gender and ethnicity. Due to a lack of previous research, the directions of such demographic variances cannot not be specified. The difference testing on gender and ethnicity is exploratory.

Id. Adolescents with different levels of popularity and social preference status would experience different degrees and forms of SSI. Due to a lack of research on this topic, the peer status differences in SSI would be somewhat exploratory. However, it is reasonable to expect that, in comparison to adolescents with a higher status, adolescents with lower popularity, social preference, or general peer status are more likely to experience POPSSI, SPSSI, or SSI-G.

Ie. Adolescents would report using various coping strategies to deal with SSI via both questionnaire items and the responses from the open-ended question. Adolescents would report using both positive (e.g., family communication) and negative strategies (e.g., negative avoidance) to cope with SSI. Results from quantitative and qualitative methods regarding coping strategies of SSI would validate each other.

Hypothesis II-IV

The second set of hypotheses would examine the associations between negative experiences in parent and peer relationships and SSI. Specifically, parent and peer attachment insecurity as well as peer victimization would be tested as antecedents of SSI. It is hypothesized that negative experiences in parent and peer interactions would be associated with adolescents' SSI of all three types. Adolescents' popularity and social preference statuses are expected to serve as moderators for each of these associations. Hypotheses II through IV detail the relationship between each of these antecedents and SSI.

Hypothesis II. There would be a significant association between parent-child attachment and adolescents' SSI such that higher insecure parent-child attachment would be associated with higher adolescents' SSI in all forms.

IIa. Moderation of attained peer status: The relationships between insecure parent attachment and all three SSI types are expected to be stronger if adolescents are in lower popularity, social preference, or general social status.

Hypothesis III. There would be a significant association between peer attachment and adolescents' SSI. Specifically, higher insecure peer attachment would be associated with higher adolescents' SSI in all forms.

IIIa. Moderation of attained peer status: The relationships between insecure peer attachment and all three SSI types are expected to be stronger if adolescents are in lower popularity, social preference, or general social status.

Hypothesis IV. There would be a significant association between peer victimization and adolescents' SSI. Specifically, victimization in both overt and relational forms, and the victimization of being socially excluded, would be positively related to all types of SSI.

IVa. Moderation of attained peer status: The relationships between overt and relational victimization, as well as social exclusion, and all three types of SSI are expected to be stronger if adolescents are in lower popularity, social preference, or general social status.

Hypothesis V - IX

The third set of research questions would examine the relationships between SSI of different types and a series of behavioral, adjustment, health, and academic outcomes.

The proposed outcomes in this study include aggressive, prosocial, and withdrawal behaviors, internalizing symptoms, physical health indicators, interpersonal relationships, and academic performance. Furthermore, different levels of popularity, social preference, and general social status of adolescents are expected to moderate these associations. These research questions would be examined in hypotheses V to IX.

Hypothesis V. There would be significant associations between all three forms of SSI and different social behaviors. Specifically, adolescents' SSI in three types would be positively related to aggressive behavior, especially relational aggression, but negatively related to prosocial behavior.

Va. There would be a positive association between SSI and relational aggression, such that higher SSI in all three forms would all be associated with more relationally aggressive behaviors of adolescents.

Va (i). Moderation of attained peer status: SSI of all three forms would be more strongly related to relational aggression when adolescents are in lower popularity, social preference, or general social status.

Vb. There would be a slightly positive or non-significant association between SSI and overt aggression. Specifically, higher SSI in all three forms would not be significantly, or slightly positively related to overt aggression.

Vb (i). Moderation of attained peer status: SSI of all three forms would be more strongly related to overt aggression when adolescents are in lower popularity, social preference, or general social status.

Vc. There would be a negative association between SSI and prosocial behavior, such that higher SSI in all three forms would be associated with fewer prosocial behaviors in adolescents.

Vc (i). Moderation of attained peer status: SSI of all three forms would be negatively related to prosocial behavior when adolescents are in lower popularity, social preference, or general social status.

Hypothesis VI. It is expected that there would be positive associations between SSI and adjustment outcomes. High degree of SSI in all three types would be significantly and positively related to adolescents' depression, anxiety, and social withdrawal.

VIa. Moderation of attained peer status: SSI of all three forms would be more strongly related to depression, anxiety, and social withdrawal when adolescents are in lower popularity, social preference, or general social status.

Hypothesis VII. Adolescents' SSI would be associated with adversities in social relationships. The more SSI that adolescents experience, the less satisfaction they would have with their interpersonal relationships.

VIIa: Moderation of attained peer status: SSI of all three types would be more strongly related to dissatisfaction regarding interpersonal relationship when adolescents are in lower popularity, social preference, or general social status.

Hypothesis VIII. Adolescents' SSI would be associated with difficulties in academic performance, such that higher SSI of all three forms would be related to lower Grade Point Average (GPA), lower self-reported general grades, and lower self-rated satisfaction regarding academic performance.

VIIIa. Moderation of attained peer status: SSI of all three forms would be more strongly related to the indicators of poor academic performance when adolescents are in lower popularity, social preference, or general social status.

Hypothesis IX. Adolescents' SSI would be associated with problems in physical health. Specifically, higher SSI would be related to lower general self-rated health, higher frequency of health complaints, and more sleep problems.

IXa. Moderation of attained peer status: SSI of all three forms would be more strongly related to poor physical health indicators as listed above when adolescents are in low popularity, social preference, or general social status.

Study One

Overview

The present study is based on the previous literature that recognizes SSI as a prevalent social cognitive process in general and is predictive to relational aggression among adolescents (Li & Wright, 2014; Long & Li, 2019). To extend the current knowledge of SSI, this study examines various possible heterogeneities of SSI (e.g., popularity status SSI, social preference status SSI, and SSI regarding general peer status), hypothesized precursory factors that may elicit forms of SSI, and expected implications of SSI to a wide array to adolescent development. By having current early adolescents report on SSI status and related developmental experiences as well as outcomes, specific research questions pertinent to this study would be answered. Study one tests Hypothesis I set (i.e., general information about current SSI among adolescents; except for hypothesis Ib, the findings from focus group discussions, which would be illustrated in

Study Two of this dissertation), Hypotheses II to IV (i.e., possible antecedents of SSI),

and Hypotheses V to IX (possible outcomes of SSI).

Study One Method

Research Participants

Participants were 134 (71 girls) 6th ($n = 24$), 7th ($n = 44$), and 8th ($n = 62$) graders

from a suburban middle school in the Midwestern part of the United States. The school

was structured with grades 6th through 8th. The majority of the participants identified

themselves as White (82%), followed by Asian (7.4%), other (4.7%), Hispanic (3.7%),

American Indian or Alaska Native (1.5%), and African American (0.7%). According to

the nearby neighborhood demographics, students in the school have a similar family SES,

ranging from low SES to the middle class. As reported by the district demographics

(Illinois State Board of Education, 2019), 32% mothers of the students in the district and

31% fathers received college or higher degree of education, followed by 28% mothers

and 29% fathers who had some college education or associate degrees. The rest of the

parents of the students in the district had high school or equivalent education (23%

mothers and 28% fathers) or lower (17% mothers and 13% fathers).

Materials

Quantitative measurement of SSI. The SSI measure used by previous research (Li

et al., 2010; Li & Wright, 2014) was adapted for the current study. In the study of Li and

Wright (2014), six SSI items were used to measure adolescents' general SSI. As one

major objective of the proposed study is to explore the multidimensionality of SSI

concerning popularity, social preference, and general social status, eleven SSI items

extending from Li and Wright's (2014) were used in the present study. Among these eleven items, there were be four items to assess SSI pertinent to popularity status (POPSSI; e.g., "I worry about my popularity"), three items to assess SSI pertinent to social preference status (SPSSI; e.g., "I worry that my classmates don't like me"), and four items to assess SSI in general (SSI-G; e.g., "I feel that my status among my classmates is threatened"). Adolescents rated how often the situation described in each SSI item happens to them on a five-point Likert scale (1 = *Never* to 5 = *All the time*). Three different SSI variables (i.e., POPSSI, SPSSI, and SSI-G) showed acceptable reliabilities with the Cronbach's αs were .73 for POPSSI, .70 for SPSSI, and .82 for SSI-G.

Attained social status. Adolescents' attained social status in popularity and social preference were measured via peer nominations. The social preference status was measured via the "peers you like most" and "peer you like least" items (Coie, Dodge, & Coppotelli, 1982). Participants' popularity status was assessed via the "peers who are popular" and "peers who are unpopular" nominations (Mayeux & Cillessen, 2008). Adolescents were asked to use a coded roster given to them at the beginning of the peer nomination survey. Adolescents were instructed to find out these peers on the roster who fit the descriptions in the items and write down the corresponding IDs. Adolescents were allowed to nominate an unlimited number of peers for each item. Also, cross gender and grade-wide nominations were allowed.

To calculate the social preference status score, the standardized "like most" item were used to subtract the standardized "like least" item, the results of which were re-standardized within grade. The popularity scoring followed the same calculation

procedure as the social preference scores. This scoring method has been widely used in

the literature (e.g., Li & Wright, 2014; Mayeux & Cillessen, 2008).

    In addition to peer nominations, adolescents also reported their own popularity

and social preference status on two self-reported items, "I am popular among my peers"

and "I am liked among peers", respectively. They rated their degree of agreement on

these two items on the scales of 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Self-

reported social status, including peer acceptance and popularity, is an appropriate

indicator of adolescents' self-perception of their positions among peers (Dumas, Davis, &

Ellis, 2019; McElhaney, Antonishak, & Allen, 2008). Participants' scores on self-rated

popularity and preference statuses were standardized and then used to test how these two

social statuses were associated with either POPSSI or SPSSI, and in the corresponding

moderation models (e.g., popularity model or social preference model). In addition, those

two standardized peer status constructs were averaged to reflect a combined construct

named self-reported general peer status, with a higher score meaning a higher self-

defined status among peers. The impacts of the self-reported general peer status were

examined regarding its linkage with SSI-G and in the corresponding general moderation

models. This construct showed an acceptable Cronbach's α (.77).

    Coping strategies of SSI. To assess coping strategies for the SSI experience, an

adapted version of the coping checklist for children (KIDCOPE) was applied (Spirito,

Stark, & Williams, 1988). Participants were asked to indicate how they would cope with

SSI by rating the effectiveness of 15 specific coping strategies. Among those strategies,

five items were considered as positive or adaptive strategies in terms of problem solving,

positive emotion regulation, cognitive restructuring, and seeking social support (e.g., I

tried to fix the problem by doing something or talking to someone", "I tried to see the good side of things"). The rest ten items described negative or maladaptive coping strategies in terms of distraction, negative emotion regulation, social withdrawal, wishful thinking, self-criticism, blaming others, and resignation (e.g., "I blamed myself for causing the problem", "I stayed by myself"). For every item, participants indicated the use of a certain coping method by the question "Did you do this?" (*Yes* or *No*) and efficacy by the question "How much did it help"? (*Not at all*, *A little* or *A lot*). Higher scores of positive or negative coping strategies reflected more adaptive or maladaptive coping regarding SSI. Cronbach's for the positive coping strategy was .74 and was .78 for negative coping strategy.

In addition, an open-ended question was also presented after those fifteen rated items (e.g., "What would you do to make yourself feel better if you felt insecure about your social status among classmates"). Adolescents were encouraged to write down their answers about how to cope with SSI. Written responses of this question were coded by two coders followed the content analysis approach (Hsieh & Shannon, 2005). Adolescents' written responses about their own coping strategies were first coded into initial codes, with each code represented the smallest unit of a copy strategy for SSI. Codes with similar contents were further grouped into categories and thus a coding manual was generated, which includes both major categories and finer codes within different category. Details of the codes and categories reflecting adolescents' open-ended answers about coping strategies for SSI are illustrated in the next Study One Results section. Using the coding manual as a guidance, the dummy coding method was employed for the next step of coding. In particular, if a written response applied to one or more category, a score was given to this one category or those several categories. If not, a zero was

applied. It was possible that a participant's answer could be unpacked into several codes and

those codes belonged to more than one category. As a result, a score would be given to each

category that this response fit to. The dummy coding methodology has been widely used in

the qualitative data analysis (Hsieh & Shannon, 2005; Lansford, Malone, Dodge, Pettit, &

Bates, 2010; Wright, Li, & Shi, 2014). Two coders independently coded all responses of this

open-ended question. The Cohen's Kappa was calculated to reflect the inter-rater

reliability. The agreement of coders was acceptable, with the average agreement was 99%

and the overall Cohen's Kappa was .93 for the open-ended question about copings

regarding SSI (Landis & Koch, 1977). Any discrepancies were resolved through careful

discussion between the coders through meetings.

Peer victimization. The peer overt victimization and relational victimization were

assessed via items from the Children's Social Experiences Questionnaire – Peer (CSEQ-

P) in forms of self-reports (Crick & Grotpeter, 1996) and peer nomination (Crick &

Bigbee, 1998). For the self-reported peer victimization, three items measured overt

victimization (e.g., "How often do you get hit by another student at school") and three

items measured relational victimization (e.g., "How often do other students leave you out

on purpose when it is time to play or do an activity"). In addition, adolescents also

reported their experience of being socially excluded on three items (e.g., "How often do

your classmates not treating you as a group member?"). Participants were asked to

indicate how often they think about the situation described in each victimization as well

as social exclusion item on a Likert Scale of 1 (*Never*) to 5 (*All the time*). Means of self-

reported overt and relational victimization, and social exclusion were calculated to

represent these three constructs, respectively. The Cronbach's alphas for self-reported

overt victimization, relational victimization, and social exclusion were .72, .75 and .82.

For peer-nominated overt and relational victimization, participants were asked to nominate as many peers as possible in their grade that they believe conform to the descriptions of each victimization item from the CSEQ-P scale (Crick & Bigbee, 1998). There were three items measuring overt victimization (e.g., "Peers who get beaten up a lot by other classmates" and "people who get yelled at") and three items measuring relational victimization (e.g., "people who get left out of the group when at play or activity time because one of their friends is mad at them"). All nominations for each item were summed up and then standardized within grade. An average score of items assessing the same peer nomination construct was then used to reflect this construct. The overt and relational victimization subscales of the CSEQ-P have been widely used in adolescence behavioral studies with Cronbach's alphas ranging from .75 to .87 for relational victimization and ranging from .84 to .87 for overt victimization in the literature (Cullerton-Sen & Crick, 2005; Lafko, Murray-Close, & Shoulberg, 2015; Putallaz et al., 2007).

Peer attachment. The short form of the Inventory of Parent and Peer Attachment was used for self-reported peer attachment (IPPA; Wilkinson & Goh, 2014). This measure consists of 15 items which assess three dimensions of individual attachment to peers, including trust (e.g., "My friends listen to what I have to say"), communication (e.g., "My friends encourage me to talk about my difficulties"), and alienation (e.g., "I get upset a lot more than my friends know about"). Participants responded to each item on a five-point scale (1 – *Almost never or never true*, 5 – *Almost always or always true*). Trust and communication reflected secure peer attachment, while alienation reflected insecure peer attachment. In addition to the three separate dimensions to reflect different

types of peer attachment, the literature with substantial empirical applications on

adolescent samples also suggests that these three peer attachment dimensions could

together reflect a single construct, attachment security, to indicate how secure individuals

are attached to peers (Alonso-Arbiol et al., 2014). This integrated peer attachment

construct consisted of an average score of trust, communication, and alienation in the

reverse code. For a rounded exploration about how peer attachment would affect

adolescent social status insecurity, the three dimensions of peer attachment and the

overall peer attachment security construct were all examined as potential precursory

factors of social status insecurity. Cronbach's alphas for the peer attachment in trust,

communication, and alienation, and the overall peer attachment were .91, .82,.71 and .83,

respectively.

 Parent attachment. To assess parent attachment, we still used the short form of

the Inventory of Parent and Peer Attachment (IPPA; Wilkinson & Goh, 2014). There

were 15 IPPA items to assess the insecure attachment to participants' primary caregivers

(e.g., mothers or fathers). Those items also reflected three types of parental attachment,

namely, trust (e.g., "My parent respects my feelings"), communication (e.g., "I like to get

my parent's point of view on things I'm concerned about"), and alienation (e.g., "I get

upset a lot more than my parent knows about"). Adolescents were instructed that the term

"parent" in this measure could mean mother, father, and/or the person who is their

primary caregiver and rated the 15 items on a five-points scale from 1 (*Almost never or

never true*) to 5 (*Almost always or always true*). The parental attachment security could

be reflected by the mean scores on trust and communication, while the alienation could

reflect the insecure attachment to parents. In addition to the three separate dimensions to

reflect different types of parental attachment, the literature with substantial empirical

applications on adolescent samples also suggests that these three parental attachment

dimensions could together reflect a single construct, attachment security, to indicate how

secure individuals are attached to parents (Alonso-Arbiol et al., 2014). The overall

parental attachment construct consisted of an average score of trust, communication, and

alienation in the reverse code. For a rounded exploration about how parental attachment

would affect adolescent social status insecurity, the three dimensions of parental

attachment and the overall parental attachment security construct were all examined as

potential precursory factors of social status insecurity. Cronbach's alphas for the parental

attachment in trust, communication, alienation, and the integrated parental attachment

were .91, .83,.80, and .86, respectively.

   Social behaviors. Relational aggression, overt aggression, and prosocial behavior

were assessed through the Children's Social Behavior Scale (CSBS) in the forms of self-

reports and peer nominations (Crick & Grotpeter, 1995). For self-reported social

behaviors, there were three items measuring overt aggression (e.g., "How often do you

start fights with others"), three items measuring relational aggression (e.g., "How often

do you keep a person out of group activities because you are mad at him/her"), and three

items measuring prosocial behavior (i.e., "How often do you help, cooperate or share

with others"). Adolescents rated the frequency of each situation described in those items

on a Likert scale from 1 (*Never*) to 5 (*All the time*). Mean scores of self-reported social

behaviors were generated to represent each social behavior. Cronbach's alphas were .54

for overt aggression, .49 for relational aggression, and .83 for prosocial behavior. Given

the relatively small sample size and relatively few items used to assess those self-reported

aggression constructs, the relatively low reliability of some behavior items was understandable. To further examine whether the items for those two self-reported aggressive behaviors were reliably assessed each construct, a CFA was further conducted. The results showed an adequate model fit (χ^2 = 10.78, df = 8, p >.05, CFI = .96, TLI = .93, $RMSEA$ = .05, $SRMR$ = .05) with the factor loadings of all aggressive behavior items were significant (ps < .01) and greater than .30.

For the peer-nominated social behaviors, adolescents were asked to nominate as many peers as possible who conform to the descriptions of each social behavior item. There were three items on overt aggression (e.g., "Hits, pushes others"), three items on relational aggression (e.g., "Tell friends they will stop liking them unless friends do what they say"), and three items on prosocial behavior (e.g., "Does nice things for others"). The scoring method of peer-nominated social behavior constructs followed the same procedures presented in the Peer Victimization section. Both self-reported and peer nominated social behaviors have received adequate reliability and validity from previous empirical research (Li et al., 2010; Li & Wright, 2014; Wright et al., 2014).

Depressive symptoms. The short form of the Child Depression Inventory (CDI-S) was used to assess adolescents' depressive symptoms (Kovacs & Staff, 2003). This measure has ten items which were designed to screen childhood depression. For example, sample items are, "I am sure that somebody loves me", "I am not sure if anybody loves me", and "Nobody really loves me". Participants responded to those items by circling the statements that best fits their feelings. A mean depression score was calculated from adolescents' responses on the CDI-S items. Cronbach's alpha for the CDI-S was .87.

Anxiety. adolescents' anxiety was measured by the short version of the Social Anxiety Scale for Adolescents (SAS-A; Nunes, Ayala-Nunes, Pechorro, & La Greca, 2018). This 12-item measure consists of three aspects of social anxiety, including four items assessing Fear of Negative Evaluation from Peers (FNE; e.g., "I worry about what other kids think of me"), four item measuring Social Avoidance and Distress Specific to New Situations (SAD-New; e.g., "I feel shy around kids I don't know"), and four items capturing Generalized Social Avoidance and Distress (SAD-G; e.g., "I am quiet when I'm with a group of kids"). Participants were asked to rate each item on a 5-point Likert scale (1 = *Not at all* to 5 = *All the time*). A mean score to reflect participants' anxiety was generated for the analyses. An adequate reliability was shown for this anxiety construct (α = .91)

Social withdrawal. Adolescents' social withdrawal was assessed through self-reports and peer nominations. There were three items measuring social withdrawal (e.g., "How often would you rather play alone than play with peers"), which are adapted from the Children's Social Experiences Questionnaire (Crick & Grotpeter, 1996). Adolescents rated the frequency of each situation described by those social withdrawal items on a Likert scale from 1 (*Never*) to 5 (*All the time*). A mean score of self-reported social withdrawal was used for later analysis. Reliability of social withdrawal was acceptable (α = .77)

Social relationship dissatisfaction. Adolescents' satisfaction with interpersonal relationship with peers were accessed through four adapted items from the Self-Description Questionnaire II (SDQ II; Collie, Martin, Papworth, & Ginns, 2016; Marsh, 1992). The sample item of this variable was like "Overall, I get along well with other

students at this school." Adolescents rated those items on the scales of 1 (*Strongly Agree*)

to 7 (*Strongly Disagree*). Higher scores referred to larger dissatisfactions regarding peer

relationships. A mean score of those items was generated to represent the social

relationship dissatisfaction. This construct showed adequate reliability with a Cronbach's

alpha coefficient as .87.

Health measures. To examine if SSI would be related to adolescents' health

issues, this study measured adolescents' subjective health and sleep quality. The first

measure assessed adolescents' subjective health via seven self-report items. The first

question, "In general, how would you rate your current health status?", measured the self-

rating of health in general (Wu et al., 2013). The options of this question were listed as "5

= *very good*," "4 = *good*," "3 = *fair*," "2 = *bad*," and "1 = *very bad*." The next six items

assessed the frequency of self-reported health complaints, including cold, headache,

stomachache, backache, feeling dizzy, and the medical leave of absence on a five-point

scale with five referring to *about every day*, four referring to *more than once a week*,

three referring to *about every week*, two referring to *about every month*, and one referring

to *rarely or never* (Keane, Kelly, Molcho, & Gabhainn, 2017). The Cronbach's alpha for

the subjective health complaint was .75.

Additionally, adolescents' sleep quality was assessed through four items from the

Athens Insomnia Scale (AIS; Soldatos, Dikeos, & Paparrigopoulos, 2000). They

measured sleep induction, awakenings during the night, total sleep duration, and sleep

quality. For each item, participants in this study was asked to select one statement that

could best describe their own condition on sleep. A mean score of those four items was

used to reflect overall sleep quality, with the higher score indicated more sleep-related problems. Cronbach's α for this construct was .76.

Academic performance. Adolescents' academic performance was measured by three items. Participants first reported their cumulative grade point average (GPA) on a seven-point scale with 1 = less than 1.50, 2 = 1.50-1.99, 3 = 2.00-2.49, 4 = 2.50-2.99, 5 = 3.00-3.49, 6 = 3.50-3.99, and 7 = 4.00 (Barthelemy & Lounsbury, 2009). In addition, adolescents also reported their academic performance on the question "What grades do you most often receive?" They were asked to choose the option that most accurately described their grades from *Mostly As, Mostly As and Bs, Mostly Bs, Mostly Bs and Cs, Mostly Cs, Mostly Cs and Ds, Mostly Ds, Mostly Ds and Es,* or *Mostly Fs.* For the scoring of this question, a numeric value was assigned to each grade option (i.e., Mostly As = 9, Mostly Fs = 1). Furthermore, the third question assessing academic performance was a self-evaluation item as well, "How well are your studies going" (Mehra, Kyagaba, Östergren, & Agardh, 2014). Participants were asked to choose one of the following alternatives to best describe their performance in academics: 5 = *My studies are excellent*, 4 = *My studies are very satisfactory*, 3 = *My studies are satisfactory*, 2 = *My studies are unsatisfactory*, 1 = *My studies are very unsatisfactory*). Correlations of these three standardized academics items were significant (*p*s < .001, *r*s > .37).

Procedure

The protocol of this study, including all the questionnaires and research materials, were reviewed and approved by IRB of the principal investigator's university before recruiting participants. Then, the investigator sent emails to the principals of qualified middle schools for the study invitation. Upon receiving the approval from the

participating school, the principal investigator visited the school and met with the

principal to introduce the procedures of collecting consents and the data. After the

meeting, the participant recruitment flyers were posted on the grade wing and the consent

slips were distributed to students in 6th, 7th, and 8th grades under the help of the

homeroom teachers. Each consent slip included a letter to parent that briefly explained

the study, a parental permission form that let the adolescent's parent to give permission,

and an adolescent assent form to let adolescent to give assent. Homeroom teachers also

helped remind adolescents and collect back the signed consent slips two weeks after the

distribution. Only those adolescents with both parental permissions and assents from

themselves could take part in the study. With the help of the homeroom teachers again,

those specific participants were provided a link of the survey to let them fill out online in

their spare time. They were informed that their participation was voluntary and the data

we collect would be kept confidential. After completion, every participant received a $15

gift card for appreciating their time and participation. Response rate of the participants at

this school was about 13%.

Study One Results

Preliminary Analyses

Descriptive analyses were first conducted for all continuous variables of the

study, with means, standard deviations, and bivariate Pearson correlations. Given that

there were more than 30 study variables in this project, it was not an effective layout to

include all study variables in one correlation table. Therefore, three correlation tables

were presented with each table reflecting one set of hypotheses (see Tables 1 to 3; the

large, complete correlation table including all study variables is available upon request).

Specifically, Table 1 demonstrated the correlations among variables in the Hypothesis I set (e.g., three forms of SSI, three forms of social status, and coping strategies for SSI). Table 2 showed the correlations among variables in the Hypothesis II set, the associations between potential antecedents of SSI and three forms of SSI. Table 3 displayed the correlations among variables in the Hypothesis III set, the associations between three forms of SSI and multiple developmental outcomes. Because more than two thirds of the participants either skipped the peer nomination section or did not follow the instructions to nominate peers' study ID while filling out the surveys online, the peer nomination data were not sufficient to be analyzed, and thus the present study primarily relied on self-reported data.

The correlation results for adolescents' social status in different forms, SSI in different forms, and coping strategies generally indicated that three types of SSI were positively correlated with each other. The correlations between different types of social status and different types of SSI were negative in general. Three types of SSI were all positively correlated with negative coping strategies (see Table 1).

The correlation relationships between the proposed precursory factors and popularity related SSI showed that overt victimization, relational victimization, social exclusion, and alienation in both parental and peer attachment were significantly and positively correlated with popularity status insecurity (see Table 2). In contrast, communications in parental attachment and the general secure attachment with parents and peers were significantly and negatively correlated with popularity status insecurity. For the potential antecedents and social preference status insecurity, overt victimization, relational victimization, social exclusion, and alienation in parent and peer attachment

were positively correlated with social preference status insecurity, but peers' trust in peer attachment and the general secure attachment with parents were negatively correlated with this insecurity. Moreover, overt victimization, relational victimization, social exclusion, and alienation in parent and peer attachment were positive correlates of social status insecurity regarding general social status, whereas trust in parent and peer attachment, communication in parent attachment, and the general attachment with parent and peers were negative correlates of it.

For the correlations between different forms of SSI and various developmental outcomes, popularity status insecurity was significantly and positively correlated with overt aggression, relational aggression, social withdrawal, depressive symptoms, anxiety, social relationship dissatisfaction, health complaints, and sleep problems, and negatively related to subjective health. Social preference status insecurity was significantly and positively correlated with overt and relational aggression, social withdrawal, depressive symptoms, anxiety, self-evaluated grade, social relationship dissatisfaction, health complaints, and sleep problems. Additionally, general social status insecurity was positively related to overt aggression, relational aggression, social withdrawal, depressive symptoms, anxiety, social relationship dissatisfaction, health complain, and sleep problems, but negatively linked with prosocial behavior and academic satisfaction (see Table 3).

Table 1

Bivariate Correlations among Study Variables in the Hypothesis 1 Set

	1	2	3	4	5	6	7	8
1. POPSSI	—							
2. SPSSI	.71**	—						
3. SSI_G	.67**	.69**	—					
4. Popularity	-.24**	-.31**	-.35**	—				
5. Social preference	-.31**	-.35**	-.48**	.63**	—			
6. General social status	-.30**	-.37**	-.46**	.92**	.89**	—		
7. Positive coping	-.01	.03	-.05	.10	.28**	.20*	—	
8. Negative coping	.35**	.35**	.33**	-.09	-.22*	-.17	.22*	—
Mean	2.18	2.59	2.04	4.56	5.60	5.08	1.78	.98
SD	.78	.85	.83	1.61	1.42	1.37	.83	.43
Range[a]	1-5	1-5	1-5	1-7	1-7	1-7	0-3	0-3

Note. POPSSI = Social Status Insecurity regarding Popularity; SPSSI = Social Preference Social Status Insecurity; SSI-G = Social Status Insecurity regarding General social status.

[a]The last row reports the ranges of possible scores.

*p < .05. **p < .01.

Table 2
Bivariate Correlations among Study Variables in The Hypothesis II Set

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. POPSSI	—													
2. SPSSI	.71**	—												
3. SSI_G	.67**	.69**	—											
4. Overt victimization	.18*	.35**	.34**	—										
5. Relation victimization	.31**	.33**	.44**	.56**	—									
6. Social exclusion	.43**	.52**	.63**	.49**	.50**	—								
7. Parent trust	-.15	-.17	-.23*	-.32**	-.17	-.22*	—							
8. Parent communication	-.21*	-.15	-.22*	-.23**	-.16	-.28**	.69**	—						
9. Parent alienation	.35**	.30**	.31**	.29**	.30**	.30**	-.49**	-.54**	—					
10. Parent attachment	-.28**	-.25**	-.30**	-.33**	-.25**	-.32**	.85**	.88**	-.81**	—				
11. Peer trust	-.17	-.20*	-.30**	-.28**	-.20*	-.47**	.32**	.30**	-.29**	.36**	—			
12. Peer communication	.01	.10	.02	-.07	.03	-.19*	.23*	.29**	-.18*	.27**	.65**	—		
13. Peer alienation	.44**	.27**	.38**	.27**	.24**	.39**	-.29**	-.37**	.68**	-.53**	-.47**	-.31**	—	
14. Peer attachment	-.25**	-.14	-.26**	-.25**	-.16	-.43**	.35**	.40**	-.47**	.48**	.87**	.82**	-.73**	—
Mean	2.18	2.59	2.04	1.45	1.59	1.99	4.29	3.79	2.32	2.52	4.18	3.50	2.20	2.38
SD	.78	.85	.83	.60	.65	.81	.84	.94	.93	.77	.85	.97	.92	.73
Range [a]	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5

Note. POPSSI = Social Status Insecurity regarding Popularity; SPSSI = Social Preference Social Status Insecurity; SSI-G = Social Status Insecurity regarding General social status;

[a]The last row reports range of possible scores.

*p < .05. **p < .01.

Table 3

Bivariate Correlations among Study Variables in The Hypothesis III Set

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. POPSSI	—															
2. SPSSI	.71**	—														
3. SSI_G	.67**	.69**	—													
4. Prosocial behavior	-.11	-.09	-.22*	—												
5. Overt aggression	.18*	.21*	.23*	.00	—											
6. Relational aggression	.36**	.29**	.29**	.00	.40**	—										
7. Depressive symptoms	.48**	.53**	.58**	-.25**	.14	.22*	—									
8. Anxiety	.60**	.62**	.67**	-.19*	.05	.20*	.64**	—								
9. Social withdrawal	.21*	.26**	.39**	-.30**	.04	.20*	.53**	.45**	—							
10. Relationship dissatisfaction	.29**	.30**	.49**	-.55**	.00	.07	.47**	.49**	.54**	—						
11. Self-reported GPA	.06	.13	.05	.02	.07	.08	-.03	-.07	-.07	-.04	—					
12. Self-evaluated grade	.13	.18*	.04	-.10	.04	.08	-.08	-.09	-.03	-.02	.71**	—				
13. Academic satisfaction	-.17	-.05	-.21*	.21*	-.16	-.08	-.26**	-.20*	-.06	-.11	.36**	.39**	—			
14. Health complaints	.25**	.33**	.39**	-.03	.33**	.10	.34**	.41**	.12	.18*	.07	.02	-.07	—		
15. Subjective health	-.18*	-.13	-.16	.28**	-.08	-.14	-.50**	-.23*	-.35**	-.29**	.14	.11	.23*	-.28**	—	
16. Sleep problems	.28**	.32**	.34**	-.23*	.19*	.17	.46**	.39**	.25**	.22*	.09	.04	-.25**	.48**	-.33**	—
Mean	2.18	2.59	2.04	4.09	1.33	1.68	1.35	2.57	2.20	2.30	5.64	7.98	3.87	1.83	4.02	1.83
SD	.78	.85	.83	.73	.42	.57	.39	.83	.90	1.00	1.10	1.26	.82	.67	.78	.59
Range [a]	1-5	1-5	1-5	1-5	1-5	1-5	1-3	1-5	1-5	1-7	1-7	1-9	1-5	1-5	1-5	1-4

Note. POPSSI = Social Status Insecurity regarding Popularity; SPSSI = Social Preference Social Status Insecurity; SSI-G = Social Status Insecurity regarding General social status;

[a] The last row reports range of possible scores.

*p < .05. **p < .01.

Primary Analyses

To examine the three sets of research questions, which include the narrative view of SSI, potential precursory factors of various forms of social status insecurity (SSI) in adolescent social experiences and relationships, and potential developmental outcomes of various forms of SSI, a variety of statistical analyses were conducted. The first set of hypotheses (Hypothesis I) aims to provide a comprehensive overview of SSI among adolescents. Specifically, the multidimensional nature of adolescent insecurities regarding different types of peer statuses (i.e., popularity, social preference, and general social status) was probed via both an Exploratory Factor Analysis (EFA) and a Confirmatory Factor Analysis (CFA). Demographic differences and the variations due to the attained peer status of different dimensions of SSI were tested through a series of analysis of variance. Furthermore, the coping strategies that adolescents used to deal with SSI problems were also summarized from both scale items and the open-ended question.

With regard to the second set of hypotheses (Hypotheses II to IV), which cared about the impact of adolescent experiences in the peer context and attachments to parents as well as peers on the formation of SSI, a series of hierarchical multiple regressions were conducted. Independent variables included peer victimization, peer attachment, and parent attachment. Dependent variables included general Social Status Insecurity (SSI-G), Popularity Status Insecurity (POPSSI), and Social Preference Status Insecurity (SPSSI). In addition, adolescent attained peer status in popularity, social preference, and general social status served as moderators. Specifically, in the popularity (POP) model, the dependent variable was POPSSI and the moderator was adolescents' popularity; in the social preference (SP) model, the dependent variable was SPSSI and the moderator

was social preference; and in the general status model, adolescents' general peer status was the moderator and SSI-G was the dependent variable. Two-way interactions between every independent variable and the moderator were included in the separate hierarchical multiple regression models. Continuous predictors were centered to avoid multicollinearity (Aiken & West, 1991). Significant interactions were followed up with simple slop analyses to examine to what extent attained peer status influenced the associations between the precursory factors and adolescent SSI. Moreover, adolescents' demographics (e.g., gender) served as control variables in this set of hypothesis testing.

Likewise, another group of hierarchical multiple regression analyses was used to examine the third set of hypotheses (i.e., Hypotheses V to IX), which covered the associations between multiple forms of SSI and a wide range of developmental outcomes. In this set of analysis, the hypothesized developmental outcomes, including social behaviors, adjustment difficulties, adversities in social relationships, health, and academic performance were dependent variables. To clarify the specific influences of POPSSI, SPSSI, or SSI-G on adolescents' developments under the moderation of different peer statuses respectively, separate moderation models were examined such that in the popularity (POP) model, when POPSSI serves as the independent variable, adolescents' popularity was the moderator. In the social preference (SP) model, SPSSI was the independent variable and social preference was the moderator. In the general status model, the SSI-G was the independent variable and the overall peer status was the moderator. Mean centering was applied to continuous predictors before creating interaction terms between certain types of SSI and certain types of social status to prevent multicollinearity (Aiken & West, 1991). Significant interaction terms were followed up

with simple slope analyses to identify how the associations between different SSIs and developmental outcomes varied according to different levels of attained peer status. Again, demographic variables served as control variables in this analysis set.

Hypothesis I

The first hypotheses set provides a descriptive understanding of SSI. The dimensional manifestation of SSI in terms of different peer statuses (i.e., popularity, social preference, and general social status) as well as the individual differences (e.g., gender, ethnicity, social status levels, etc.) regarding different types of SSI were examined. In addition, the coping strategies adolescents employed to cope with SSI were also explored in this section.

Hypothesis Ia. descriptive information of adolescent SSI. To examine whether SSI would be significantly differentiated into popularity SSI (POPSSI), social preference SSI (SPSSI) and general SSI (SSI-G), or manifested as a combined construct, an Exploratory Factor Analysis (EFA) and a Confirmatory Factor Analysis (CFA) has be conducted. In EFA, the Kaiser-Meyer-Olkin measure of sampling adequacy (.85) and the Bartlett's Test of Sphericity [$\chi^2_{(55)} = 612.20; p < .001$] supported the sampling adequacy. Next, the Principal Axis Factoring (PAF) and Maximum Likelihood significance test were used to explore how many factors to retain among the eleven SSI items (Pett, Lackey, & Sullivan, 2003). Both the variances explained (three factors explain more than 5 % of the common variance; the accumulative variance explained by these three factors was 61 %) and the Goodness-of-fit Test in the non-rotated analyses recommended a three-factor solution ($\chi^2 = 32.68, df = 25, p > .05$). In the second PAF with the Direct Oblimin ($\delta = 0$) rotation EFA analysis, a three-factor solution of the

eleven SSI items was also supported. In this three-factor solution, the variance explained

by each factor was 41.8%, 10.72% and 5.92%, respectively. There was 58.45% of

variance in the indicators explained by the three factors together. The EFA results with

factor loadings are shown in Table 4, reflecting the values from the pattern matrix. The

factor loadings were acceptable in magnitude and supported a three-factor model.

Table 4

EFA Factor Loadings

Item	Factor		
	Popularity insecurity	Social preference insecurity	General social status insecurity
I worry about my popularity	.48		
I feel I am unpopular among my classmates	.60		
I care about the level of popularity of mine	.51		
I worry that I'm not in the popular peer group	.53		
I worry that my classmates do not like me		.62	
I care about whether I am liked by my classmates		.56	
I feel my classmates do not like me		.61	
I feel that my social standing among my classmates is threatened			.67
I care about my peer status among my classmates			.35
I feel that my status among peers is not high			.60
I worry that I'm not included in social events (e.g., lunch groups, extracurricular activities, sports)			.57

Note. Exploratory factor analysis (EFA) results obtained using Principal Axis Factoring (PAF) extraction, the Direct Oblimin rotation. The factor loadings show results from the pattern matrix. Items with factor loadings < .3 are suppressed.

Furthermore, according to the hypothetical subtypes of SSI, a three-factor CFA model was examined, and the model fit of which was adequate [χ^2 = 64.36, *df* = 35, *p* = .0018, comparative fit index (*CFI*) = .95, Tucker–Lewis index (*TLI*) = .92, root mean squared error of approximation (*RMSEA*) = .08, standardized root mean square residual (*SRMR*) = .06]. Factor loadings of the items were all significant on each SSI factors (*p* < .001) and greater than .35 (see Table 5). Whereas, the one-factor model (i.e., all eleven SSI items combined) did not demonstrate an adequate model fit (χ^2 = 99.18, *df* = 41, *p* < .001, *CFI* = .90, *TLI* = .87, *RMSEA* = .10, *SRMR* = .08). Compared these two models, the three-factor SSI model fit the data significantly better than the one-factor model because of a great decrease in model fit ($\Delta\chi^2$ = 34.82, Δ *df* = 6, *p* < .001). Cronbach's alpha were acceptable for three SSI constructs (.73 for POPSSI, .70 for SPSSI, and .82 for SSI-G). In summary, the results from the EAF and CFA both supported the three-factor model, such that adolescent SSI in this study could be reflected as insecurities regarding popularity status, social preference status, and general social status (i.e., POPSSI, SPSSI, and SSI-G).

Table 5

CFA Factor Loadings

Item	Standardized factor loadings
Social status insecurity regarding popularity (POPSSI)	
1. I worry about my popularity	.54
2. I feel I am unpopular among my classmates	.62
3. I care about the level of popularity of mine	.56
4. I worry that I'm not in the popular peer group	.62
Social status insecurity regarding social preference (SPSSI)	
I worry that my classmates do not like me	.73
I care about whether I am liked by my classmates	.59
I feel my classmates do not like me	.70
Social status insecurity regarding general social status (SSI_G)	
I feel that my social standing among my classmates is threatened	.75
I care about my peer status among my classmates	.43
I feel that my status among peers is not high	.62
I worry that I'm not included in social events (e.g., lunch groups, extracurricular activities, sports)	.62

Note. All factor loadings were significant at *p*<.001

Correlation results indicated that these three types were all positively related to each other (*r*s between .60 to .70, *ps* < .001). Based on the scale of all SSI items (i.e., 1 = *Never*, 2 = *Almost never,* 3 = *Sometimes,* 4 = *Almost all the time,* to 5 = *All the time*), a considerable amount of participants (42% on average) reported experienced at least one specific description of social status insecurity at a self-rated frequency as "sometimes" or more often. The portion of the participants who reported experienced any one of the specific SSI descriptions at the frequency as "sometimes" or higher ranged from 19% to 73% on the eleven SSI measure items.

Hypothesis Ib. adolescent focus group discussions on SSI. The narrative results regarding this research question were presented in the Result section of Study Two, which was the focus group study.

Hypothesis Ic. demographic difference of SSI. To examine whether the manifestation of three types of SSI differed by demographics, a factorial multivariate analysis of variance (MANOVA) test was conducted. Given that a large proportion of the participants identified themselves as White (82%), the demographic variable ethnicity was categorized as the ethnical majority (i.e., White adolescents) and the ethnical minority (i.e., non-White adolescents) in the present study. Therefore, a 2 (gender; boys vs. girls) × 2 (ethnicity; White vs. non-White) × 3 (grade; 6th grade vs. 7th grade vs. 8th grade) MANOVA test was conducted with three types of SSI as dependent variables. Significant effects were found for gender on the insecurities regarding popularity, social preference, and general peer status, $F(3, 117) = 3.16$, $p < .05$; Wilk's $\Lambda = .93$, partial $\eta^2 = .08$. The stepdown univariate ANOVAs on the outcome variables showed that girls had significantly higher levels of POPSSI [$F(1, 119) = 7.01$, $p < .01$, $M = 2.34$, $SD = .84$],

SPSSI [$F(1, 119) = 9.36$, $p < .01$, $M = 2.79$, $SD = .88$], and SSI-G [$F(1, 119) = 5.22$, $p < .05$, $M = 2.19$, $SD = .86$] than boys ($M = 1.98$, $SD = .64$ for boys' POPSSI, $M = 2.34$, $SD = .75$ for boys' SPSSI, and $M = 1.86$, $SD = .77$ for boys' SSI-G). However, the MANOVA results revealed that adolescents' SSI did not vary significantly between White vs. non-White participants, $F(3, 117) = .78$, $p = n.s.$; Wilk's $\Lambda = .91$, partial $\eta^2 = .02$, nor among different grades, $F(6, 234) = .31$, $p = n.s.$; Wilk's $\Lambda = .98$, partial $\eta^2 = .01$. Though the group differences of three forms of SSI in different ethnicity groups and grades were not significant, the descriptive results showed that White adolescents in this study reported experiencing slightly more insecurities regarding popularity ($M = 2.21$, $SD = .78$), social preference ($M = 2.64$, $SD = .85$) , and general social status ($M = 2.07$, $SD = .85$) than their non-White counterparts ($M = 1.96$, $SD = .73$ for POPSSI, $M = 2.33$, $SD = .81$ for SPSSI, and $M = 1.90$, $SD = .75$ for SSI-G). The differences of three types of SSI across three grades were not obvious ($M = 2.16$, $SD = .94$ for 6th graders' POPSSI, $M = 2.74$, $SD = .71$ for or 6th graders' SPSSI, and $M = 2.06$, $SD = .59$ for or 6th graders' SSI-G; $M = 2.17$, $SD = .81$ for 7th graders' POPSSI, $M = 2.60$, $SD = .88$ for 7th graders' SPSSI, and $M = 2.02$, $SD = .66$ for 7th graders' SSI-G; $M = 2.19$, $SD = .70$ for 8th graders' POPSSI, $M = 2.52$, $SD = .77$ for 8th graders' SPSSI, and $M = 2.05$, $SD = .89$ for 8th graders' SSI-G). The two-way and three-way interactions of those three demographic variables did not reach to statistical significance (Fs < 2.65, ps $> .05$).

Hypothesis Id. social status and SSI. The correlation results indicated that higher peer status overall was negatively correlated with SSI in general. Specifically, adolescent self-rated popularity status was negatively correlated with POPSSI ($r = -.24$, $p < .01$), self-rated social preference status was negatively correlated with SPSSI ($r = -.36$,

$p < .01$), and their general self-perceived social status was negatively correlated with SSI-G ($r = -.46$, $p < .01$). Furthermore, three separate simple linear regressions were carried out to see if one of the three specific peer status (e.g., popularity status, social preference status, and general social status) could be predictive of the corresponding SSI (e.g., POPSSI, SPSSI, and SSI-G), above and beyond demographic variances (e.g., gender, ethnicity, grade). It was indicated that popularity was significantly and negatively related to POPSSI ($\beta = -.25$, $p < .01$). Social preference was significantly and negatively related to SPSSI ($\beta = -.39$, $p < .01$). General peer status was significantly and negatively related to SSI-G ($\beta = -.48$, $p < .01$). Thus, it was concluded that adolescents with lower popularity, social preference, and general status were likely to experience higher levels of POPSSI, SPSSI and SSI-G, respectively.

Hypothesis Ie. SSI and coping strategies. For the relationships between three forms of SSI that adolescents' experiences and the coping strategies measured by the scale items, the correlational analyses revealed that three types of SSI were all positively linked with negative coping strategies ($r = .35$, $p < .01$ for POPSSI; $r = .35$, $p < .01$ for SPSSI; $r = .33$, $p < .01$ for SSI-G), indicating associations between the increasing insecurities regarding different social statuses and the increasing likelihood of using maladaptive coping strategies, such as social withdrawal or self-blaming, to deal with those insecurities.

To further test that what coping strategies that adolescents in different peer status levels would use while encountering with different forms of SSI, some exploratory hierarchical multiple regressions were conducted. In the popularity specific model, POPSSI served as the independent variable and popularity served as the moderator. In the

social preference specific model, SPSSI was the independent variable and social preference served as the moderator. In the general social status model, the independent variable was SSI_G and the moderator was general peer status. Dependent variables were positive coping strategies and negative coping strategies respectively in each regression model. In addition, gender, ethnicity, and grade in the dummy codes served as control variables. Though no moderation effect of any social status was found on the association between three types of SSI and two types of coping strategies, results revealed that the grade that participants were in at the middle school, the social preference status that the participants attained, and the levels of all three forms of SSI that the participants reported all played important roles in the coping tactics that they employed to deal with SSI issues. Specifically, compared to adolescents in the relatively lower grades at the middle school (i.e., 6th and 7th grades), adolescents in 8th grade reported a more likely usage of positive coping strategy to cope with SSI (βs = .18 to .22, ps < .05). The results revealed a positive association between high social preference status and using positive coping strategies in response to SSI (β = .25, p < .05; R^2 = .14, ΔR^2 = .06, p < .05). In addition, the significant main effects indicated that POPSSI, SPSSI and SSI-G all significantly and positively related to negative coping strategy (β = .39, p < .001; R^2 = .22, ΔR^2 = .17, p < .001 for POPSSI; β = .39, p < .001; R^2 = .26, ΔR^2 = .21, p < .001 for SPSSI; and β = .30, p < .01; R^2 = .19, ΔR^2 = .14, p < .001 for SSI-G; see Table 6).

Table 6

Hierarchical Multiple Regressions for Predicting Coping Strategies from SSI and Social Status

	Negative coping strategies				Negative coping strategies				Negative coping strategies		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.05	.05			.05	.05			.05	.05
Gender	.21*			Gender	.21*			Gender	.21*		
Ethnicity	-.06			Ethnicity	-.06			Ethnicity	-.06		
Grade	.05			Grade	.05			Grade	.05		
Block 2		.22	.17***			.26	.21***			.19	.14***
Gender	.12			Gender	.13			Gender	.16		
Ethnicity	-.01			Ethnicity	-.01			Ethnicity	-.02		
Grade	.05			Grade	.11			Grade	.07		
POP	-.09			SP	-.16			SS-G	-.13		
POPSSI	.39***			SPSSI	.39***			SPSSI	.30***		
Block 3		.24	.02			.27	.01			.22	.03
Gender	.12			Gender	.14			Gender	.16		
Ethnicity	-.01			Ethnicity	-.001			Ethnicity	-.02		
Grade	.03			Grade	.12			Grade	.07		
POP	-.12			SP	-.19*			SS-G	-.18		
POPSSI	.39***			SPSSI	.40***			SPSSI	.33**		
POP x POPSSI	.14			SP x SPSSI	.01			SS-G x SSI-G	.17		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7 grades = 1, 8th grade = 2. POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity;

SP = Social Preference; SPSSI = Social Preference Social Status Insecurity;

SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.

With regard to the open-ended question of adolescents' coping for the insecurities

pertinent to social standing in terms of popularity, social preference, and general peer

status, 114 out of 134 participants provided valid written answers. Those valid written

responses were initially summarized into 17 categories (see Table 7). Specifically, the

seeking social support major category included three sub-categories of the social

diversions that adolescents indicated to turn to. Those three sub-categories are *friend*

social support (e.g., talking to, sticking to, or hanging out with friends; 29% of the

responses), *family social support* (e.g., talking to or spending time with family, parents,

or siblings; 16% of the responses), and *other social support* (e.g., talking to teachers,

social workers, or other people in general; 12% of the responses). The next category,

avoidance, included codes implying that adolescents would choose to forget, withdraw

from, or avoid thinking about SSI issues. There were 11% of the participants who

provided valid answer to the open-ended question suggested using avoidance as a coping.

The category *ignoring* suggested that adolescents would show a careless or neglecting

attitude to SSI issues and would do nothing to deal with it (17% of the participants'

written answers fit this category). The *distraction* was another major category that

referred to the coping strategies of moving away from the SSI stressor by specific

hobbies (e.g., drawing, reading, playing games or watching TV; 10% of the responses) or

other distractions (e.g., "do what I think is cool"; 4% of the responses). The next major

category, *cognitive strategies*, included three cognitive-based coping strategies for SSI,

namely, *cognitive restructuring* (16%)*, acceptance* (7%)*, and, self-reliance* (4%). The

cognitive restructuring referred to a series of positive thoughts relevant to self-

reassurance, self-persuasion, and self-affirmation, such as looking at the bright side of the

issue, being grateful, and reassuring oneself. The *acceptance* sub-category implied codes

to accept the existence of SSI, for example, accepting that this issue happens for reasons

or admitting that others might have their own opinion. The *self-reliance* sub-category

covered independent and self-governing related coping methods, such as keeping to

oneself. The *problem-solving* major category consists of two sub-categories, *positive*

problem-solving (11%) and *conformity* (6%). The former referred to positively taking

actions to deal with SSI (e.g., trying to be a better self) and the latter comprised to act

more like the popular peers or to befriend with popular peers. The major category

emotional expression comprised two emotional related reactions, namely, *negative*

emotions (e.g., getting mad or cry; 3%) and *extreme emotional reactions* (e.g., "scratch

my hand to help take the pain away"; 3%). Another emotional relevant major category

was called *tension reduction*, which contains the *emotional regulation* (e.g., calming

down; 2%) and the *relaxation* (e.g., taking a breath; 4%) two sub-categories. In addition

to the above-mentioned categories, there was a particular category titled *other* that

includes participants' responses which were hard to code, such as "don't know". A list of

all the categories of the coping strategies emerged from open-ended answers with

frequencies and percentages is presented in Table 7.

   Comparing participants' responses of the open-ended question to the quantitative

results summarized from the literature (Spirito et al., 1988), the coping mechanisms that

summarized from the open-ended question could be roughly divided into two categories:

positive coping and negative coping. The positive coping reflected adaptive approaches

that adolescents employed to actively solve SSI issues they were confronted with,

including *seeking social support*, *cognitive strategies*, *positive problem-solving*, and

tension-reduction. The negative strategies of coping were described as maladaptive and avoidant, such as *avoidance*, *ignoring*, *distraction*, and negative *emotion expression* that were extracted from the participants' written answers. Furthermore, the participants' responses provided some specific and unique coping methods that were not fully captured by theoretical conceptualizations. For example, the coping tactic that showed the group conformity (e.g., to act more like popular peers or to befriend with popular peers) was a unique solution that adolescents proposed to soothe the insecurities relevant to peer status. For most of the time, social conformity is a socialized and thus adaptive coping, whereas, it could also be destructive when it causes a social force or pressure. This coping mechanism in response to SSI could bear both positive and negative implications to adolescents (King, 2017). Moreover, some participants brought attention to various hobbies as an effective coping to cope with SSI related issues. Some of the hobbies they listed as examples were very constructive ways to move away from the SSI stressor, such as reading or playing the piano.

Table 7

Categories, Frequencies and Percentages for the Open-Ended Coping Strategies For SSI

Category of the coping strategy	Description	Frequency	Percentage
Seeking Social Support			
Friend Social Support	Talking to, turning to, or being with friends for support	33	29%
Family Social Support	Talking to, turning to, or being with family members for support	18	16%
Other Social Support	Seeking help from professionals (e.g., teachers) or other people	14	12%
Avoidance	Forgetting, withdrawing from, or avoiding thinking about SSI issues	12	11%
Ignoring	Showing a careless or neglecting attitude when having SSI issues	19	17%
Distraction			
Hobbies	Engaging in physical or social activities to move away from the SSI stressor	11	10%
Other Distractions	Directing oneself to other activities to direct from the SSI stressor (e.g., "do what I think is cool")	4	4%
Cognitive Strategies			
Cognitive restructuring	Using self-reassurance, self-persuasion, or self-affirmation strategies to restructure SSI issues into a positive side	18	16%
Acceptance	Acknowledging and accepting the existence of SSI frankly	7	6%
Self-reliance	Strategies involving keeping SSI issues into an independent and self-governing way (e.g., keep it to myself)	5	4%
Problem-solving			
Positive problem-solving	Actively taking actions to solve the SSI issue	13	11%
Conformity	Strategies involving group conformity (e.g., act more like popular peers)	7	6%
Emotional expression			
Negative emotions	Getting upset to vent one's feelings out	3	3%
Extreme emotional reactions	Showing intensive emotional reactions (e.g., scratch my hand to help take the pain away)	3	3%
Tension reduction			
Emotional regulation	Self-regulated attempts to calm down	2	2%
Relaxation	Reducing the tensions by relaxing oneself (e.g., taking a breath)	4	4%
Others	Responses with unspecific meaning (e.g., don't know what to do)	5	4%

Note. Sample size of this open-ended question is based on adolescents who provided valid answers.

Hypothesis II-IV

It is expected that adolescents' experiences from parent-child relationships and peer relationships would impact their insecurities regarding social status. On one hand, victimization and exclusion experiences during peer interactions, and the parent and peer attachment insecurities (e.g., alienation) were hypothesized to be antecedents of SSI. On the other hand, securely attached parent and peer relationships were likely linked with low insecurities regarding peer status. Such hypothesized associations between the antecedents and multiple types of SSI were examined via separate hierarchical multiple regressions with adolescents' attained peer status in popularity, social preference, and general social status serving as moderators. Specifically, the interactions between popularity and each parent and peer antecedents were expected to predict POPSSI. Likewise, the interactions between social preference and every parent and peer antecedent were expected to predict SPSSI. The interactions between general social status and the parent and peer antecedents were expected to predict SSI-G. Once a significant interaction term or a significant main effect of the studying variables (i.e., any types of the antecedents of SSI) occurred, a table was presented to illustrate either the significant interaction or main effect.

Hypothesis II. associations between parent attachment and SSI. To test whether secure or insecure types of parent attachment would spill over to social status insecurity, individual hierarchical multiple regression analyses were conducted with independent variables being one type of the parental attachment (e.g., trust, communication, or alienation, and the overall parent attachment), one type of the attained peer status (e.g., popularity, social preference, and general status), and the interaction

term between the parent attachment and the peer status in each moderation model.

Dependent variables were POPSSI while the moderator was popularity, SPSSI while the

moderator was social preference, and SSI-G while the moderator was general peer status,

respectively. Moreover, in each regression model, participants' gender, grade, and

ethnicity (majority *vs.* minority) were controlled as covariates. Adolescents' grade was

coded as a dummy code (participants in lower grades, such as 6th and 7th grades *vs.*

participants in 8th grade) before entered into the hierarchical regression models. The

distribution of the participants in these three grades (i.e., 24 in 6th grade, 44 in 7th grade,

and 42 in 8th grade) supported such categorization of this control variable. In addition,

continuous variable in each hierarchical regression (e.g., parent trust) were centered before

computing into the interaction terms (Aiken & West, 1991).

Among the control variables, girls reported more POPSSI (βs = .23 to .24, *p*s <. 01),

SPSSI (βs = .30 to .32, *p*s <. 001), and SSI-G (βs = .22 to .23, *p*s <. 05). In addition, lower

popularity status significantly related to more POPSSI across all hierarchical multiple

regression models in Hypothesis II (βs = -.22, *p*s <.05). Lower social preference status

was also significantly related to more SPSSI across hierarchical multiple regression

models in Hypothesis II (βs = -.38 to -.32, *p*s <.001). Likewise, lower social status in

general was linked with more SSI-G across hierarchical multiple regression models in in

Hypothesis II (βs = -.46 to -.44, *p*s <.001). In addition, main effects of some types of

parent attachment were found on three forms of SSI. Specifically, communication with

parents was negatively related to POPSSI (β = -.20, *p* <. 05, R^2 = .16, ΔR^2 = .09, *p* <.01;

see Table 8). On the contrary, alienation with parent was positively related to POPSSI (β

= .33, *p* <. 001, R^2 = .23, ΔR^2 = .16, *p* <.001; see Table 9), SPSSI (β = .21, *p* <. 001, R^2

= .28, ΔR^2 = .19, *p* <.001; see Table 9), and SSI-G (β = .22, *p* <. 01, R^2 = .32, ΔR^2 = .27, *p*

<.001; see Table 9). No interactions between any of the social status types and any of the

parent attachment types were found on adolescent SSI in each model.

Table 8

Hierarchical Multiple Regressions for Predicting POPSSI from Communication in Parent Attachment and Popularity

		POPSSI		
		β	R^2	ΔR^2
Block 1			.07	.07[*]
	Gender	.24[**]		
	Ethnicity	-.11		
	Grade	.04		
Block 2			.16	.09[**]
	Gender	.24[**]		
	Ethnicity	-.11		
	Grade	.05		
	Popularity	-.22[*]		
	PA_Communication	-.20[*]		
Block 3			.16	.002
	Gender	.24[**]		
	Ethnicity	-.11		
	Grade	.06		
	Popularity	-.22[*]		
	PA_Communication	-.19[*]		
	PA_Communication-x Popularity	-.02		

Note. Gender was coded as follows: Boys = 1, Girls = 2.

Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

PA_Communication = Communication in parent attachment.

POPSSI = Social Status Insecurity regarding Popularity.

p < .05. **p* < .01.

Table 9

Hierarchical Multiple Regressions for Predicting SSI from Alienation in Parent Attachment and Social Status

		POPSSI				SPSSI				SSI-G	
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.07	.07*			.09	.09*			.05	.05
Gender	.24**			Gender	.26**			Gender	.19*		
Ethnicity	-.11			Ethnicity	-.13			Ethnicity	-.10		
Grade	.04			Grade	-.06			Grade	.04		
Block 2		.23	.16***			.28	.19***			.32	.27***
Gender	.23**			Gender	.30***			Gender	.21**		
Ethnicity	-.10			Ethnicity	-.11			Ethnicity	-.06		
Grade	.07			Grade	-.04			Grade	.10		
POP	-.22*			SP	-.33***			SS-G	-.44***		
PA_Alien	.33***			PA_Alien	.21*			PA_Alien	.22**		
Block 3		.23	.002			.28	.002			.32	.01
Gender	.23**			Gender	.31***			Gender	.22**		
Ethnicity	-.10			Ethnicity	-.11			Ethnicity	-.06		
Grade	.07			Grade	-.04			Grade	.10		
POP	-.22*			SP	-.32***			SP	-.42***		
PA_Alien	.33***			PA_Alien	.21***			PA_Alien	.23**		
PA_Alien x POP	-.01			PA_Alien x SP	-.04			PA_Alien x SS-G	-.09		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th and 7th grade = 1, 8th grade = 2. POPSSI = Social Status Insecurity regarding Popularity;
POP = Popularity; SPSSI = Social Status Insecurity regarding Social Preference; SP = Social Preference.
SSI-G = Social Status Insecurity regarding general social status; SS-G = General Social Status.
PA_Alien = Alienation in Parent Attachment.
*$p < .05$. **$p < .01$. ***$p < .001$.

Hypothesis III. associations between peer attachment and SSI. Following the similar patterns in Hypothesis II, separate hierarchical multiple regression models were carried out to examine whether each type of peer attachment were predictive to different forms of SSI under the moderating of the attained peer status. In every regression model, independent variables were one type of the peer attachment (e.g., trust, communication, or alienation, and the overall peer attachment), one type of the attained peer status (e.g., popularity, social preference, and general status), and the interaction between the peer attachment and the peer status. Likewise, dependent variables were POPSSI while the moderator was popularity, SPSSI while the moderator was social preference, and SSI-G while the moderator was general peer status, respectively. Control variables were still gender, grade in the dummy code, and ethnicity in the dummy code.

With regard to the main effects of different types of peer attachment, trust has been found to negatively related to SSI-G ($\beta = -.25$, $p <. 05$). In contrast, alienation with peer was a positive predictor of POPSSI ($\beta = .42$, $p <. 001$), SPSSI ($\beta = .18$, $p <. 04$), and SSI-G ($\beta = .30$, $p <. 001$; see Table 10). A marginal significant two-way interaction was found between trust and general peer status when predicting SSI-G ($\beta = -.18$, $p <. 10$, $R^2 = .31$, $\Delta R^2 = .02$, $p <.10$; see Table 11). To further examine how trust in peer attachment was associated with SSI-G under the moderating of adolescent attained peer status, follow-up simple slope analyses were carried out for participants in high, average, and low levels of social status (i.e., participants at $+1$ SD level, mean level, and -1 SD level of social status). The follow-up analyses showed that the higher social status that participants attained, the negative association between trust in peer attachment and SSI-G tended to be stronger ($\beta = -.36$, $SE = .15$, $p <. 05$, at $+ 1$ SD level of general social status;

$\beta = -.24$, $SE = .10$, $p < .05$, at Mean level of general social status; $\beta = -.12$, $SE = .18$, $p =$

n.s., at - 1 *SD* level of general social status; See Figure 2).

Additionally, the interaction between communication in peer attachment and

social preference status significantly predicted SPSSI ($\beta = -.18$, $p < .05$, $R^2 = .28$, ΔR^2

$= .03$, $p < .05$; see Table 12). Though the follow-up simple slope analyses revealed that

communication in peer attachment tended to be positively linked with SPSSI for

adolescents in lower social preference status, but negatively linked with SPSSI when

adolescents' social preference status were relatively high, none of these simple slopes

were significant ($\beta = -.01$, $SE = .14$, $p = n.s.$, at + 1 *SD* level of social preference; $\beta = .13$,

$SE = .08$, $p = n.s.$, at Mean level of social preference; $\beta = .28$, $SE = .20$, $p = n.s.$, at + 1

SD level of social preference; see Figure 3). Other than those reported main effects of

peer attachment and moderating effects of peer status in predicting different types of SSI,

no main effects of the remaining peer attachment or the interaction effects of the other

attained peer status were found in the regression results.

Table 10

Hierarchical Multiple Regressions for Predicting SSI from Alienation in Peer Attachment and Social Status

		POPSSI				SPSSI				SSI-G	
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.08	.08[*]			.10	.10[*]			.05	.05
Gender	.25[**]			Gender	.28[**]			Gender	.20[*]		
Ethnicity	-.12			Ethnicity	-.13			Ethnicity	-.10		
Grade	.03			Grade	-.07			Grade	.03		
Block 2		.30	.22[***]			.27	.17[***]			.35	.30[***]
Gender	.25[**]			Gender	.32[***]			Gender	.23[*]		
Ethnicity	-.04			Ethnicity	-.09			Ethnicity	-.02		
Grade	.06			Grade	-.05			Grade	.09		
POP	-.20[*]			SP	-.34[***]			SS-G	-.43[***]		
PE_Alien	.42[***]			PE_Alien	.18[*]			PE_Alien	.30[***]		
Block 3		.30	.003			.27	.003			.35	.003
Gender	.25[**]			Gender	.32[***]			Gender	.23[**]		
Ethnicity	-.04			Ethnicity	-.09			Ethnicity	-.02		
Grade	.06			Grade	-.05			Grade	.10		
POP	-.20[*]			SP	-.35[***]			SP	-.42[***]		
PE_Alien	.42[***]			PE_Alien	.18[*]			PE_Alien	.30[***]		
PE_Alien x POP	.01			PE_Alien x SP	.05			PE_Alien x SS-G	-.06		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th grade = 1, 7th grade = 2, 8th grade = 3. POPSSI = Social Status Insecurity regarding Popularity;
POP = Popularity; SPSSI = Social Status Insecurity regarding Social Preference; SP = Social Preference.
SSI-G = Social Status Insecurity regarding general social status; SS-G = General Social Status.
PE_Alien = Alienation in Peer Attachment.
*p < .05. **p < .01. ***p < .001.

Table 11

Hierarchical Multiple Regressions for Predicting SSI-G from Trust in Peer Attachment and General Social Status

		SSI-G		
		β	R^2	ΔR^2
Block 1			.05	.05
	Gender	.20*		
	Ethnicity	-.10		
	Grade	.03		
Block 2			.29	.24***
	Gender	.27**		
	Ethnicity	-.03		
	Grade	.12		
	General Social Status	-.41***		
	PE_Trust	-.17+		
Block 3			.31	.02+
	Gender	.26**		
	Ethnicity	-.05		
	Grade	.12		
	General Social Status	-.45***		
	PE_Trust	-.25*		
	General Social Status x PE_Trust	-.18+		

Note. Gender was coded as follows: Boys = 1, Girls = 2.
Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th and 7th grades = 1, 8th grade = 2.
SSI-G = Social Status Insecurity regarding general social status.
PE_Trust = Trust in peer attachment.
 + *p* < .10. **p* < .05. ***p* < .01. ****p* < .001.
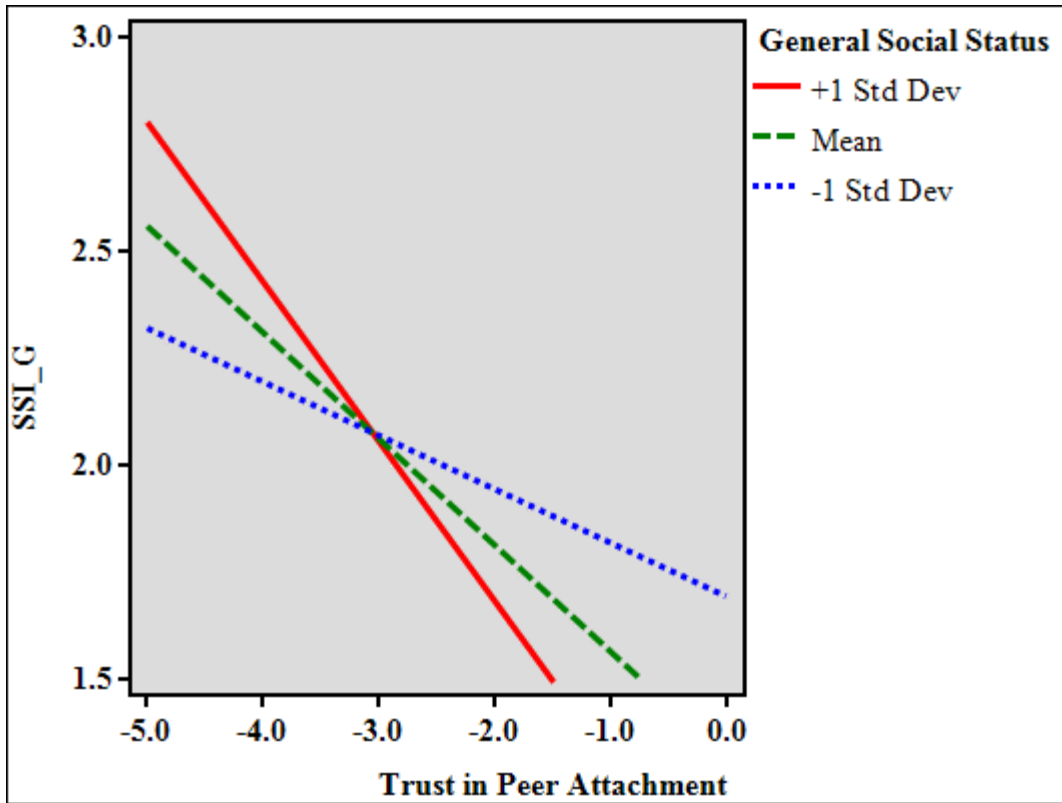
Figure 2. Simple slopes for the interaction effect of Trust in peer attachment and general social status on SSI-G

Table 12

Hierarchical Multiple Regressions for Predicting SPSSI from Communication in Peer Attachment and Social Preference

	SPSSI		
	β	R^2	ΔR^2
Block 1		.10	.10**
Gender	.28**		
Ethnicity	-.13		
Grade	-.07		
Block 2		.25	.15***
Gender	.28**		
Ethnicity	-.13		
Grade	-.05		
Social Preference	-.41***		
PE_Communication	.13		
Block 3		.28	.03*
Gender	.25**		
Ethnicity	-.14		
Grade	-.09		
Social Preference	-.47***		
PE_Communication	.15		
Social Preference x PE_Communication	-.18*		

Note. Gender was coded as follows: Boys = 1, Girls = 2.

Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

PE_Communication = Communication in peer attachment.

SPSSI = Social Preference Social Status Insecurity.

*p < .05. **p < .01. ***p < .001.
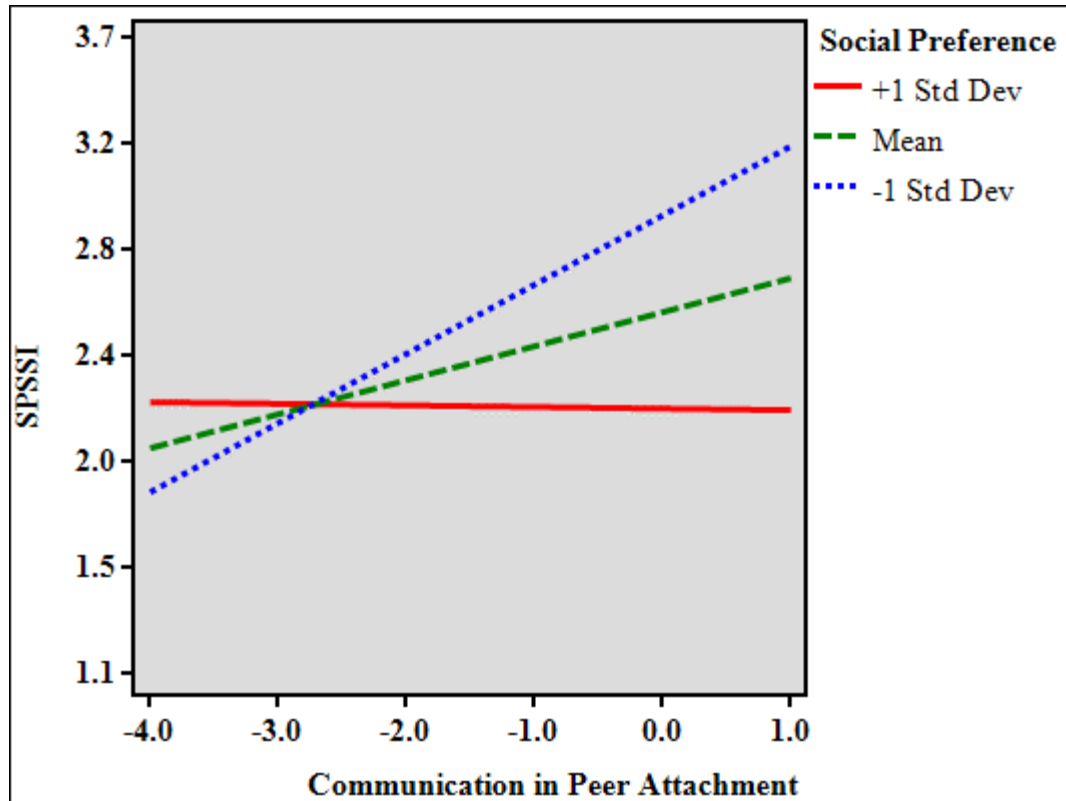
Figure 3. Simple slopes for the interaction effect of communication in peer attachment and social preference on SPSSI

Hypothesis IV. associations between peer victimization and SSI. To examine the

associations between victimization experience under the peer context and adolescents'

insecurities regarding popularity, social preference, and general peer status for

adolescents with different attained social status, another set of hierarchical multiple

regressions were applied. Overt victimization, relational victimization, and the

experience on social exclusion served as independent variables in every regression

model, respectively. Individual moderators were adolescents attained peer status in

popularity, social preference, and general social status. When moderator was popularity,

the dependent variable was POPSSI. When moderator was social preference, the

dependent variable was SPSSI. When moderator was general social status, the dependent

variable was SSI-G. Participants' gender, ethnicity, and grade in the dummy codes were still controlled in each hierarchical multiple regression model.

Above and beyond the effects of gender and attained peer status, such that girls and adolescents in lower attained peer status reported higher levels of three types of SSI, victimization experiences have been found to significantly related to adolescent SSI. Specifically, greater over victimization was associated with both greater SPSSI ($\beta = .29$, $p <. 001$, $R^2 = .31$, $\Delta R^2 = .22$, $p <.001$) and SSI-G ($\beta = .24$, $p <. 01$, $R^2 = .33$, $\Delta R^2 = .28$, $p <.001$; see Table 13). Relational victimization was positively linked with all three types of SSI ($\beta = .27$, $p <. 01$, $R^2 = .19$, $\Delta R^2 = .12$, $p <.001$ for POPSSI; $\beta = .25$, $p <. 01$, $R^2 = .29$, $\Delta R^2 = .20$, $p <.001$ for SPSSI; and $\beta = .34$, $p <. 001$, $R^2 = .38$, $\Delta R^2 = .33$, $p <.001$ for SSI-G; see Table 14). Likewise, victimization experience on social exclusion also yield significantly positive effects to POPSSI ($\beta = .38$, $p <. 001$, $R^2 = .25$, $\Delta R^2 = .18$, $p <.001$), SPSSI ($\beta = .43$, $p <. 001$, $R^2 = .38$, $\Delta R^2 = .29$, $p <.001$), and SSI-G ($\beta = .51$, $p <. 001$, $R^2 = .48$, $\Delta R^2 = .44$, $p <.001$; see Table 15). No significant interactions between any type of peer victimization and a certain attained peer status were found in this set of regression models, indicating that adolescent social status in popularity, social preference, or in general did not significantly moderate the associations between peer victimization and any types of SSI

Table 13

Hierarchical Multiple Regressions for Predicting SSI from Overt Victimization and Social Status

		SPSSI					SSI-G		
		β	R^2	ΔR^2			β	R^2	ΔR^2
Block 1			.09	.09[*]				.05	.05
	Gender	.26[**]				Gender	.19[*]		
	Ethnicity	-.13				Ethnicity	-.10		
	Grade	-.06				Grade	.04		
Block 2			.31	.22[***]				.33	.28[***]
	Gender	.32[***]				Gender	.24[**]		
	Ethnicity	-.11				Ethnicity	-.06		
	Grade	-.05				Grade	.08		
	Social Preference	-.31[***]				General Social Status	-.42[***]		
	OV	.29[***]				OV	.24[**]		
Block 3			.31	.002				.33	.002
	Gender	.32[***]				Gender	.23[**]		
	Ethnicity	-.11				Ethnicity	-.06		
	Grade	-.05				Grade	.08		
	Social Preference	-.30[***]				General Social Status	-.43[***]		
	OV	.28[**]				OV	.25[**]		
	Social Preference x OV	-.04				General Social Status x OV	.04		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2. Grade was coded as 6th and 7th grades = 1, 8th grade = 2. SPSSI = Social Preference Social Status Insecurity. SSI-G = Social Status Insecurity regarding general social status. OV = Overt Victimization.

*p < .05. **p < .01. ***p < .001.

Table 14

Hierarchical Multiple Regressions for Predicting SSI from Relational Victimization and Social Status

		POPSSI				SPSSI				SSI-G		
		β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1			.07	.07*			.09	.09*			.05	.05
	Gender	.24**			Gender	.26**			Gender	.19*		
	Ethnicity	-.11			Ethnicity	-.13			Ethnicity	-.10		
	Grade	.04			Grade	-.06			Grade	.04		
Block 2			.19	.12***			.29	.20***			.38	.33***
	Gender	.23**			Gender	.30***			Gender	.21**		
	Ethnicity	-.10			Ethnicity	-.12			Ethnicity	-.07		
	Grade	.05			Grade	-.05			Grade	.07		
	POP	-.19*			SP	-.32***			SS-G	-.40***		
	RV	.27**			RV	.25**			RV	.34***		
Block 3			.20	.002			.30	.01			.38	.01
	Gender	.23**			Gender	.30***			Gender	.21**		
	Ethnicity	-.11			Ethnicity	-.12			Ethnicity	-.06		
	Grade	.05			Grade	-.05			Grade	.07		
	POP	-.19*			SP	-.30**			SS-G	-.39***		
	RV	.28**			RV	.22**			RV	.32***		
	POP x RV	.05			SP x RV	-.12			SS-G x RV	-.07		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th and 7th grades = 1, 8th grade = 2. POPSSI = Social Status Insecurity regarding Popularity;
POP = Popularity; SPSSI = Social Status Insecurity regarding Social Preference; SP = Social Preference.
SSI-G = Social Status Insecurity regarding general social status; SS-G = General Social Status. RV = Relational Victimization
*p < .05. **p < .01. ***p < .001.

Table 15

Hierarchical Multiple Regressions for Predicting SSI from Social Exclusion and Social Status

	POPSSI				SPSSI				SSI-G		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.07	.07*			.09	.09*			.05	.05
Gender	.24**			Gender	.26**			Gender	.19*		
Ethnicity	-.11			Ethnicity	-.13			Ethnicity	-.10		
Grade	.04			Grade	-.06			Grade	.04		
Block 2		.25	.18***			.38	.29***			.48	.44***
Gender	.24**			Gender	.28***			Gender	.21**		
Ethnicity	-.06			Ethnicity	-.08			Ethnicity	-.03		
Grade	.07			Grade	-.03			Grade	.09		
POP	-.11			SP	-.19*			SS-G	-.25**		
Exclusion	.38***			Exclusion	.43***			Exclusion	.51***		
Block 3		.25	.001			.38	.001			.48	.001
Gender	.24**			Gender	.29***			Gender	.21**		
Ethnicity	-.07			Ethnicity	-.08			Ethnicity	-.03		
Grade	.07			Grade	-.03			Grade	.09		
POP	-.12			SP	-.18*			SS-G	-.25**		
Exclusion	.39***			Exclusion	.42***			Exclusion	.51***		
POP x Exclusion	.04			SP x Exclusion	-.03			SS-G x Exclusion	-.01		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2. Grade was coded as 6th and 7th grades = 1, 8th grade = 2. POPSSI = Social Status Insecurity regarding Popularity; POP = Popularity; SPSSI = Social Status Insecurity regarding Social Preference; SP = Social Preference. SSI-G = Social Status Insecurity regarding general social status; SS-G = General Social Status.

*$p < .05$. **$p < .01$. ***$p < .001$.

Hypothesis V - IX

This set of hypotheses covered the potential implications of multiple types of SSI (i.e., POPSSI, SPSSI, and SSI-G) on a range of developmental areas, including social behaviors (e.g., prosocial and aggressive behavior), social adjustment and mental health indicators (e.g., anxiety, depressive symptoms, and social withdrawal), subjective physical health, interpersonal relationships, and academic performance. It is proposed that greater levels of insecurities regarding various types of peer status would negatively impact adolescents' social behaviors, mental and physical health, social relationships, and academics. Furthermore, to probe whether the actual peer standing that adolescents attained played roles in the associations between forms of SSI and the above-listed developmental outcomes, separate hierarchical multiple regression for each developmental outcome. Each included gender, ethnicity, and grade in dummy codes as control variables in Block 1, one form of SSI in Block 2, and the interaction between a certain type of the social status and the insecurity regarding this social status in Block 3. If any significant interaction term occurred, separate follow-up regressions for different levels of the attained social status (at +1 *SD* level, mean level, and -1 *SD* level of social status) were conducted to evaluate the impacts of certain SSI on the developmental outcome, with gender, ethnicity, and grade as covariates. In the popularity as a moderator models, the independent variable was POPSSI. In the social preference as a moderator models, the independent variable was SPSSI. In the general social status as a moderator models, the independent variable was SSI-G. Once a significant interaction term or a significant main effect of the studying variables (i.e., any types of the SSI) occurred, a table was presented to illustrate either the significant interaction or main effect.

Hypothesis V. associations between SSI and social behavior. To investigate the associations between adolescent SSI in three forms and various social behaviors, and to further prober whether adolescent attained peer status in different forms moderated such associations, a series of separate hierarchical multiple regressions were conducted. In those regression model sets, dependent variables were overt aggression, relational aggression, and prosocial behavior, respectively. When POPSSI was independent variable, the moderator was popularity. When SPSSI was independent variable, the moderator was social preference. When SSI-G was independent variable, the moderator was general social status of adolescents. in each regression model. Gender, ethnicity, and grade in dummy codes were controlled as covariate in every regression analysis.

For overt aggression, results of the control variable revealed that adolescents in 8th grader reported more overt aggression than their counterparts in relatively lower grades (i.e., 6th and 7th grades; $\beta = .19$, $p < .05$). The main effects revealed that three types of SSI were significant predictors of over aggression (see Table 16). In the popularity model, the analysis yielded significant and positive effects of both popularity ($\beta = .21$, $p < .05$) and POPSSI ($\beta = .23$, $p < .05$, $R^2 = .09$, $\Delta R^2 = .08$, $p < .05$) to overt aggression, indicating that adolescents with higher popularity status or had greater insecurity regarding popularity tended to show more overt aggression. Similarly, in the social preference model, SPSSI has also been found to significantly and positively related to over aggression ($\beta = .29$, $p < .01$, $R^2 = .10$, $\Delta R^2 = .06$, $p < .05$). As for the general social status model, both the general social status of adolescents ($\beta = .26$, $p < .05$) and SSI-G ($\beta = .35$, $p < .01$, $R^2 = .13$, $\Delta R^2 = .10$, $p < .01$) were significantly linked with over aggression.

Significant two-way interactions were not found between any of the social status and any type of the SSI in predicting overt aggression.

For relational aggression, main effects also yielded significant associations between three types of SSI and relational aggression (see Table 17). Specifically, in the popularity model, adolescent POPSSI ($\beta = .42$, $p <. 001$, $R^2 = .20$, $\Delta R^2 = .16$, $p <.001$) and popularity status ($\beta = .23$, $p <.05$) were significant predictors of relational aggression, indicating that adolescents with higher popularity status or had greater insecurity regarding popularity tended to show more relational aggression. Likewise, SPSSI was found to positively and significantly link with relational aggression ($\beta = .31$, $p <. 01$, $R^2 = .12$, $\Delta R^2 = .08$, $p <.01$) in the social preference model. In the general social status model, SSI-G was significantly and positively related to relational aggression ($\beta = .37$, $p <. 001$, $R^2 = .14$, $\Delta R^2 = .10$, $p <.01$). Moderating effects of any of the three social statuses were not found in the associations between any type of the SSI and relational aggression.

For prosocial behavior, girls reported relatively more prosocial behavior than boys (βs $= .19$ to $.25$, ps $< .05$). In terms of the relations between social status and prosocial behavior, adolescents wither higher peer status reported more prosocial behavior overall ($\beta = .52$, $p<.001$ for popularity status, $\beta = .49$, $p<.001$ for social preference status, and $\beta = .56$, $p<.001$ for general social status). Moderating effects of any of the three social statuses were not found in the associations between any type of the SSI and prosocial behavior. Also, no main effect of any forms of SSI on adolescents' prosocial behavior was found.

Table 16

Hierarchical Multiple Regressions for Predicting Overt Aggression from SSI and Social Status

	Overt Aggression				Overt Aggression				Overt Aggression		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.02	.02			.04	.04			.04	.04
Gender	.06			Gender	.06			Gender	.06		
Ethnicity	.03			Ethnicity	.03			Ethnicity	.03		
Grade	.19*			Grade	.19*			Grade	.19*		
Block 2		.09	.08**			.10	.06*			.13	.10**
Gender	-.10			Gender	-.06			Gender	-.04		
Ethnicity	.04			Ethnicity	.04			Ethnicity	.04		
Grade	.14			Grade	.20*			Grade	.13		
POP	.21*			SP	.12			SS-G	.26*		
POPSSI	.23*			SPSSI	.29**			SPSSI	.35**		
Block 3		.09	.002			.10	.002			.13	.002
Gender	-.01			Gender	-.04			Gender	-.04		
Ethnicity	.04			Ethnicity	.06			Ethnicity	.04		
Grade	.13			Grade	.19*			Grade	.13		
POP	.20*			SP	.13			SS-G	.25*		
POPSSI	.23*			SPSSI	.28**			SPSSI	.36**		
POP x POPSSI	.05			SP x SPSSI	.05			SS-G x SSI-G	.01		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th and 7th grades = 1, 8th grade = 2. POP = Popularity, POPSSI = Social Status Insecurity regarding Popularity;
SP = Social Preference, SPSSI = Social Preference Social Status Insecurity;
SS-G = General Social Status, SSI-G = Social Status Insecurity regarding general social status.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 17

Hierarchical Multiple Regressions for Predicting Relational Aggression from SSI and Social Status

	Relational Aggression				Relational Aggression				Relational Aggression		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.04	.04			.04	.04			.04	.04
Gender	.06			Gender	.06			Gender	.06		
Ethnicity	-.08			Ethnicity	-.08			Ethnicity	-.08		
Grade	.18			Grade	.18			Grade	.18		
Block 2		.20	.16***			.12	.08**			.14	.10**
Gender	-.06			Gender	-.02			Gender	-.03		
Ethnicity	-.06			Ethnicity	-.05			Ethnicity	-.06		
Grade	.11			Grade	.19*			Grade	.13		
POP	.23*			SP	.00			SS-G	.18		
POPSSI	.42***			SPSSI	.31**			SPSSI	.37***		
Block 3		.20	.003			.14	.02			.14	.003
Gender	-.06			Gender	-.01			Gender	-.03		
Ethnicity	-.06			Ethnicity	-.04			Ethnicity	-.06		
Grade	.10			Grade	.20*			Grade	.13		
POP	.22*			SP	-.04			SS-G	.18		
POPSSI	.42***			SPSSI	.32**			SPSSI	.37**		
POP x POPSSI	.02			SP x SPSSI	.14			SS-G x SSI-G	.01		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2. Grade was coded as 6th and 7th grades = 1, 8th grade = 2. POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity; SP = Social Preference; SPSSI = Social Preference Social Status Insecurity; SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.

*p < .05. **p < .01. ***p < .001.

Hypothesis VI. associations between SSI and adjustment difficulties. The

hypothesized associations between SSI and multiple maladjustments under the probable

moderating of attained peer status were examined via separate hierarchical multiple

regressions. In particular, dependent variables were depressive symptoms, social anxiety,

and social withdrawal, respectively in each regression set. Likewise, when POPSSI was

independent variable, the moderator was popularity. When SPSSI was independent

variable, the moderator was social preference. When SSI-G was independent variable, the

moderator was general social status of adolescents in each regression model. Gender,

ethnicity, and grade in the dummy codes were still served as control variables in every

regression analysis.

The results of the regression models revealed a general tendency such that lower

peer status was related to higher levels of depressive symptoms. Specifically, lower

social status in popularity ($\beta = -.17$, $p<.05$), social preference ($\beta = -.36$, $p<.001$), and in

general ($\beta = -.20$, $p<.05$) predicted higher depressive symptoms. In terms of the main

effects of SSI in three forms, all of them were significantly and positively associated with

depressive symptoms ($\beta = .43$, $p<.001$ for POPSSI; $\beta = .36$, $p<.001$ for SPSSI; $\beta = .47$,

$p<.001$ for SSI-G). A marginal significant two-way interaction between social preference

and SPSSI was found to be linked with depressive symptoms ($\beta = .13$, $p <. 10$, $R^2 = .41$,

$\Delta R^2 = .02$, $p <.10$; see Table 18). Follow-up regressions revealed that the positive

association between SPSSI and depressive symptoms tended to be stronger when

adolescents were in lower social preference status than in higher social preference status

($\beta =.21$, $SE = .08$, $p<.001$. at -1 SD of social preference; $\beta = .16$, $SE = .04$, $p<.001$. at

mean level of social preference; $\beta = .10$, $SE = .06$, $p = n.s.$ at +1 SD level of social

preference; see Figure 4).

For social anxiety, girls reported experiencing greater levels of anxiety (βs = .17

to .18, ps < .05 through social preference and general social status models, respectively).

In general, adolescents with lower peer status in three forms reported more anxiety ($\beta =$

-.27, $p<.001$ for popularity to anxiety; $\beta = -.36$, $p<.001$ for social preference to anxiety;

and $\beta = -.26$, $p<.01$ for general social status to anxiety). Main effects of SSI in three

forms indicated that adolescents with higher levels of POPSSI ($\beta = .50$, $p <. 001$, R^2

$= .44$, $\Delta R^2 = .37$, $p <.001$), SPSSI ($\beta = .45$, $p <. 001$, $R^2 = .51$, $\Delta R^2 = .44$, $p <.001$) and

SSI-G ($\beta = .52$, $p <. 001$, $R^2 = .52$, $\Delta R^2 = .45$, $p <.01$; see Table 19) were all reported to

suffer from greater anxiety. No significant interactions were obtained in examining any

type of the peer status as potentially moderating the relations between any form of SSI

and anxiety.

Table 18

Hierarchical Multiple Regressions for Predicting Depressive Symptoms from SSI and Social Status

	Depressive Symptoms				Depressive Symptoms				Depressive Symptoms		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.05	.05			.05	.05			.05	.05
Gender	.14			Gender	.14			Gender	.14		
Ethnicity	-.10			Ethnicity	-.10			Ethnicity	-.10		
Grade	-.15			Grade	-.15			Grade	-.15		
Block 2		.29	.23***			.40	.34***			.39	.34***
Gender	.04			Gender	.10			Gender	.06		
Ethnicity	-.03			Ethnicity	-.04			Ethnicity	-.03		
Grade	-.14			Grade	-.10			Grade	-.14		
POP	-.17*			SP	-.36***			SS-G	-.20*		
POPSSI	.43***			SPSSI	.36***			SSI-G	.47***		
Block 3		.29	.002			.41	.02+			.39	.002
Gender	.04			Gender	.09			Gender	.07		
Ethnicity	-.03			Ethnicity	-.05			Ethnicity	-.03		
Grade	-.14			Grade	-.11			Grade	-.14		
POP	-.18*			SP	-.32***			SS-G	-.19*		
POPSSI	.43***			SPSSI	.35***			SPSSI	.47***		
POP x POPSSI	.02			SP x SPSSI	-.13+			SS-G x SSI-G	-.04		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2. POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity;

SP = Social Preference; SPSSI = Social Preference Social Status Insecurity;

SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.

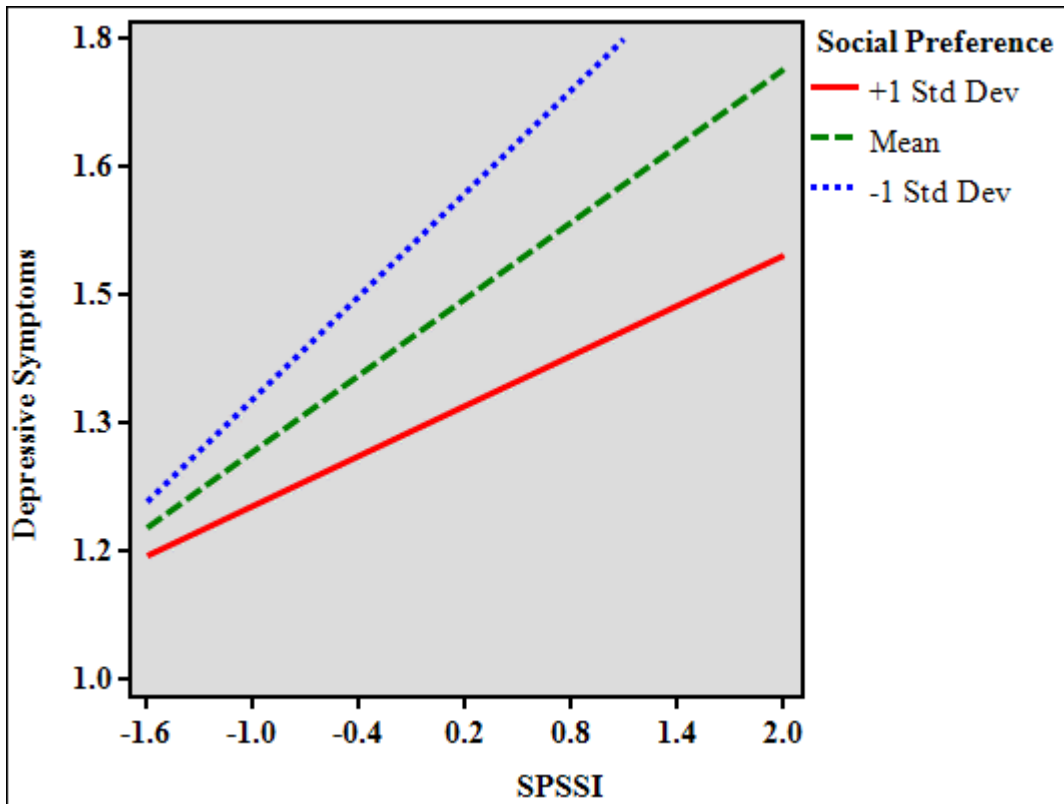$+ p < .10.$ $*p < .05.$ $**p < .01.$ $***p < .001.$

Figure 4. Simple slopes for the interaction effect of SPSSI and social preference on depressive symptoms

Table 19

Hierarchical Multiple Regressions for Predicting Anxiety from SSI and Social Status

	Anxiety				Anxiety				Anxiety		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.07	.07*			.07	.07*			.07	.07*
Gender	.25**			Gender	.25**			Gender	.25**		
Ethnicity	-.09			Ethnicity	-.09			Ethnicity	-.09		
Grade	.003			Grade	.003			Grade	.003		
Block 2		.44	.37***			.51	.44***			.52	.45***
Gender	.13			Gender	.18*			Gender	.17*		
Ethnicity	.003			Ethnicity	-.01			Ethnicity	-.01		
Grade	.03			Grade	.06			Grade	.02		
POP	-.27***			SP	-.36***			SS-G	-.26**		
POPSSI	.50***			SPSSI	.45***			SPSSI	.52***		
Block 3		.44	.003			.51	.01			.52	.004
Gender	.13			Gender	.18*			Gender	.17*		
Ethnicity	.002			Ethnicity	-.02			Ethnicity	-.01		
Grade	.03			Grade	.05			Grade	.03		
POP	-.28***			SP	-.33***			SS-G	-.28***		
POPSSI	.50***			SPSSI	.44***			SPSSI	.53***		
POP x POPSSI	.06			SP x SPSSI	-.09			SS-G x SSI-G	.07		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grade = 1, 8th grade = 2. POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity;

SP = Social Preference; SPSSI = Social Preference Social Status Insecurity;

SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.

*p < .05. **p < .01. ***p < .001.

In the hierarchical multiple regression models testing the associations between SSI in three forms and adolescent social withdrawal, results of the control variables showed a tendency that ethnical minorities (i.e., non-White adolescents) reported greater social withdrawal through those regression models (βs = .16 to .17, ps < .05). Adolescents who were in lower popularity, social preference, and general social status also reported having higher social withdrawal (β = -.27, p<.01 for popularity to social withdrawal; β = -.43, p<.001 for social preference to social withdrawal; and β = -.30, p<.01 for general social status to social withdrawal). Main effects of three forms of SSI to social withdrawal indicated that POPSSI and SSI-G were significant predictor of social withdrawal (β = .20, p<.05, R^2 = .17, ΔR^2 = .13, p < .001 for POPSSI; β = .31, p< .01, R^2 = .28, ΔR^2 = .26, p <.001 for SSI-G). Additionally, a significant two-way interaction between SPSSI and social preference status was found when predicting social withdrawal (β = .17, p<.05, R^2 = .30, ΔR^2 = .03, p <.05; see Table 20). Follow-up regressions showed a tendency that the association between SPSSI and social withdrawal were stronger while adolescents were in relatively higher social presence status than in lower social preference status (β = .02, SE = .21, p = $n.s.$ at -1 SD of social preference; β = .18, SE = .09, p = $n.s.$ at mean level of social preference; β = .34, SE = .15, p <.05 at +1 SD level of social preference; see Figure 5).

Table 20

Hierarchical Multiple Regressions for Predicting Social Withdrawal from SSI and Social Status

	Social Withdrawal				Social Withdrawal				Social Withdrawal		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.04	.04			.03	.03			.03	.03
Gender	-.11			Gender	-.11			Gender	-.11		
Ethnicity	.11			Ethnicity	.11			Ethnicity	.11		
Grade	-.06			Grade	-.06			Grade	-.06		
Block 2		.17	.13***			.27	.25***			.28	.26***
Gender	-.16			Gender	-.09			Gender	-.15		
Ethnicity	.17*			Ethnicity	.15			Ethnicity	.17*		
Grade	-.03			Grade	-.02			Grade	-.04		
POP	-.27**			SP	-.43***			SS-G	-.30**		
POPSSI	.20*			SPSSI	.15			SSI-G	.31**		
Block 3		.18	.01			.30	.03*			.28	.001
Gender	-.16			Gender	-.08			Gender	-.15		
Ethnicity	.17*			Ethnicity	.16*			Ethnicity	.17*		
Grade	-.04			Grade	-.01			Grade	-.04		
POP	-.29**			SP	-.48***			SS-G	-.28**		
POPSSI	.20*			SPSSI	.17			SSI-G	.30**		
POP x POPSSI	.10			SP x SPSSI	.17*			SS-G x SSI-G	-.04		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th and 7th grades = 1, 8th grade = 2. POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity;
SP = Social Preference; SPSSI = Social Preference Social Status Insecurity;
SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.
*$p < .05$. **$p < .01$. ***$p < .001$.
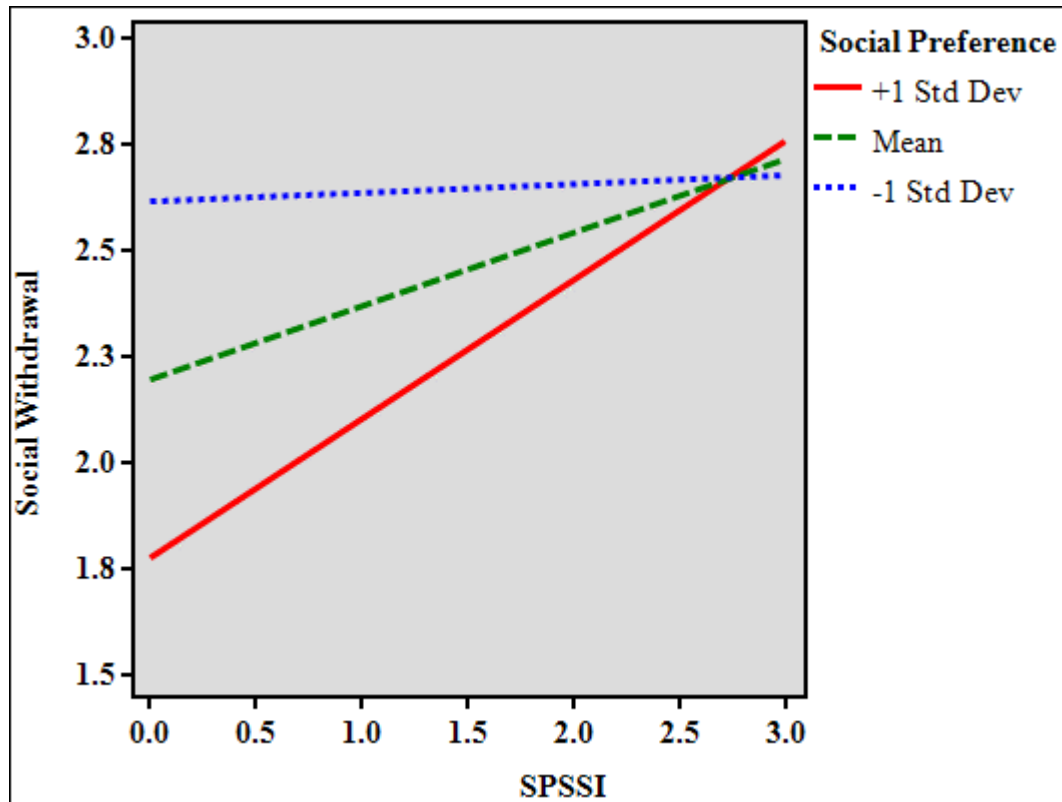
Figure 5. Simple slopes for the interaction effect of SPSSI and social preference on social withdrawal

Hypothesis VII. associations between SSI and social relationship

dissatisfaction. A group of individual hierarchical multiple regression models were

carried out to examine how three types of SSI related to adolescent dissatisfaction

regarding social relationships under the potential moderating of three forms of social

status, respectively. Specifically, in the popularity model, the independent variable was

POPSSI and the moderator was popularity. In the social preference model, the

independent variable was SPSSI and the moderator was social preference. In the general

social status model, the independent variable was SSI-G and the moderator was general

social status. The dependent variable in every model was social relationship

dissatisfaction. Covariates were still gender, ethnicity, and grade in the dummy codes.

The analyses revealed that with higher peer status in all three forms, namely,

popularity, social preference, and general social status, adolescents reported less

dissatisfaction pertinent to social relationships (β = -.58, p<.001 for popularity; β = -.76,

p<.001 for social preference; and β = -.68, p<.001 for general social status) above and

beyond the effects of all control variables. In addition, both POPSSI and SSI-G showed

significant and positive main effects to social relationship dissatisfaction. When

adolescents experienced more POPSSI, they also reported more dissatisfaction regarding

social relationships (β = .17, p<.05, R^2 = .42, ΔR^2 = .40, p <.001). Higher levels of SSI-G

of adolescents were also positively linked with greater social relationship dissatisfaction

(β = .19, p<.01, R^2 = .62, ΔR^2 = .60, p <.001; see Table 21).

Table 21

Hierarchical Multiple Regressions for Social Relationship Dissatisfaction from SSI and Social Status

	Relationship Dissatisfaction				Relationship Dissatisfaction		
	β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.02	.02			.02	.02
Gender	-.09			Gender	-.09		
Ethnicity	-.13			Ethnicity	-.13		
Grade	-.02			Grade	-.02		
Block 2		.42	.40***			.62	.60***
Gender	-.12			Gender	-.08		
Ethnicity	-.02			Ethnicity	-.04		
Grade	.08			Grade	.01		
POP	-.58***			SS-G	-.68***		
POPSSI	.17*			SSI-G	.19**		
Block 3		.43	.001			.62	.001
Gender	-.12			Gender	-.06		
Ethnicity	-.03			Ethnicity	-.03		
Grade	.07			Grade	.07		
POP	-.59***			SS-G	-.68***		
POPSSI	.17*			SSI-G	.19**		
POP x POPSSI	.03			SS-G x SSI-G	-.01		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2. Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity;

SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.

*p < .05. **p < .01. ***p < .001.

Hypothesis VIII. associations between SSI and academic performance. To investigate relations between different forms of SSI and adolescents' academic performance, separate hierarchical multiple regression for each academic performance variable were carried out. Dependent variables were Grade Point Average (GPA), self-reported general grades, and self-rated satisfaction regarding academic performance in each regression model. When POPSSI was independent variable, the moderator was popularity. When SPSSI was independent variable, the moderator was social preference. When SSI-G was independent variable, the moderator was general social status of adolescents. in each regression model. Gender, ethnicity, and grade in the dummy codes were still covariates in all regression analyses in this hypothesis set.

For self-reported GPA as the dependent variable models, girls generally reported obtaining higher GPA than boys (βs = .25 to .29, ps<.05). The two-way interaction between SPSSI and social preference status was found to near significantly related to GPA (β = .18, p<.10, R^2 = .10, ΔR^2 = .03, p <.10; see Table 22). Follow-up analysis on the simple slopes revealed that the higher social preference status that adolescent attained, the positive association between SPSSI and self-reported GPA tended to be stronger, though none of the simple slope lines were significant (β = -.03, SE = .26, p = *n.s.* at -1 SD of social preference; β = .15, SE = .12, p = *n.s.* at mean level of social preference; β = .33, SE = .19, p = *n.s.* at +1 *SD* level of social preference; See Figure 6).

Table 22

Hierarchical Multiple Regressions for Predicting Self-reported GPA from Social Preference and SPSSI

		Self-reported GPA		
		β	R^2	ΔR^2
Block 1			.09	.09*
	Gender	.29**		
	Ethnicity	-.02		
	Grade	-.05		
Block 2			.12	.03**
	Gender	.23*		
	Ethnicity	-.01		
	Grade	-.05		
	Social Preference	.16		
	SPSSI	.11		
Block 3			.10	.03+
	Gender	.25*		
	Ethnicity	-.001		
	Grade	-.01		
	Social Preference	.10		
	SPSSI	.13		
	Social Preference x SPSSI	.18+		

Note. Gender was coded as follows: Boys = 1, Girls = 2.

Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

SPSSI = Social Status Insecurity regarding Social Preference.

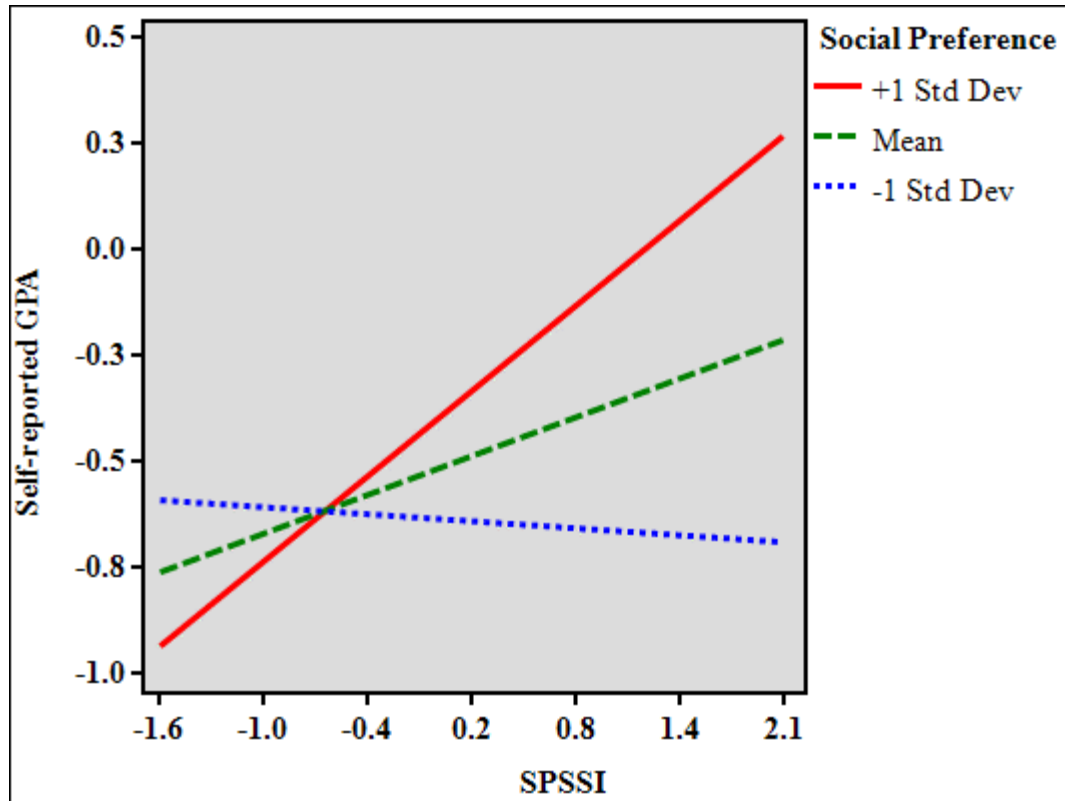 + $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Figure 6. Simple slopes for the interaction effect of SPSSI and social preference on self-reported GPA

For self-evaluated course grade in academic performance, adolescents who had higher SPSSI reported higher self-evaluated general grades ($\beta = .26$, $p<.05$). Moreover, a significant SPSSI by social preference interaction was found for self-reported general academic grade ($\beta = .26$, $p<.01$, $R^2 = .15$, $\Delta R^2 = .06$, $p<.01$; see Table 23). The follow-up simple slopes reflected that the relation between SPSSI and self-reported general academic grade tended to become stronger with increased social preference status ($\beta = .04$, $SE = .25$, $p = n.s.$ at -1 SD of social preference; $\beta = .30$, $SE = .12$, $p<.05$ at mean level of social preference; $\beta = .57$, $SE = 18$, $p<.01$. at +1 *SD* level of social preference; see Figure 7).

Table 23

Hierarchical Multiple Regressions for Predicting Self-evaluated Academic Grade from Social Preference and SPSSI

		Self-evaluated Grade		
		β	R^2	ΔR^2
Block 1			.05	.05
	Gender	.20*		
	Ethnicity	.07		
	Grade	.07		
Block 2			.09	.05
	Gender	.11		
	Ethnicity	.09		
	Grade	.07		
	Social Preference	.17		
	SPSSI	.23*		
Block 3			.15	.06**
	Gender	.13		
	Ethnicity	.11		
	Grade	.09		
	Social Preference	.09		
	SPSSI	.26*		
	Social Preference x SPSSI	.26**		

Note. Gender was coded as follows: Boys = 1, Girls = 2.

Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

SPSSI = Social Status Insecurity regarding Social Preference.

 *$p < .05$. **$p < .01$.
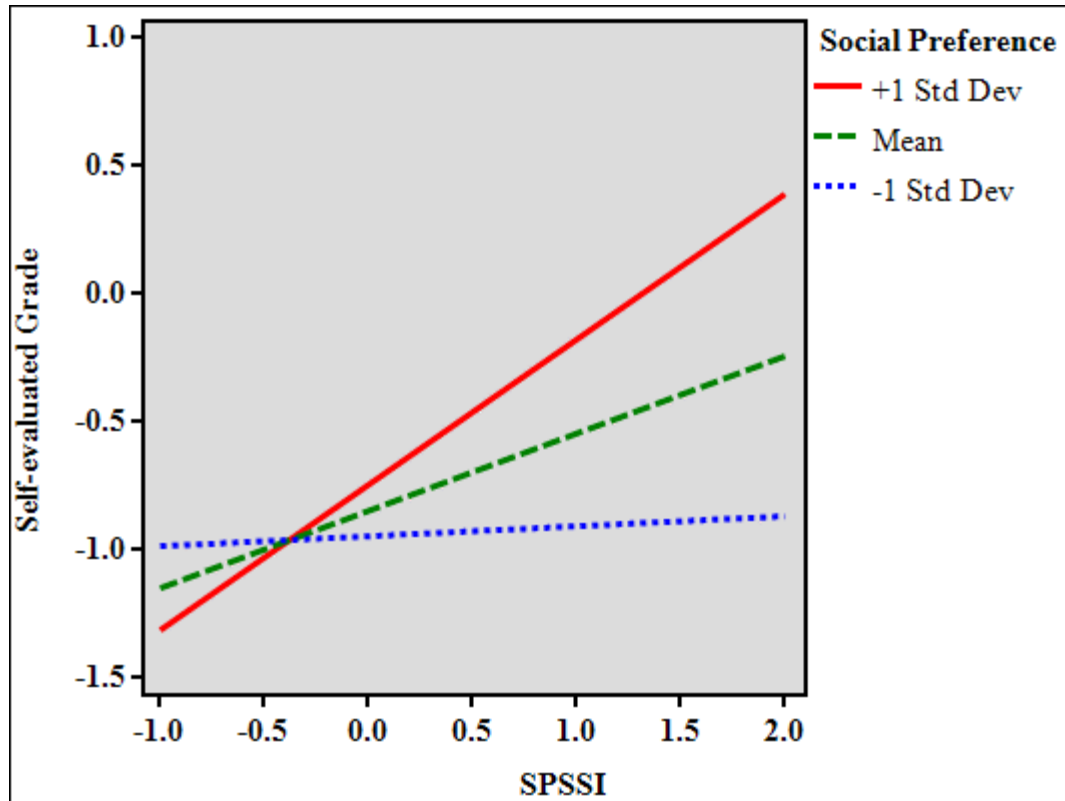
Figure 7. Simple slopes for the interaction effect of SPSSI and social preference on self-evaluated Grade

For the satisfaction about academic performance, the analyses yielded a significant main effect of SSI-G towards academic satisfaction, indicating that the more insecurity adolescents felt pertinent to their general social status, the less satisfaction they had about their academic performance (β = -.24, p<.05, R^2 = .06, $\varDelta R^2$ = .05, p <.01; see Table 24).

Table 24

Hierarchical Multiple Regressions for Predicting Academic Satisfaction from general social status and SSI-G

		Academic Satisfaction		
		β	R^2	ΔR^2
Block 1			.01	.01
	Gender	.04		
	Ethnicity	.01		
	Grade	-.09		
Block 2			.06	.05[*]
	Gender	.09		
	Ethnicity	-.01		
	Grade	-.08		
	General Social Status	-.02		
	SSI-G	-.24[*]		
Block 3			.07	.01
	Gender	.09		
	Ethnicity	-.01		
	Grade	-.08		
	General Social Status	-.01		
	SSI-G	-.25[*]		
	General Social Status x SSI-G	-.08		

Note. Gender was coded as follows: Boys = 1, Girls = 2.

Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

SSI-G = Social Status Insecurity regarding general social status;

 *p < .05. **p < .01.

Hypothesis IX. associations between SSI and health. To examine the relations between different forms of SSI and multiple health indicators, another series of hierarchical multiple regressions were conducted. Dependent variables of those regressions were adolescents' health complaints, self-evaluation on subjective health, and sleep problems. In the popularity model, the independent variable was POPSSI and the moderator was popularity. In the social preference model, the independent variable was SPSSI and the moderator was social preference. In the general social status model, the independent variable was SSI-G and the moderator was general social status. Adolescents' gender, ethnicity, and grade in the dummy codes were still controlled as covariates in each regression model.

For health complaint, the multiple regression results show that girls reported more complaints regarding health across popularity, social preference, and general social status models (βs = .25 to .32, ps<.01). Main effects also revealed that adolescents' SPSSI and SSI-G significantly and positively contributed to health complaints (β =.25, $p<.05$, R^2 = .18, ΔR^2 = .07, p <.05 for SPSSI; β = .34, $p<.001$, R^2 = .22, ΔR^2 = .11, p <.01 for SSI-G; see Table 25). No significant interactions were found between any types of SSI and corresponding social status in predicting health complaints.

Table 25

Hierarchical Multiple Regressions for Health Complaints from SSI and Social Status

	Health Complaints				Health Complaints		
	β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.12	.12**			.12	.12**
Gender	.32**			Gender	.32**		
Ethnicity	-.10			Ethnicity	-.10		
Grade	.15			Grade	.15		
Block 2		.18	.07*			.22	.11**
Gender	.26**			Gender	.25**		
Ethnicity	-.07			Ethnicity	-.10		
Grade	.16			Grade	.13		
SP	-.04			SS-G	.02		
SPSSI	.25*			SSI-G	.34***		
Block 3		.18	.001			.24	.01
Gender	.26**			Gender	.25**		
Ethnicity	-.06			Ethnicity	-.07		
Grade	.17			Grade	.14		
SP	-.05			SS-G	-.02		
SPSSI	.25*			SPSSI	.36***		
SP x SPSSI	.03			SS-G x SSI-G	.13		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

SP = Social Preference; SPSSI = Social Status Insecurity regarding Social Preference;

SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.

p < .05. **p* < .01. ***p* < .001.

For adolescents' self-evaluation on subjective health, the effects found in social status indicated that social preference ($\beta =.33$, $p<.01$) was positively related to subjective health. Furthermore, the analysis yielded a significant effect for SSI-G by general social status interaction on subjective health ($\beta =-.30$, $p<.01$, $R^2 = .16$, $\Delta R^2 = .07$, $p <.01$; see Table 26). Follow-up analyses revealed that the negative association between SSI-G and subjective health became stronger when adolescents were in relatively higher general social status ($\beta = .18$, $SE = .19$, $p = n.s.$ at -1 SD of general social status; $\beta = -.06$, $SE = .09$, $p = n.s.$ at mean level of general social status; $\beta = -.30$, $SE = .15$, $p < .05$. at +1 SD level of general social status; see Figure 8).

Table 26

Hierarchical Multiple Regressions for Predicting Subjective Health from General Social Status and SSI-G

		Subjective Health		
		β	R^2	ΔR^2
Block 1			.02	.02
	Gender	-.06		
	Ethnicity	.14		
	Grade	.04		
Block 2			.09	.06*
	Gender	-.08		
	Ethnicity	.11		
	Grade	.01		
	General social status	.24*		
	SSI-G	-.02		
Block 3			.16	.07**
	Gender	-.08		
	Ethnicity	.10		
	Grade	-.01		
	General social status	.33**		
	SSI-G	-.06		
	General social status x SSI-G	-.30**		

Note. Gender was coded as follows: Boys = 1, Girls = 2.

Ethnicity was coded as White = 1, Non-White = 2.

Grade was coded as 6th and 7th grades = 1, 8th grade = 2.

SPSSI = Social Status Insecurity regarding Social Preference.
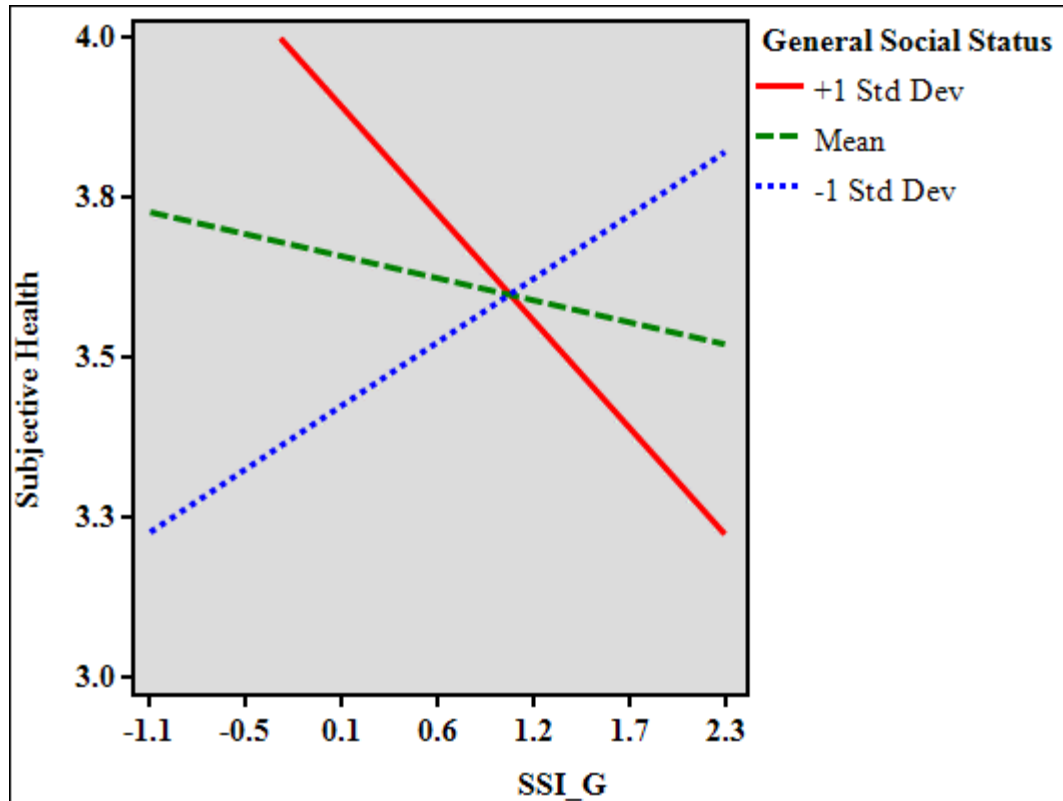
*$p < .05$. **$p < .01$.

Figure 8. Simple slopes for the interaction effect of SSI-G and general social status on subjective health

For sleep problems, the analyses indicated significant and positive main effects of SSI in three types to the sleep-related health problems. Specifically, POPSSI was positively related to sleep problems (β =.24, $p<.05$, $R^2 = .10$, $\Delta R^2 = .07$, $p <.05$). Adolescents who had higher SPSSI also reported greater sleep problems (β =.30, $p<.01$, $R^2 = .11$, $\Delta R^2 = .08$, $p <.05$). Similarly, greater levels of SSI-G significantly contributed to more sleep problems (β =.33, $p<.01$, $R^2 = .12$, $\Delta R^2 = .10$, $p <.05$; see Table 27). Other than those reported main effects, no significant interactions between any type of SSI and corresponding social status were found to be linked with adolescents' sleep problems.

Table 27

Hierarchical Multiple Regressions for Predicting Sleep Problems from SSI and Social Status

	Sleep Problems				Sleep Problems				Sleep Problems		
	β	R^2	ΔR^2		β	R^2	ΔR^2		β	R^2	ΔR^2
Block 1		.02	.02			.02	.02			.02	.02
Gender	.15			Gender	.15			Gender	.15		
Ethnicity	.03			Ethnicity	.03			Ethnicity	.03		
Grade	.02			Grade	.02			Grade	.02		
Block 2		.10	.07*			.11	.08**			.12	.10**
Gender	.10			Gender	.08			Gender	.09		
Ethnicity	.07			Ethnicity	.07			Ethnicity	.06		
Grade	.03			Grade	.04			Grade	.01		
POP	-.10			SP	-.02			SS-G	.001		
POPSSI	.24*			SPSSI	.30**			SPSSI	.33**		
Block 3		.10	.001			.12	.01			.13	.01
Gender	.09			Gender	.07			Gender	.09		
Ethnicity	.07			Ethnicity	.06			Ethnicity	.06		
Grade	.03			Grade	.03			Grade	.004		
POP	-.09			SP	.02			SS-G	.03		
POPSSI	.24*			SPSSI	.28**			SPSSI	.31**		
POP x POPSSI	-.01			SP x SPSSI	-.12			SS-G x SSI-G	.10		

Note. Gender was coded as follows: Boys = 1, Girls = 2. Ethnicity was coded as White = 1, Non-White = 2.
Grade was coded as 6th and 7th grade2 = 1, 8th grade = 2. POP = Popularity; POPSSI = Social Status Insecurity regarding Popularity;
SP = Social Preference; SPSSI = Social Preference Social Status Insecurity;
SS-G = General Social Status; SSI-G = Social Status Insecurity regarding general social status.
*p < .05. **p < .01.

Study One Discussion

There were three aims of the present study. The first aim was to expand the previous research on adolescent social status insecurity (SSI) to an investigation of the dimensionalities of this construct, the distribution of SSI across different adolescent demographic groups, and the coping mechanisms when adolescents experience SSI. The second aim was to explore the precursory factors derived from parents, peers, and adolescents' social lives that potentially prevented or evoked the occurrence of adolescents' insecure feelings regarding their social status. The third aim was to identify the ramifications of social status insecurity on various developmental outcomes in adolescence, including social behaviors, mental and physical health, interpersonal relationships, and academic performance.

This study contributes to the existing literature on adolescent social development in multiple ways. First, it refined the dimensionalities of social status insecurity based on various types of social statuses, namely, popularity, social preference, and general social status. A closer examination of the demographic differences in SSI was provided. Furthermore, in investigating the coping processes of adolescents with SSI, a methodological advance was obtained by using both quantitative questionnaire items and a qualitative open-ended question. Second, this study provides one of the first few examinations of the antecedents of social status insecurity by addressing the associations between various parent, peer, and social factors and multiple dimensions of social status insecurity. Moreover, although some initial evidence from previous research revealed the relationships between adolescent social status insecurity and some social behaviors (e.g., relational aggression; Long & Li, 2020), the present study greatly enriched this line of the

literature by further examining the impacts of social status insecurity in other realms of adolescents' development, such as adaptive well-being, health, academic competence, and social relationships.

The findings of the present study demonstrate important implications to understand SSI and thereby promote adolescents' well-being in the peer context in which adolescents tend to have increasing concerns regarding their social status. Specifically, with the in-depth analysis of the psychometric properties of different dimensionalities of social status insecurity, important information was gained regarding the pervasiveness of multiple types of social status insecurity and the coping tactics for social status insecurity. This knowledge facilitates an integrative understanding of adolescence insecurity in the peer environment and provides a solid foundation for the future research of SSI. In addition, the identified associations between social status insecurity and a variety of behavioral, mental, and social adversities clearly reveal the developmental significance of SSI and provide promising information to parents, educators, and psychology professionals for their work to reduce adolescents' maladaptive development induced by SSI. Lastly, with the knowledge of the risk and resilience factors of adolescent social status insecurity rooted in peer victimization as well as peer and parent relationships, parents, educators and mental health professionals could design more targeted programs to reduce the likelihood that adolescents suffer from social status insecurity.

Dimensionalities, Presence, and Coping Strategies of Social Status Insecurity

The findings of this study revealed that adolescents experience three types of SSI specifically corresponding to three types of peer status, namely, popularity, social

preference, and general social status. The results from EFA and CFA supported the three-factor structure based on the eleven SSI items used in this study, with factors referred to as popularity related insecurity (POPSSI), social preference related insecurity (SPSSI), and insecurity regarding general peer status (SSI-G). The internal consistencies also confirmed the reliability of these SSI constructs. These differentiated dimensionalities of SSI are consistent with the claim that the divergence of popularity and social preference becomes increasingly salient during adolescence (Mayeux & Cillessen, 2008; Prinstein & Cillessen, 2003). Therefore, adolescents not only generate a generic sense of insecurity about their overall position in the peer hierarchies, but also have insecure feelings specific to popularity and social preference. The correlation results further showed positive associations among the three types of SSI, suggesting a coexistence of the insecure and concerned feelings regarding multiple manifestations of peer status with which they may feel either being threatened or not being satisfactory enough. Furthermore, the negative correlations between all three forms of social status in this study (e.g., popularity, social preference, and general social status) and the corresponding insecurity reveal a tendency for adolescents in the relatively lower hierarchy among peers to suffer from increased insecurity regarding their social standing in multiple forms (Li & Wright, 2014; Long et al., 2020).

This study further showed that SSI did impact boys and girls at different degrees. Adolescent girls were more vulnerable to experience SSI in different peer status domains as they reported higher levels of POPSSI, SPSSI, and SSI-G than boys. Prior empirical studies have indicated that, compared to boys, girls suffer from greater concerns about their standing among peers, and they are more likely to be adversely affected by the

issues in the peer context. For example, girls show a greater inclination to underestimate their social preference when responding to negative feedback and are more sensitive and anxious about peer rejection (Sandstrom & Herlan, 2007; Zimmer-Gembeck et al., 2014). As for the individual differences in forms of SSI across different ethnicity and age groups, findings in the present study have not reached to the statistical significance level but demonstrated a general trend that the participants who were self-identified as White reported slightly higher SSI in all three forms. Given that the ethnical minorities only consisted of a small portion of the sample (7.4% Asian, 4.7% other, 3.7% Hispanic, 1.5% American Indian or Alaska Native, and 0.7% African American), the statistical power to detect an ethnic difference was limited. Moreover, the non-significant grade effects on the three types of SSI suggest that adolescents tend to experience similar levels of SSI during early adolescence.

    With regard to coping strategies to manage social status insecurity, both quantitative and qualitative results support a conclusion that adolescents utilized various approaches to address their worries about social standing, such as emotional regulation, problem solving, positive actions (e.g., seeking social support or cognitive restructuring), and maladaptive responses (e.g., self-criticism or social withdrawal). This finding is consistent with the literature that when encountering stress in social lives and interpersonal relationships, adolescents resort to both adaptive and maladaptive coping to address difficulties (Clarke, 2006; Compas et al., 2017). Furthermore, the positive relations between different types of SSI and negative coping strategies from the quantitative results indicate that the more insecure feelings adolescents have about their status among peers, the larger the likelihood that they rely on maladaptive or avoidant

tactics to respond to their insecurity. The findings from the open-ended question of

coping strategies for social status insecurity also confirm that adolescents employ various

strategies to cope with this social status related issue. In addition to the typical adaptive

coping emerged from the responses to the open-ended question, such as seeking social

support and positive problem solving, and the typical negative coping, such as avoidance

and ignoring, the adolescents reported several unique coping methods to solve social

status insecurity problems. For instance, some respondents referred to employing a social

conformity tendency (e.g., to act more like popular peers) to relieve social status

insecurity. Research in the field of adolescent peer status has shed light on the salient

linkages between high social status (e.g., as popularity and likeability) and peer

conformity (e.g., Gommans, Sandstrom, Stevens, ter Bogt, & Cillessen, 2017), implying

that adolescents may use peer conformity as a practical strategy to maintain their standing

among peers and thereby attenuate their concerns about social status. Moreover, unlike

many prior studies which regarded the distraction as a maladaptive coping strategy

(Basáñez, Warren, Crano, & Unger, 2014; Spirito et al., 1988), participants' written

responses of the open-ended question in this study revealed that some adolescents might

also resort to constructive hobbies, such as reading and playing the piano to alleviate the

stress due to social status insecurity. Findings from the qualitative part of the coping

methods for SSI complemented the quantitative results on the association between SSI

and maladaptive coping, as it further revealed that in addition to maladaptive coping,

adolescents also relied on various adaptive as well as mixed coping strategies (i.e.,

conformity) to deal with SSI. Give that the adaptive coping measured by the quantitative

measure in this study were limited in only five types (i.e., problem solving, positive

emotion regulation, cognitive restructuring, and seeking social support), findings from

the qualitative item greatly added our present knowledge about how adolescent coped

with SSI in both positive and negative ways.

Antecedents of SSI

Findings of this study revealed multiple social and familial antecedents of SSI in

adolescents. Specifically, insecure attachment with parents and peers spilled over to

adolescents' insecure emotions for their social standing. On the contrary, secure parental

and peer attachment in adolescents functioned as the inhibitive factors of SSI in different

types. Furthermore, adolescents' attained peer status played moderating roles in the

associations between these antecedents and social status insecurity.

Attachment to parent and SSI. This study found that communication in parent-

child relationships was linked to decreased adolescents' social status insecurity,

particularly on popularity, whereas, alienation was linked to increased adolescent

insecurity about popularity, social preference, and general social status. Such a pattern of

results implies that attachment insecurity to parents (e.g., alienation) works as a

contributing factor to adolescents' SSI, but the secure attachment to parents (e.g.,

communication) is likely to prevent adolescents from concerning about popularity status

among peers. This pattern is in line with previous research that the insecure parental

attachment jeopardizes the interpersonal relationships and proper peer status of

adolescents because the insecure dynamics transferred from the parent-child discord may

misguide adolescents to act less adaptively (e.g., deviant behaviors or social withdrawal)

when engaging in peer interactions (Colonnesi et al., 2011; Krieg & Dickie, 2013).

Therefore, with the negative influence of insecure parental attachment being projected or

transferred to adolescents' perceptions of social standing, SSI is also very likely to be

aroused as a repercussion of the attachment insecurity. On the other hand, adolescents

who have formed a secure base from parent-child relationships are usually able to convey

such a benefit into their peer relationships and perceptions of social standing, such as

having more positive expectations in peer interaction and receiving more friend support

(Liu, 2008). Consequently, the secure attachment cultivated in parent-child relationships

facilitates adolescents to be resilient when facing negative peer interactions and feeling

insecure about social standing.

Attachment to peers and SSI. Having secure or insecure attachment to peers

also makes a difference in adolescents' concerns about social status in multiple forms.

The negative associations between trust in peer relationships and adolescent SSI indicates

that the more security adolescents experience with peers, the less likely they are sensitive,

anxious, and concerned about their standing among peers. Previous literature has shown

that the advantage adolescents receive from a secure attachment to peers may foster many

strengths in their peer relationships and social standing, such as having better social

relationships with friends at school, higher self-esteem, and greater social connectedness

(Armsden & Greenberg, 1987; Wilkinson & Walford, 2001). Furthermore, the current

study found that attained social status moderated peer attachment and SSI such that the

preventive effects of secure peer attachment on SSI became stronger for adolescents with

higher peer status in general. Given that adolescents who attain a higher social standing

among the peer groups also report receiving more peer acceptance, friends, and social

support (Lease & Axelrod, 2001; Lease, Musgrove, & Axelrod, 2002), the secure

attachment to peers may be more of a secure base to keep high-status adolescents away from concerns about their social standing.

In contrast, insecurely attached peer relationships, shown as alienation to peers in this study, were positively related to adolescent insecurity regarding popularity, social preference, and general peer status. The avoidance, distancing, and coldness with peers likely render adolescents more susceptible to the worries about being unpopular, unlikable, and in the low status in the peer hierarchy. The literature based on peer attachment suggests that the insecurity in peer attachment hinders adolescents from developing proper social skills, leaving adolescents with higher levels of social anxiety and less emotional support from peers (Escobar et al., 2011; Nelis & Rae, 2009). In line with these associations, the insecurity adolescents perceive from peer attachment may also spill over to their insecure feelings regarding popularity, social preference, and general standing among peers. This highlights the importance to foster positive peer relationships in general to curb adolescents' experience with SSI. Moreover, the moderating effects of social preference revealed a general pattern that the relationship between communication to peers and the social preference status insecurity was prone to be stronger for adolescents who were low in social preference, though such relationships did not reach a statistically significant level. Considering that, in this study, the communication in peer attachment was measured by items like talking about difficulties with friends or telling friends their problems and troubles, more communication with peers appear to make adolescents in low social preference ruminate more about their concerns regarding the low social preference status. Unlike the normative disclosure to friends, co-rumination which involves rehashing problems and concentrating on the

negative emotions with friends is more likely to incite social anxiety and interpersonal

distress in adolescents (Rose, Glick, Smith, Schwartz-Mette, & Borowski, 2017;

Schwartz-Mette & Rose, 2012). In the same vein, for adolescents whose social preference

status are low, it is plausible that the more they communicate and ruminate with peers

about the difficulties they suffer from low social preference status, the more likely they

would experience precariousness about their social standing.

Peer victimization and SSI. In addition to attachment relationships, negative

experiences in social interaction are important precursors of various social status

insecurities among adolescents. This study found that being subjected to overt and

relational aggression from peers inflicted worries regarding multiple forms of social

standing in adolescents. Specifically, adolescents' insecure feelings about social

preference, as well as general peer status, increased when experiencing overt

victimization from peers. Similarly, all three sub-dimensions of SSI increased by

relational victimization. Extensive empirical evidence has shed light on the conclusion

that victims of peer aggression and school bullying are suffering from a variety of

adversities in social status and relationships, including lower popularity as well as social

preference status, less support from friends, less prosocial behavior, and lower physical

competence (Berger & Rodkin, 2009; Kawabata & Crick, 2011; Rodkin & Berger, 2008).

Among various forms of victimizations, relational victimization seemed to exert a more

direct and negative impact on adolescent status among peers as this type of aggressive

behavior attempts to hurt a victim's social relationships and reputation in particular

(Long et al., 2020; Park, Jensen-Campbell, & Miller, 2017). As a result, when

adolescents suffer from peer victimization, especially relational victimization, they likely

lose the security and confidence about their social standing among peers. Furthermore, this association is likely to be pervasive for all adolescents regardless of their attained status levels, as peer victimization is a common detrimental factor that threatens the social well-being of adolescents in general.

As a form of relational victimization, social exclusion was especially given attention in this study as it may be particularly impactful on SSI. Social exclusion not only traumatizes the emotional well-being of adolescents, but also imposes a sense of being threatened or feeling inferior in some aspects of social relationships (e.g., lower belongingness, lower self-esteem, and lacking the sense of control; Timeo, Riva, & Paladino, 2020; Williams, 2009). The findings of the present study show that social exclusion was highly predictive of adolescent social status insecurity in all three sub-dimensions (i.e., POPSSI, SPSSI, SSI-G). With ostracized experiences, such as being excluded or rejected from ingroup activities by peers, adolescents are more likely to be preoccupied with the anxiety of not being popular enough, not being liked by others, or with the worry that their social standing is being threatened.

Implication of SSI on Developmental Outcomes

The hypotheses that social status insecurity poses detrimental effects on adolescents' developmental well-being were partly supported by the present findings. Specifically, adolescent social status insecurity regarding different social status (i.e., popularity, social preference, and general social status) was significantly related to a wide range of developmental outcomes in the spheres of social behavior, mental and physical health, social relationships, and academic performance. Moderating effects of specific

social status were also found in some associations between social status insecurity and various developmental outcomes.

SSI and social behavior. Adolescents' sense of insecurity regarding all three forms of social standing in this study, namely, popularity, social preference, and general social status was positively associated with adolescent aggressive behavior in both overt and relational types. These findings suggest that when adolescents are worried about their status among peers, they are more likely to engage in overt and relational behaviors during peer interactions. Their aggression is likely to demonstrate their social power or to ensure their current standing, which thereby relieving their sense of insecurity about their social status. This finding is consistent with the evidence suggested from previous studies (Li et al., 2010; Li & Wright, 2014; Long & Li, 2020). The findings from Li et al. (2010) showed that social status insecurity functioned as an important mediator between the cultural value, individualism, and teacher-reported overt aggression in Chinese adolescents. This finding suggests that adolescents who emphasize personal independence and competition are more likely to experience SSI and are more vulnerable to emotional dysregulation. Hence, they show an increased use of verbal and physical aggression to control their status among peers. Likewise, the study from Wright et al. (2014) on American adolescents found that social status insecurity was positively and indirectly linked with self-reported relational aggression through the mediation of popularity goal. This finding illustrates that if under the stress of social status insecurity, adolescents not only cognitively processed it through setting a social status goal, but also reacted to it behaviorally through relational aggression. Similar findings have also been identified in more recent research, such that social status insecurity was closely tied with

relational aggression, both concurrently and longitudinally (Long & Li, 2020). In summary, both the literature and the present study suggested that aggressive inclination is likely a behavioral outcome subsequent to adolescent SSI. Significant moderating effects of popularity, social preference, and general peer status were not found in this study for the relationship between social status insecurity and behavioral outcomes, which implies that the increased engagement in multiple forms of aggressive behavior while having social status insecurity may be a pervasive phenomenon among adolescents, regardless of their attained peer statuses.

SSI and maladjustments. With the examination of the developmental implications of multiple forms of social status insecurity, this study found that social status insecurity was linked to increased internalizing problems measured as depressive symptoms and social anxiety. Additionally, social status insecurity regarding both popularity and general social status was found to positively relate to social withdrawal. This is consistent with the findings that the insecurity pertinent to popularity was closely linked with adjustment difficulties in terms of depressive symptoms and anxiety, both concurrently and in the long term among Chinese adolescents (Long et al., 2020). Similarly, relevant literature has repeatedly shed light on the close connections between the inability to maintain psychological security in the peer context and various adjustment difficulties. For instance, the fear of being rejected or isolated by peers was correlated with depressive symptoms among Chinese youth (Li et al., 2018). The insecure attachment relationships with close friends served as an explicit predictor of both depressive symptoms and anxiety of American youth (Lee & Hankin, 2009). Adolescents in both Western and East Asian societies who are insecure in peer attachment, which is

presented as less trust and communication, but more estrangement with peers, report more withdrawal behavior in their social lives (Elmore & Huebner, 2010; Yang, Cai, & He, 2010). As the nature of social status insecurity involves a mixture of unpleasant feelings, including concerns, anxiety, and feeling threatened with their current standing among peers, such feelings can easily spill over to social adjustment adversities of adolescents.

This study further identified that the associations between multiple SSI and adaptive difficulties varied depending on adolescents' social preference. In particular, for those who were in lower social preference, their social preference insecurity was more likely to link with depressive symptoms. Low social preference imposes additive risk to social preference insecurity on adolescents' depressive symptoms. Long et al. (2020) found a comparable pattern such that the concurrent and longitudinal associations between popularity status insecurity and depressive symptoms were stronger for adolescents in lower popularity status. Furthermore, this study disclosed that for those who are high in social preference, their insecure feelings regarding social preference status might lead to more withdrawal and inhibition in peer interactions. Because adolescent social preference usually consists of likeability and acceptance from peers, it is to some extent an unstable social concept to adolescents, as adolescents usually need to obtain such social acceptance via benign personal images or by exhibiting prosociality (Becker & Luthar, 2007; van den Berg, Lansu, & Cillessen, 2015). Therefore, for adolescents who have already achieved a relatively high social preference but, in the meantime, feel insecure about their attained social preference, they may choose to

withdraw from peer activities to save themselves from showing anything inappropriate and thus lose the favor from others.

SSI and interpersonal relationships. Another aspect of the negative impacts of social status insecurity on adolescents' social lives found in the study was social relationship dissatisfaction. Specifically, adolescents' insecurities relevant to popularity and general social status were positively associated with social relationship dissatisfaction. This finding suggests that if adolescents worry about their popularity not being high enough or feel that their standing among peers is being threatened, they are also more dissatisfied with their interpersonal situations with peers at school. The literature suggests that the concerned, anxious, and pessimistic perceptions of one's social standing in the peer context render adolescents to take a dim view of their social relationships (Downey et al., 1998; Sandstrom & Herlan, 2007). For example, young adolescents who experienced concerns about peer acceptance and social status were prone to underestimate their social competence and undergo more difficulties in interpersonal relationships (Downey et al., 1998). The negative evaluation that youth have about their social standing is a risk factor for unsociability and subsequent lowered quality of adolescents' social relationships with peers (Sandstrom & Herlan, 2007). In the present study, the specific associations between the insecurity regarding popularity as well as general social status and the dissatisfaction about social relationships did not vary significantly with the corresponding peer status of adolescents. Such information suggests that no matter what levels of social status that adolescents have, when they experience SSI, they are dissatisfied with their social relationships.

SSI and academic performance. The investigation on the association between multiple forms of SSI and academic performance showed that adolescents who had higher insecurity regarding social preference status reported higher self-evaluated general grades, and this association was greatly altered by attained social preference. In particular, for adolescents with higher social preference status, the association between social preference insecurity and self-reported academic grade was stronger. Similarly, though not reaching a statistically significant level, the linkage between social preference insecurity and self-reported GPA also tended to become positive for those whose social preference status were high. For adolescents who perform well in academic areas, they may also experience jealousy from others who perform less well in academic performance or whose academic self-esteem is relatively low (Rentzsch, Schröder-Abé, & Schütz, 2015). Given that social preference status and academic performance are usually positively related during adolescence (Becker & Luthar, 2007; Niu, Jin, Li, & French, 2016), the co-occurrence of social preference insecurity and high self-reported academic performance in adolescents with high social preference status could be interpreted with the following postulation. For those who have both high social preference status and good academic performance, they may have concerns about being envied by peers because of their scholarly achievement and thus feel precarious whether their own social preference status will be adversely affected accordingly. Additionally, general social status insecurity was reported to link to less overall satisfaction of academic performance. In line with the earlier literature, the tension and concerns toward peer status and social relationships have been found to associate with declines in academic functioning and scholastic competence over time (Downey et al., 1998; Singh,

Mathur, & Saxena, 1977). It is reasonable that if adolescents are stressed by concerns of feeling likable and accepted, their concentration toward academics would waver, which may lead to less overall satisfaction regarding their academic performance.

SSI and health. Adverse effects of SSI not only are reflected in the mental and social developments of adolescents but are also present in their self-evaluation of physical health. The findings of this study revealed that insecurities about both social preference status and general social status were positively linked with more health-related complaints. In addition, three dimensions of SSI in the present study (i.e., popularity insecurity, social preference insecurity, and insecurity regarding general social status) were all positively associated with sleep problems. If adolescents are constantly apprehensive about their social status, their health condition would be undermined accordingly. Based on an integrative review including 76 empirical studies, Marin and Miller (2013) summarized that individuals with higher interpersonal sensitivity, meaning those who are hypersensitive about others' evaluation, are potentially under higher risk of infectious and cardiovascular diseases. The sense of insecurity in various social relationships has also been corroborated as an impactful factor of health and sleep problems. For example, insecure parent-child attachment was positively related to self-reported common health problems, such as sore throat or stomach ache, in both concurrent and longitudinal associations (Goulter, Moretti, del Casal, & Dietterle, 2019). Individuals who experienced insecurity from the parent-child bond in early adolescence, which was characterized as less support and low affection from parents, reported more physical symptoms in three indications of health (i.e., neurocognitive, respiratory, and general malaise) over time (Brook, Saar, Zhang, & Brook, 2009). Youth who were

caught in insecure attachments to romantic partners also reported having more sleep

problems, including insomnia and poor sleep quality (Arsiwalla, 2017). Extending the

identified associations between insecurities in other social relationships and health

problems, the present study further revealed that the insecure perception toward social

status is another risk factor for adolescents' physical health.

Moreover, this study found the moderating role of adolescent social status on the

relationship between SSI and health outcomes. The negative linkage between general

social status insecurity and subjective health became more explicit for adolescents whose

general social standings were high. This implies that once adolescents with high social

status started to worry about their attained status, their rating of their own health status

decreased more. The stress reaction mechanism of human beings is quite effective for

them to adapt to the everyday strains in their lives, if these strains are mild and

conventional (Sapolsky, 2000). Therefore, if adolescents have already been in low peer

status, they may be accustomed to this reality, and thus, their SSI may not necessarily be

an evident risk factor of somatic symptoms. In contrast, for those at relatively higher peer

status, once they are caught by the concerns about their social standing, they may be less

able to adapt to it and consequently experience more somatic maladjustments due to such

psychological discrepancy. On the other hand, youth in high places of peer status may

also experience the pressure of more competition, as they are in the peer context where

other adolescents are also pursuing higher social status (Adler & Adler, 1995; Faris &

Felmlee, 2014). Such interpersonal competition-related anxiety may develop into SSI and

subsequently threaten adolescent physical health. Keresztes, Pikó, and Fülöp (2015)

found that youth who hold avoidant and unpleasant attitudes towards social competition

reported more health risk behavior than their counterparts who enjoyed social

competition. For adolescents who have already attained high status among peers and feel

insecure because of the increasing peer competition for social status, their stress

responses are more likely to be dysfunctional and thus adversely affect their physical

health.

Limitations and Recommendations for Future Research

The findings of the current study increase our understanding of social status

insecurity in adolescents and highlight the antecedents and developmental outcomes of

this social standing related cognition. However, these findings should be considered with

an understanding of several limitations in the present study along with some suggestions

for future directions. First, the peer nomination data in the present study was insufficient

to be used in the analysis as two thirds of the participants either skipped the peer

nomination section or did not follow the instructions to nominate peers' study ID while

completing the surveys online. Participants might feel unclear about the instructions on

the peer nomination part or feel that the peer nomination questions were too time-

consuming or effortful (Poulin & Dishion, 2008). Therefore, the results of the present

study are primarily based on self-reports. Although self-reports could be an effective

methodology to assess adolescents' social cognitions, experiences, and emotions

(Johnston & Murray, 2003), self-reports and others' reports (e.g., peer, teacher or parent

reports) may vary and capture different aspects of the same psychological constructs,

especially when measuring social behaviors (Branson & Cornell, 2009; Izquierdo-

Sotorrío, Holgado-Tello, & Carrasco, 2016). In addition, given that social status

insecurity is a very individual mental representation of the participants' perception

regarding their peer status, the associations between this insecurity and other self-reported behavioral and psychological constructs are inclined to be more salient as they are all reported by the same reporters (e.g., the informant effect; Eid & Diener, 2006). Future research may utilize various informants, such as teachers or parents, to explore the developmental antecedents as well as outcomes pertaining to social status insecurity. Furthermore, to ensure a sufficient completion rate of the peer nomination, investigators of future research could arrange a time to have the participants to take the peer nomination together and be present to answer questions that participants may have while completing the peer nominations.

The examined associations between the antecedents and social status insecurity and between the social status insecurity and developmental outcomes were all concurrent, which did not warrant inference of causality or directions of associations. For instance, among the relationships between negative peer experiences as precursors and social status insecurity as an outcome, it would also be possible that the insecurity relevant to social standing is an antecedent of the alienation with peers. In the same way, adolescents' anxieties would also function as a precursory factor of insecurity regarding social status. Therefore, future research may employ a longitudinal design with several data points to better interpret the associations between the probable developmental antecedents and consequences of social status insecurity over time.

The moderating results indicate that the impacts of social antecedents on SSI, and the impacts of SSI on a series of outcomes, were altered by the social statuses that adolescent attain. However, gender was not included as a moderator in the present study but was rather added as a control variable. Previous literature has suggested that in

comparison to boys, adolescent girls are usually more vulnerable to the concerns about their social status and relationships, and hence, suffer from greater mental aftermath (Kingery et al., 2011; Zimmer-Gembeck et al., 2014). Additionally, the current study revealed that girls reported having higher levels of social status insecurity regarding popularity, social preference, and general social status than boys did. Taking the important role of gender into consideration, future research may examine gender as another moderator to identify whether the antecedents and implications of social status insecurity might differ between adolescent boys and girls.

Lastly, considering that the current study only recruited participants from one public middle school in the US, the sample may not be representative enough to draw generalizable conclusions from the findings. In addition, the participants in this study were not diverse as more than 80% of the them were self-identified as White, leaving ethnic minorities underrepresented in the study. Although little research has examined ethnic differences in social status insecurity, earlier evidence has demonstrated that adolescents in different ethnic groups hold various social cognitions regarding their status in the peer context. For example, ethnic minority youth reported lower levels of self-esteem on peer acceptance in comparison to the ethnic majority groups in their cohort (Verkuyten & Brug, 2001). African American adolescents put the highest emphasis on the popularity goal compared to their Hispanic and Caucasian counterparts (Dawes & Xie, 2017). Hence, it is important for future research to apply the current theoretical framework centered around social status insecurity into more ethnically diverse adolescent samples to gain insights into the developmental implications of social status insecurity among these populations.

Conclusion

Extending previous research (e.g., Li et al., 2010; Li & Wright, 2014), this study presented a more comprehensive investigation of social status insecurity, a prevalent but understudied social status-related conception in adolescents. The findings of this study shed light on the understanding of social status insecurity in adolescent development. First, utilizing a revised measure, this study validated three sub-dimensions of adolescent social status insecurity corresponding to the three types of peer status, namely, popularity, social preference and general social status. A broader knowledge regarding the demographic and social variances as well as coping strategies was then gained. Second, this study highlighted precursory factors in the realms of adolescent relationships and social experiences that either intensified or eased their insecure feeling of social status. Third, this study enriched our understanding about the implications of different forms of social status insecurity on various social, mental, and health outcomes in adolescents.

Given that peer status of adolescents could be conceptualized in various dimensions (e.g., popularity and social preference) and bear different social meanings (Mayeux & Cillessen, 2008; Prinstein & Cillessen, 2003), the present study differentiated dimensionalities of social status insecurity pertinent to different social standing, which underscores the need to specify the type of social status insecurity in future research. Furthermore, this study reveals variations of social status insecurity. Specifically, adolescent girls in this study experienced higher levels of insecurity regarding popularity, social preference, and general social status than boys. Adolescents with lower overall social status tended to have higher levels of corresponding social status insecurity. In

addition, the results from the quantitative and qualitative assessments that captured

coping strategies for social status insecurity both revealed that adolescents would resort

to a variety of adaptive as well as maladaptive approaches to deal with their social status

insecurity.

In the investigation of the antecedents for social status insecurity, various factors

in the parent-child relationships, peer relationships, and social experiences have been

identified. More perceived alienation from the insecure attachment with parents and peers

was positively associated with social status insecurity in popularity, social preference,

and general social status. In contrast, more communication in the secure parental

attachment was related to decreased popularity status insecurity. Similarly, more trust in

the secure peer attachment was negatively associated with social preference status

insecurity, and such a negative association tended to become stronger for those who had

higher social preference status. Moreover, the relational victimization and social

exclusion that adolescents experienced were related to increased insecurity in all three

types of social status, popularity, social preference, and general social statuses. Similarly,

over victimization was linked to increased social preference status insecurity and general

social status insecurity.

The ramifications of the three types of social status insecurity were presented in

diverse areas of adolescent development, including social behavior, adjustment

difficulties, interpersonal relationships, academic performance, and health outcomes.

Adolescents with higher levels of popularity status insecurity reported more overt

aggression, relational aggression, depressive symptoms, anxiety, social withdrawal,

dissatisfaction of interpersonal relationships, and sleep problems. Adolescents with

higher levels of social preference status insecurity reported more overt aggression, relational aggression, depressive symptoms, social withdrawal, health complaints, sleep problems, and better academic performance in self-evaluated academic grades. Adolescents with higher levels of general social status insecurity reported more overt aggression, relational aggression, depressive symptoms, social withdrawal, dissatisfaction of interpersonal relationships, health complaints, sleep problems, and less satisfaction of academic competence. In addition, the moderating effects of social status suggest that some of the ramifications of social status insecurity on adolescents' outcomes also depend on their peer status. The current study found that with higher social preference status, the associations between social preference insecurity and social withdrawal and self-evaluated academic grades were stronger; with lower social preference status, the associations between social preference insecurity and depressive symptoms were stronger. With regard to the moderating effects of general social status, more general social status insecurity was associated with less self-reported subjective health when adolescents were in high peer status in general.

In conclusion, the present study provides a comprehensive examination about adolescent social status insecurity by investigating the psychometric properties, distributions across adolescent groups, coping strategies, origins in the social and parental realms, and ramifications on adolescent outcomes. The identification of three sub-dimensions of social status insecurity pertinent to three different types of social status (i.e., popularity, social preference, and general social status) establishes a more refined theoretical foundation of social status insecurity. Additionally, this study elucidates the potential origins of this insecurity among early adolescents with the exploration of

multiple social and parental precursory factors of social status insecurity. Last but not least, extending previous research (Li et al., 2010; Li & Wright, 2014), this study further demonstrates that social status insecurity has strong ramifications on adolescent well-being, including mental health, physical health, interpersonal relationships, and academic performance. Grounded on the comprehensive knowledge about social status insecurity found in this study, it may be beneficial for parents, teachers, and mental health professionals to help adolescents be resilient to social status insecurity in order to reduce the chances for it to negatively affect adolescents' well-being.

Study Two

Overview

The current study aims to extend the research of social status insecurity (SSI) by employing a qualitative approach. Given that previous investigation on SSI have been primarily grounded on quantitative psychometric scales, it is imperative to probe different types of SSI that adolescents may have via a group-based qualitative approach, such as focus group interviews, to cross-validate and complement the survey-based findings of SSI as well as supplement narrative information with detailed features of this social status-related cognition. To achieve these research objectives, focus group interviews with young adolescents were carried out to capture the explicit manifestations, duration, frequency, emotional reactions, and coping strategies regarding the insecurities about popularity, social preference, and general peer status, respectively. Detailed information gathered from focus group interviews may yield essential complement for future empirical and quantitative studies with a more in-depth and comprehensive knowledge of SSI.

Study Two Method

Research Participants

Participants of this study were 24 middle school students (12 to 15 years old) in sixth, seventh, and eighth grades at a private, urban, Catholic school in a Midwestern state in the United States. They came from three classes each in one of the sixth, seventh and eighth grades. With the coordination of the school principal and homeroom teachers, participants coming from each grade were randomly divided into two focus groups. Hence, participating adolescents in every focus group were in the same age group and familiar with each other. Such a homogeneity (e.g., from the same age group) in focus groups could facilitate productive discussions between participants (Krueger, 2000; Wilhsson, Svedberg, Högdin, & Nygren, 2017). Participants in the focus groups were early adolescents as this age group tends to pay increasing attention to social standing in the peer context and thus is likely to experience increasing social status insecurity (Li et al., 2010; Li & Wright, 2014).

Descriptive information of the six focus groups is summarized in Table 28. Despite that the size of each focus group in this study was smaller than that of a typical focus groups (six to 12 participants), previous studies have supported the utilization of smaller focus groups (three to five participants) with facilitation to share personal experience and engage in the group discussions (Guest, Namey, & McKenna, 2017; Krueger, 2014). In this study, the total sample size of 24 is acceptable compared to those reported in other focus group research (Onwuegbuzie, Dickinson, Leech, & Zoran, 2009; Shea, Wang, Shi, Gonzalez, & Espelage, 2016; Vangeepuram, Carmona, Arniella, Horowitz, & Burnet, 2015).

To protect the privacy of the participants, the school did not give us the permission to further identify participants' demographic information in addition to gender and grade. According to the nearby neighborhood demographics, the majority of the students at the participating school would be White as the majority of the population in the district was White (around 80%). In addition, students in the school were likely came from families with SES in the middle class or higher, as reported by the district demographics (Illinois State Board of Education, 2019).

Table 28
An Overview of Participants Per Focus Group

Focus group	N	Grade
Focus group 1	4 (3 girls and 1 boy)	7th grade
Focus group 2	4 (2 girls and 2 boys)	8th grade
Focus group 3	5 (2 girls and 3 boys)	6th grade
Focus group 4	4 (2 girls and 2 boys)	6th grade
Focus group 5	4 (3 girls and 1 boy)	7th grade
Focus group 6	3 (2 girls and 1 boy)	8th grade

Procedure

Before recruiting participants, the interview protocol and study-related materials were approved by the IRB of the principal investigator's university. The focus group study invitations were sent out via emails to the principals and administrators of a number of middle schools. Upon receiving an agreement from the participating middle school, the principal investigator along with her study team met the principal of the participating school to discuss the study. After the meeting, the school helped distribute the recruitment flyers for the focus group interview along with the consent slips to students in 6th, 7th, and 8th grades. In every consent slip, a letter to parents or guardians that briefly explained the study, a parental permission form, and an adolescent assent form were included. Prospective participants were instructed to obtain their parents'

permission and provide their own assent. The school helped us to collect back the signed

parental permissions and adolescent assents. Only the students who provided both

parental permission and adolescent assent participated in the focus group interviews.

Response rate of participants at this school was about 23%. Participants were informed

that their participation was voluntary and the data we collected from them would be kept

confidential. After participation, every participant received a $10 gift card as a token of

our appreciation.

The semi-structured focus group interviews were conducted during recess time,

lunch breaks, and independent reading classes during the school day in a private

classroom in the participating school. Each focus group discussion took approximately 45

minutes to one hour. In each group interview session, the principal investigator and one

to two trained research assistants moderated the session by asking interview questions,

facilitating discussions, and taking notes. Each group interview was initiated by a brief

greeting and introduction from the researchers, followed by an explanation of the ground

rules for the upcoming group discussions. For example, we assured participants that there

were no right or wrong answers to the interview questions, but just different opinions.

Hence, participants were encouraged to express their true thoughts. After explicating the

ground rules, researchers elicited group discussion by asking open-ended questions about

participants' perspectives on insecurities regarding social preference status (e.g., others'

liking), popularity, and general peer status. To assuage participants' concerns regarding

the privacy and the confidentiality of their discussion, we asked the interview questions

in a way that encouraged them to reflect on their general perceptions and experiences,

rather than posing questions in a personal manner. For example, instead of asking the

question "What concerns do *you* have about not being liked by peers?", we asked, "What

concerns do *peers in your age* have about not being liked by peers?". The list of focus

group questions is shown in Table 29. During the group discussions, the researchers

asked questions one by one and left enough time for participants to express their

viewpoints, until no more comments emerged. Then, researchers moved onto the next

question. In addition, if participants' discussions were too brief or too vague for a certain

question, the moderators encouraged them to elaborate on their response or give

examples for clarifications. The interview of every focus group was audio recorded with

parental permissions and participant assents. Audio recordings of each group's

discussions were transcribed verbatim into transcripts for later analysis.

Data Analysis

A research team of multiple trained research assistants was formed to analyze the

text transcripts from all the focus group discussions. This research team consisted of

undergraduate students majored in psychology and was supervised by the principal

investigator. The transcripts were de-identified before being analyzed to ensure

confidentiality. Instead, a reference name was given to every participant in the

transcripts. The data analysis plan followed the framework of the Grounded Theory

(Corbin & Strauss, 2008; Strauss & Corbin, 1994) as we did not preconceive any

assumptions or hypotheses regarding each interview question. Instead, we aimed to probe

adolescents' intuitive perception and subjective experience regarding SSI by generating

the thematic schemas to highlight the interactive codes and relevant themes directly from

adolescents' descriptions (Sánchez, Pinkston, Cooper, Luna, & Wyatt, 2018; Shea et al.,

2016). We went through the flowing procedures to fulfill the specific data analyses of the

focus group discussion transcriptions, including the open coding stage to identify the

responses regarding each question discussed in all focus groups, the axial coding stage to

group and summarize categories that comprised specific codes with similar meanings, the

coding schema finalization for a consensus coding manual, and at last, the pair-coding

phase for the frequency of each category within each interview question.

Table 29

Focus Group Question List

Questions in the focus group interview	Construct
1. What concerns do peers in your age have about not being liked by peers?	Social Preference SSI (SPSSI)
2. What feelings do they have if they are concerned about being not liked as much as they want by their peers?	Emotional reactions of SPSSI
3. How often do they feel this way?	Frequency of SPSSI
4. How long does this feeling last each time for them if they have?	Duration of SPSSI
5. What would they do if they have concerns about being not liked as much as they want by their peers?	Coping strategies of SPSSI
6. What concerns do peers in your age have about their popularity among classmates?	Popularity SSI (POPSSI)
7. What feelings do they have if they have concerns about being not as popular as they want?	Emotional reactions of POPSSI
8. How often do you think that they may have such a feeling?	Frequency of POPSSI
9. How long does this feeling last each time for them if they have?	Duration of POPSSI
10. What would they do if they have concerns about their popularity among peers?	Coping strategies of POPSSI
11. What concerns do peers in your age have about their social standing or status among peers?	General Social Status Insecurity (SSI-G)
12. What feelings do they have if they have concerns about their status among peers?	Emotional reactions of general SSI-G
13. How often do you think they may feel this way?	Frequency of general SSI-G
14. How long does this feeling last each time for them if they have?	Duration of general SSI-G
15. What would they do if they have concerns about their status among classmates?	Coping strategies of general SSI-G

Note. SSI = social status insecurity; POPSSI = popularity status insecurity; SPSSI= Social preference insecurity; SSI-G = General social status insecurity.

During the open coding stage, the research team read through the transcripts carefully and followed the line-by-line analysis to unpack the focus group discussions down to the smallest units of meaningful concepts (i.e., codes) guided by each of the interview questions (Corbin & Strauss, 2008; Shea et al., 2016). For example, with regard to the question about the manifestation of social preference insecurity (SPSSI), one participant indicated "A concern I would have is, if other people didn't like me, I wouldn't have any friends and I would probably get picked on or bullied a lot". This response regarding SPSSI was coded as "having no friends" and "peer victimization".

After all the transcripts were reviewed and the codes of all the interview questions were generated, codes with similar ideas were grouped together to develop categories based on each interview question during the axial coding stage (Corbin & Strauss, 2008). The created categories were then labeled with phrases that could generalize the themes of certain categories. For example, in response to the emotional responses of SPSSI question, codes from adolescents' discussions such as "sadness," "depression," and "insecurity" were grouped into a broader category labeled as *negative emotions*. Research team members coded transcripts and generated categorizations individually and then shared the coding results with one another through weekly meetings. Such a double checking and revision process was featured in the constant comparative analysis (Corbin & Strauss, 2008), in which we went back to the original transcriptions to refine the existing codes and categories. In this way, we could identify whether there was consensus or discrepancy regarding the coding procedures. Any differences regarding the abstract meanings of the codes, the logical relationships between codes and categories, and the themes of each category were carefully clarified and resolved to eventually reach to a

consensus about the coding schema (Sánchez et al., 2018). We repeated the comparison and refined the coding results until no additional information could be extracted to generate new codes and categories for the interview questions.

Once the responses to all interview questions in each focus group were described in codes and categories, a consensual coding manual was generated and used as a guide for the next pair-coding phase to compute the frequencies of each category that had been mentioned and discussed during focus groups. To ensure the credibility of the frequency calculation, the PI and another research assistant in the study team independently coded the data using the finalized coding manual. In particular, when a specific code for a given question was mentioned by a participant in a focus group once, a score of one was added to the category for the corresponding code. If a code was discussed more than once for the same interview question by the same focus group, the category which included this code was given a score reflecting the frequency that this code was referred to. The inter-coder agreement and reliability of the two coders were acceptable with an average agreement as 90% and a mean Cohen's kappa as .93 (ranging from .89 to .96) for all 15 interview questions (Hallgren, 2012). Differences in the coding frequencies were discussed and resolved by the paired coders through discussions to reach an agreement. The overall frequencies provided supplemental information to classify categories.

Study Two Results

The discussions from six adolescent focus groups on 15 interview questions reflected three major topics focused on various social status insecurities, with each major topic containing further subthemes to unpack the detailed descriptive information. The first major topic centered on social preference status insecurity (SPSSI), through which

the information on the presence and influences of SPSSI in the current adolescent context

was presented. Subthemes centered on SPSSI provided in-depth descriptions about the

specific manifestations, emotional reactions, frequency, duration, and coping strategy for

SPSSI (see Table 30). The second major topic focused on the occurrence and experiences

of popularity status insecurity (POPSSI), with the subthemes reflecting the specific

manifestations, emotional reactions, frequency, duration, and coping strategy for this type

of social status insecurity (see Table 31). The last major topic revealed the pervasiveness

and various reactions of the social status insecurity regarding general peer status (SSI-G).

Subthemes of SSI-G provided thorough descriptions regarding the specific

manifestations, emotional reactions, frequency, duration, and coping strategy for this

form of social status insecurity (see Table 32). In the following results, each theme as

well as its subthemes is introduced with detailed descriptions and direct quotes from

participants.

Table 30

Subthemes, Categories, Codes, and Examples of Adolescents' Perception on Social Status Insecurity Regarding Social Preference (SPSSI)

Subthemes of SPSSI	Categories	Frequency	Example
Subtheme 1: Manifestation of SPSSI			
	Peer status and relationship related concerns	8	Wanted to be liked
			Worries about popularity
			"Trying to fit in"
	Friendship related concerns	2	"Having no friends"
	Sports activity related concerns	2	"Wanted to be chosen for sports activities"
	Social media related concerns	2	Not having followers on social media platforms
	External possessions and appearance related concerns	2	Having trendy possessions
			"Girls care about appearance"
	Concerns about others' opinion	4	How people think of themselves
			"Girls care how boys think of them"
	Peer victimization	3	Getting made fun of, bullied, or teased
	Not viewing SPSSI as a concern	4	"Do not really care about it (SPSSI)"
	Other concerns	2	Worried they are not cool enough
Subtheme 2: Emotional reactions to SPSSI			
	Negative emotions	16	Feeling sad, annoyed, uncomfortable, hurt, lonely, stressed, and/or depressed
			Feeling confused and/or disappointed
			Feeling the sense of insecurity, jealousy, and/or betrayal in interpersonal relationships
	Social status related emotions	3	Feeling the need to be liked
			Fears of losing popularity
	Emotional regulation in avoidance and denial	2	Viewing SPSSI as a joke
			Lying about true feelings
Subtheme 3: Frequency of SPSSI			
	Relatively lower frequency	5	"Not often", "A little while", or "Not usually"
	Relatively higher frequency	5	"A lot" or "Almost everyday"
			"Would be more often if a new child comes"
	Frequency increased with age	3	"Feeling it (SPSSI) less last year…"
			"...when you get older, you start to think about what other people are saying"
	Frequency varied and increased with triggers	7	"If they don't get invited to hang out"
			"When you are made fun of"
			"When friends drift apart"
			"When you become jealous of popular people"
Subtheme 4: Duration of SPSSI			
	Relatively shorter lasting time	2	"Several hours" or "A day or two"
	Relatively longer lasting time	4	" A week or two", "A couple of months", or "Long time"
	Duration varied and terminated until the issue solved	5	"It (SPSSI) could last until it gets resolved "
			Duration of SPSSI is longer when it is from friends than from others
Subtheme 5: Coping strategies for SPSSI			
Adaptive coping			
	Attracting others' attention	3	Trying to be the center of the friend group
	Fitting in through group conformity or imitation	5	Doing what they think people would want them to do
			Trying to hang out with popular people
			Imitating popular people
	Changing oneself	3	"Try to change themselves to be more liked "
	Distracting one's own attention	2	Turning to "other things" or "electronic gaming"
	Trying to be funny	4	"Try more to make people laugh"
	Seeking social support	4	Talking to a social worker at school
			Playing with friends
			Reaching to a stable friend who's always a friend
Maladaptive coping			
	Aggressive behaviors	5	"Get in trouble in class, such as yelling out"
			Making jokes about peers/Gossiping
	Self-isolation or self-seclusion	3	"Sit alone and hang out alone at school or during breaks"
	Avoidance or denial	3	Viewing SPSSI as a joke
			Lying about true feelings

Note. The frequency of the categories refers to the times a specific code within this category was mentioned or discussed by a participant in the focus groups.

Theme 1: Social Status Insecurity regarding Social Preference (SPSSI)

      Manifestation of SPSSI. When adolescents were aware of the insecurity regarding their social preference status among peers (SPSSI), they were impacted by these concerns in multiple aspects of their social lives. The most intuitive contents of SPSSI happened in adolescents' desire of being liked by others, as participants directly expressed the craving for likeability from others. For example, they described that some peers might even hope for everyone to like them, though it was unrealistic. Also, the insecure feelings about social preference status could spill over to popularity status, such that the participants were afraid of "not being popular" and sensed the concern of "their levels of popularity" when having SPSSI. In addition, as reported by two focus groups in this study, the occurrence of SPSSI pushed adolescents to perceive the pressure of "fitting in".

      According to the group discussions, SPSSI also evoked adolescents' worries in specific areas in their social lives, including friendship, sports, social media, and external possessions or appearance. Focus groups in 6th and 8th grades both disclosed concerns about the reduced number of friends as a manifestation if adolescents were suffered from SPSSI. Specifically, they were fearful of their friends leaving from their social networks or even of having no friends. In terms of sports-related concerns, the existence of SPSSI caused adolescents to fear not being chosen for sports activities. Thus, they were under the pressure of "trying harder on sports activities than usual," as a 7th grade boys stated. Likewise, two groups in 6th grade mentioned that if adolescents were troubled by SPSSI, they would care whether their possessions were trendy. Participants thought girls were

particularly concerned about their physical appearance due to the effects of SPSSI. Even

on social media platforms, such as Instagram, TikTok, or Snapchat, SPSSI made

adolescents anxious about the number of their followers and friends that they had online.

In addition, an 8th boy commented that "Some kids think they were not cool, I guess"

when giving specific examples of SPSSI.

Another primary manifestation of SPSSI reflected in the respondents' reflection

was the fact that adolescents caring about other people's opinions pertinent to

themselves, which was discussed by three different focus groups. For example, two 6th

graders from different focus groups both indicated that young adolescents were curious

about what others thought about them. One 6th grade boy particularly pointed out that he

believed girls in this age group were more likely to concern about their personal image

from boys' viewpoints. Furthermore, in another focus group, an 8th grade girl regarded

good self-presentation in front of others as crucial when asked about what concerns teens

might have pertaining to their likeability status.

The apprehension associated with peer victimization was another specific

manifestation of SPSSI. Adolescents expressed their uneasiness of being the target of

school bullying (e.g., "getting bullied") or relational aggression (e.g., "getting made fun

of, bullied or teased" or "getting talked about behind someone's back"). According to

such perceptions, the misgivings about not being liked by peers might be came from the

possibility of peer victimization while interacting with peers.

However, not all adolescents were affected by SPSSI. Some focus group

participants were less likely to view this type of insecurity as an issue or a stressor in

their daily life. A group consisting of 6th graders specifically shared that because people

in their grade usually had enough friends either in their daily surroundings or on social

media, they were not necessarily bothered by SPSSI, even if they might feel a momentary

fear of not being liked by peers. A 7th grade boy in another focus group shared a fearless

attitude towards SPSSI by having enough affirmation and confidence about himself:

"…I feel like it doesn't really matter because if someone does not like who you

are, you do not really have to change yourself to have people like you, and you can just

like be your own individual self."

Emotional reactions to SPSSI. In response to the interview question pertinent to

what feelings adolescents perceive if they encounter SPSSI, the group discussions

revealed a wide range of negative emotions as instant reactions of this form of SSI.

Specifically, many participants recognized that it is very likely to experience a series of

unpleasant, negative, and internalizing emotions due to SPSSI. Sadness was the most

frequently mentioned emotion among their reports, followed by feelings of annoyance,

discomfort, stress, loneliness, hurt, and depression. Along with uncomfortable mental

perceptions, some participants particularly mentioned that SPSSI could result in peers

being caught in confusion, disappointment, and questioning towards themselves. For

example, a 6th grade girl described the emotional reactions of peers in her age who were

bothered by SPSSI:

"I think they are a little more annoyed, because they are like trying to be liked.

When someone does not like them, it is just kind of like, why am I trying so hard and

why don't they like me".

Another 7th grade girl depicted similar episode such that peers might feel both sad and disappointed because of SPSSI, "I think they might feel sad or like disappointed in themselves".

Some of the participants shared a tension of insecurity happened in their interpersonal relationships, because the occurrence of SPSSI made them suffer from insecurity, jealousy, and a feeling of betrayal. For example, a 6th grade girl expressed that some adolescents became jealous and upset if they sensed that peers befriended other people instead of themselves. Another girl in the same group agreed with her and added,

"That's right. If I feel I'm not well liked by my friends, I will ask myself like 'well, now what do I do?' Like, I need to know how should I get more friends? But I really don't want to be, like betrayed again."

The negative feelings and interpersonal tensions evoked by SPSSI further elicited adolescents' intention to pursue higher peer status in both popularity and social preference. A 6th grade girl pointed out that if peers in her age were aware of SPSSI, they would feel the need to take some actions to get attention and therefore be more liked. Other participants added that SPSSI sometimes activated peers' social goals on popularity and exaggerated their fear of losing others' liking.

A few participants noticed that while it is very likely that peers were bothered by SPSSI, they would utilize emotional regulation tactics, such as avoidance and denial, as a reaction. Some adolescents would use jokes to mask their concerns of SPSSI. For instance, a 6th grade boy said, "…they use it as a joke, a lot. Like some people in the other class always says, 'well, I have no friends', even though they're mostly lying".

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Another 6th grader boy added that "a lot of people fake being happy" while they were indeed bothered by SPSSI issues.

Frequency of SPSSI. A number of participants believed that the occurrence of SPSSI did not show up quite often in their own or peers' social lives. They described the frequency of SPSSI as "not often," "not usually," and "a little while." Participants attributed the infrequency of SPSSI to the support from friends and peer groups. For example, a 7th grader commented that "(SPSSI occurs) Not very often because it's such a small school that everyone knows each other really well." Another 6th grader also shared, "Our group, of kids in 6th grade, is the nicest groups in the whole school. Everybody has friends, so, (we are) not usually lonely that much."

However, some participants noticed increased frequency of SPSSI with age or in certain circumstances. A 6th grade girl recalled that while peers entered from the lower grade into 6th grade, a lot of them started to feel the effects of SPSSI more frequently. Another girl in the same group added that for peers who attempted to make more friends but eventually failed, they would experience SPSSI more often. In one of the 7th grade focus groups, a girl noted that new students might be more likely to encounter SPSSI. A boy from 8th grade even pointed out that some peers in their grade might feel concerned about their levels of likeability every day, indicating the increase of the frequency of SPSSI with age.

Notably, one 6th grade group in particular recalled that the occurrence of SPSSI became more salient and frequent during a critical transition in their school years, namely, from the last elementary school grade (5th grade) to first middle school grade (6th grade):

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(Boy 1): "… I do feel like last year (5th grade), people less felt that way a lot. It hasn't really happened that often until this year (6th grade)."

(Group): "Yeah, yeah."

(Girl 1): "I kind of feel like from 5th grade to now, we were all sort of, like…"

(Boy 2): "Insecure!"

(Girl 1): "Yeah, insecure, like, changing. Like, when you're younger you don't really care what people think, and then when you get older, you start to think about what other people are saying. You are thinking about everyone and questioning, 'what's everyone thinking about me'."

In light of that, many adolescents suggested that the frequency of SPSSI varied depending on different scenarios that were regarded as triggers of this type of insecurity. For example, experience of social exclusion (e.g., "If they don't get invited to hang out), peer victimization (e.g., "when you are made fun of"), and threats from popular peers (e.g., "when you become jealous of popular people") all increased the frequency of SPSSI. Some participants in 8th grade recognized that attained peer status affected the frequency of SPSSI. For example, an 8th grade boy stated, "I also think it varies from person to person. If you're very popular, you probably don't feel sad that often. But if you're not that popular, then you might feel sad even more."

Duration of SPSSI. Based on the group responses, the duration of SPSSI also showed great individual differences. In addition, the persistence of this insecurity depended on the situations that instigated this insecurity. A small number of adolescents perceived that the aftermath of SPSSI lasted a relatively short period of time, ranging from several hours to a day or two. However, more adolescents figured that the impacts

of SPSSI could remain for a comparatively longer period. For example, a couple of 6th

graders estimated that the feelings of SPSSI could sustain for weeks or even longer (e.g.,

"a couple of months").

Participants reported that the sources of SPSSI played a role in the duration of this

type of insecurity. If SPSSI stemmed from an interaction with one's close friends, this

insecurity would last longer than that was from other people. For example, a 6th grade girl

said,

"I feel like if it (SPSSI) comes from really good friends, then it might last for,

like, weeks or more like months. But if the concerns were not really from your friends, I

feel like, it would be a couple of days, or maybe like a week."

Some adolescents stated that SPSSI could last until the issue has been solved. For

example, they believed that the termination of SPSSI happened when "they found another

peer group (to join)," "they felt included," or "they fixed the problem with the person

who caused them felt the concern (SPSSI)."

Coping strategies for SPSSI. When confronted with concerns about one's social

preference status, adolescents mentioned coping strategies that could be coarsely grouped

into two categories: adaptive coping and maladaptive coding. In the adaptive coping

category, adolescents listed a series of actions that peers utilized to solve SPSSI in

socially adaptive and proactive ways, such as seeking social support. In the maladaptive

coping category, adolescents specified that victims of SPSSI showed socially destructive

or maladjusted tendencies, such as showing forms of aggressive behaviors, self-isolation

or self-seduction, and avoidant inclinations in response to SPSSI.

Many respondents remarked that peers who have concerns regarding their social preference took several actions in their interpersonal relationships and social interactions to solve the SPSSI issue. Some of them tried to attract others' attention by "standing out" or "being the center of friends groups," while others showed a salient inclination to integrate themselves into peer groups or stick to the popular peers. Such an inclination was actualized through a range of conformity intentions (e.g., "attempt to hang out with people they think are popular") or imitative actions (e.g., "imitating popular people"). Furthermore, a few adolescents recounted that peers would change themselves or their personality in order to make them more favored. Other participants mentioned that peers shifted their attention away from the direct SPSSI to get rid of the negative consequences of this insecurity. For instance, they opted to spend time in electronic gaming (e.g., computers, Xbox, or PS4) with friends online.

A lot of participants noticed that teens in their age were prone to demonstrate prosocial tendency in the peer context as a coping of SPSSI. Adolescents from all 6th, 7th, and 8th focus groups pinpointed that when facing with concerns on their social preference status, peers would try to be funny and make people laugh to solve the social status-related crisis. Others also suggested that actively seeking of companionship and support from other people, such as friends or social workers, was another helpful solution that employed by youth to deal with SPSSI.

On the contrary, participants also illustrated that some peers adopted aggressive behaviors as a solution to SPSSI. Those aggressive coping included both over aggression (e.g., "being rude" and "yelling out in class") and relational aggression (e.g., "talking behind someone's back" and "gossiping").

Contrary to the proactive coping, adolescents reported that some peers addressed SPSSI in a passive way. Participants mentioned that some peers became self-isolated or intentionally seclude themselves from the group (e.g., "sit alone and hang out alone at school or during breaks"). Other teens were also found to have avoidant and denial attitudes with the purpose to conceal SPSSI problems, such as "viewing it as a joke," "lying about true feelings," or even "acting annoying on purpose to make it seem like they do not care about their status."

Theme 2: Social Status Insecurity regarding Popularity (POPSSI)

Manifestation of POPSSI. When asked about what concerns that adolescents have about their popularity status among peers, participants primarily indicated that under certain conditions, they were less likely to be affected by this type of insecurity as compared to SPSSI. A 6th grade boy directly told us that "I don't care if I am popular or not." An 8th grade boy explained that not everybody would have a goal to be popular, and hence, POPSSI would not be an issue for those who have no intention on seeking higher popularity. Another 6th grader revealed that peers in high popularity status were less likely to worry about popularity-related concerns. Furthermore, a focus group consisting of 7th graders attributed several reasons to why they were not significantly bothered by POPSSI. In particular, the school climate (e.g., "since it is a smaller school, everyone knows each other and no one is really more popular"), the connectedness on social media (e.g., "most of us all have social media, so we are all like friends on social media too"), and the harmony in social relationships (e.g., "no one would talk behind anyone else's back") all contributed to the eased perception of POPSSI.

Table 31

Subthemes, Categories, Codes, and Examples of Adolescents' Perception on Social Status Insecurity Regarding Popularity (POPSSI)

Subthemes of POPSSI	Categories	Frequency	Example
Subtheme 1: Manifestation of POPSSI			
	POPSSI was less likely an issue under certain conditions	8	"I don't care if I am popular or not" Not everybody tries to be popular "(in a small school) No one is really more popular" "We are all like friends on social media too"
	Competition on popularity or peer hierarchy	5	"Some people might think that some friend groups are more popular than others" Competing for popularity Taking the leadership in the girls' group
	Peer victimization	4	Popular peers bullied less popular peers Feeling excluded Being laughed at
	Concerns about others' opinion	3	What people think of, say about, or know about themselves
	Number of friends in real life or on social media	2	Not having friends Not having enough social media followers
	Social preference related concerns	1	"People want everybody to like them"
Subtheme 2: Emotional reactions to POPSSI			
	Negative emotions	12	Feeling sad, worried, upset, moody, and/or depressed Feeling mad and venting the anger
	Specific unease regarding peer relationships or status	5	Feeling left out Feeling not popular Feeling the urge to have more friends
Subtheme 3: Frequency of POPSSI			
	Relatively lower frequency	4	"Not very often" or "Not that much" "A couple times a year" or "Once a month"
	Relatively higher frequency	5	"Quite often" or "A lot" "Two to five times a month" or "Once or twice a week" More frequent in girls than in boys
	Frequency varied by individuals or situations	6	"Depends on the situation" "Every time they try to get someone's attention but fail" "When they accomplish something but is unnoticed"
Subtheme 4: Duration of POPSSI			
	Relatively shorter lasting time	11	"In the moment", "A couple of minutes", or "A little bit but not very long" "A day" or "One night"
	Relatively longer lasting time	4	"A month or more" "Until the end of puberty"
	Duration varied and terminated depended on situations	4	"Until they get more attention" "Until they get a friend" Duration of POPSSI was longer for victims of bullying, but shorter for popular peers
Subtheme 5: Coping strategies for POPSSI			
Adaptive coping			
	Following popular people or the popular trends	11	Imitating, following around, or idolizing popular peers Chasing the popular trends in social lives and physical appearance
	Attracting others' attention by self-demonstration	10	Trying to get attention Self-expression Showing coolness Cutting in others' conversation Posting frequently on social media
	Taking actions to change one's behavior, appearance, or personality	10	Acting cool and dressing cool Changing themselves to more like popular people Wearing certain attire that is cool/trendy Buy certain phones and headphones
	Seeking social support	8	Moving to different friends Connecting with remote friends Hanging out more Talking to other people Making friends online Following more people on social media
	Religious coping	2	Praying "Go to church and ask for God's help "
	Self-consolation	2	Understanding it (POPSSI) and "just let it go"
Maladaptive coping			
	Aggressive behavior	5	Physical aggression Spreading rumors about others Making fun of people (usually boys) Bullying (usually boys)
	Risky behavior	2	"Vaping and drugs"
	Self-seclusion	1	"Hide in their room when at home"

Note. The frequency of the categories refers to the times a specific code within this category was mentioned or discussed by a participant in the focus groups.

As the discussions moved on, however, many participants did recognize the manifestations of POPSSI in competition for popularity and peer hierarchy. Participants noticed that some peers would compare the popularity levels of the friend group they were in versus the other peer groups in the grade. If their own social group was not as popular as they expected, POPSSI arose. In line with this, some participants remarked that peers with concerns towards POPSSI demonstrated competitive intentions of popularity and ambitions of rising "above other people." A 6th grade girl especially brought a gender-specific emphasis of POPSSI to our attention, stating that girls viewed POPSSI as a "bigger thing" and cared more. She accounted the stronger presence of POPSSI in girls' groups to the fact that "everybody likes to be the leader in our girl group." Another 6th grade girl added that she was worried about her popularity among the same sex peers if she spent too much time with the boys, because she was afraid that other girls might consider her "weird." Furthermore, concerns about others' opinions could also be a salient presentation of POPSSI. A group of 6th graders engaged in a heated discussion that when they were facing the entrance of adolescence, they were more mindful and curious about other people's thought, evaluations, or knowledge about them as they were fearful of being the target of rumors spread by peers.

Several adolescents expressed concerns pertinent to peer victimization while they specified the contents of POPSSI, including concerns about being bullied, socially excluded, or targeted as the victim of relational aggression. For example, an 8th grade girl implied that the popular peers seemed to have the right to "rule over" the less popular cohorts as she pinpointed occasions of popular peers exerting bullying behavior over the less popular counterparts at school. On the other hand, some 6th graders agreed that the

concerns regarding popularity status were concurrent with the scare of being laughed at when interacting with peers. Furthermore, an 8th grade boy disclosed his own anxiety about exclusion if he did not have enough knowledge about the peers who were recognized as popular. He shared,

"… there's a bunch of other people from the other schools that everyone knows they're really popular. I kind of feel excluded sometimes because I don't really know those people. When my classmates talked about them and I asked, 'who are you talking about?' They'll sometimes laugh at me and it makes me feel really bad."

According to the description of adolescents, POPSSI could also be reflected in the number of friends in their social lives, the number of followers on social media platforms, and the degree of one's own likeableness. For instance, an 8th grade boy depicted how peers sometimes became angry because of losing followers on social media, indicating that POPSSI could be reflected in peers' attitudes toward their followers on social media. Another 7th grade boy commented that the worries about popularity status were also likely to be transferred to adolescents' motivations on social preference, made them eager to be liked by everybody.

Emotional reactions to POPSSI. Adolescents from all three participating grades listed a variety of internalizing and externalizing negative emotions that they perceived as consequences of POPSSI. These emotional reactions included sadness, upset, worry, depression, and anger. An 8th grade girl imagined that if she encountered POPSSI, she would ruminate about it and "probably go home and cry to sleep." Another boy from one of the 6th grade focus groups recalled that when peers were haunted by popularity-related issues, they became mad and tended to transfer their anger to other people (e.g., "…she

screamed out to others in the hallway like 'You're blocking me! Get out of the way!'").

A boy in the same group described the feelings co-occurring with POPSSI as "a horrible

mood."

In addition to negative emotions, many adolescents reported some unease relating

to peer relationships and social status. For example, participants in both 6th and 7th grades

admitted that they felt "left out" when they were not confident enough about their

popularity. A 6th grade boy also commented that "…if there was like a sleepover or

something with their friend group and they didn't get invited, then they would feel sad

because they're not as popular as they think…"

Frequency of POPSSI. A few respondents revealed the infrequent occurrence of

POPSSI in their daily life by describing their own encounter of this issue as "not very

often," "does not happen that much," "once a month" or even "once a year." However,

more of them acknowledge a relatively higher frequency of experiencing POPSSI as "a

lot," "quite often," "two to five times a month," or even "once or twice a week." Notably,

when a 6th grade girl made the estimation that girls were affected by POPSSI at the

frequency of once per week, she followed up that she believed this frequency in girls was

higher than in boys because girls were more sensitive about what other people, especially

boys, would think of them.

In addition to directly indicating a frequency, a lot of participants agreed that the

occurrence of POPSSI showed individual and situational variance. Discussions from a 7th

grade group revealed that POPSSI happened in adolescents whenever they failed to

attract others' attention, or their accomplishments were ignored by peers. Another 8th

grade girl also specified the individual differences in the frequency of POPSSI as "some

people want to think about it (POPSSI) constantly, but others let things go quickly".

Participants from both 6th and 8th grades asserted that the existence of POPSSI was

ubiquitous through puberty. An 8th grade girl labeled her POPSSI encounters as a

"normal cycle" by sharing that,

     "I've tried to become popular many times and it hasn't really worked. For

example, I've noticed that every time something cool happens or a big event at another

school happens, then everybody talks about it. But if I don't know any of those people, I

feel really excluded and then I get, you know, I become sad and depressed. I have my

'normal cycle'- I call it."

     Duration of POPSSI. Although POPSSI gave rise to a wide range of negative

emotions and was prevalent in adolescents' social lives, quite a few participants

mentioned that this issue did not last for a long while. Specifically, many respondents

reported that the duration of POPSSI would be no longer than a day in length (e.g., "a

couple of minutes," "a class period," "a day," or "one night"). A 6th grade boy said, "I

feel it a little bit – it's more than a feeling of being lonely but not like very long".

     However, a small portion of adolescents perceived that POPSSI continued for a

relatively longer period of time, such as more than a day at a time. For example, a 6th

grade girl believed that the uneasiness about ones' popularity status continued among

many peers until "the end of puberty." Another 7th grade boy described the duration of

POPSSI as long-term because he noticed that adolescents were easily prone to think

about how to attract others' attention and how to befriend more people. Thus, POPSSI

would be quite a normal and frequent issue for those peers.

Furthermore, many participants also believed that the duration of POPSSI was based on different situations and encounters. For instance, several 7th graders in a group offered some conditions that could terminate an episode of POPSSI. They specified that peers were no longer bothered by POPSSI when they "get more attention" or "have friends to get together". Another 8th grade boy remarked that victims of bullying felt longer duration of POPSSI while popular peers felt it more shortly:

"If you're getting bullied or picked on, it would be probably last for a longer period. But if you're popular, it would not be a big deal for you because you can realize that there's still other good things like the friends you have"

Coping strategies for POPSSI. The most frequently mentioned coping strategy that adolescents employed to address POPSSI was following popular peers or pursuing popularity. They believed that in this way, they could optimize their own popularity. Such enhancement of one's popularity status or popularity-related features was usually achieved via two primary avenues, imitating or following popular peers and chasing the popularity or trends. The former included following around, imitating, and "idolizing" the popular adolescents in their social groups. For example, an 8th grade girl noticed that girls would imitate popular girls' behaviors and dress like popular girls. An 8th grade boy from another group also observed that adolescents were prone to hang out around popular peers and act like them, to reduce nervous feelings of not being popular enough. The latter avenue to deal with POPSSI, as discussed by the respondents, was to chase the popular trends through various efforts. Adolescents provided specific actions such as playing popular games, learning popular dances, and dressing oneself following the trends. For example, an 8th grade girl mentioned that some girls even texted their same-

sex friends to exchange ideas about clothing and hair styles for the next day, to make sure their appearance was "trendy."

The second most mentioned coping method for POPSSI was to draw others' attention via self-demonstration either in real life or on social media. In the real-life social situations, participants reported that peers who were concerned about their popularity chose to present themselves by showcasing personal features (e.g., "they try to do brave things") or interrupting others' conversations in order to attract their attention. In addition, multiple social media platforms (e.g., TikTok or Instagram) provided many approaches for adolescents to catch the spotlight and thereby seemed to relieve anxiety derived from POPSSI. For example, several 7th grade participants from two focus groups all said that peers experiencing POPSSI would "post more" or become "more active" on social media. Another 6th grader girl recounted, "They try to post more on social media to be noticed. They do cool stuff and post about it, like, 'look at me. I'm funny and cool. I can do what others do so I can be cool too'."

Another frequently nominated strategy to cope with POPSSI was taking active actions to change oneself in terms of behavior, personality traits, or physical appearances. With the purpose of alleviating popularity-related insecurities, adolescents were reported to "act cool," "try to be funny," or "change themselves to more like popular people." If adolescents intended to improve their popularity status by changing their physical appearance, they would be inclined to "dress cool," "wear certain attire that is cool or trendy," or "wear makeup or nice stuff," especially for girls, as indicated by the participants. Some of the external changes required a display of the spending powers of the adolescents (e.g., buy "a certain phone or headphone").

The fourth most cited coping approach for POPSSI was seeking social support from interpersonal resources, such as friends and peer groups. Friendship in real life played an important role for adolescents dealing with concerns regarding popularity, as participants admitted that they would hang out more with friends or move to a different friend group that would not make them insecure about their popularity. Social media and the Internet enabled adolescents to connect with more people, therefore allowing them to share the concerns evoked by popularity issues. For example, a 6th grade boy expressed,

"I have some good friends from Fortnite (an online game platform). We play all kinds of games. I trust them. I can tell them my secrets, like, we trust each other. Even at school, it's hard to find a friend to talk about it (POPSSI), but if you go online, you'll be able to have that friend - that's super nice."

The fourth frequently quoted coping strategy was aggressive behavior, with both overt and relational aggression mentioned by participants. Participants from both 6th and 7th grade focus groups shared that adolescents would spread rumors about other peers to maintain their social influence or draw others' attention. A 6th grade boy remarked that not only did the popular peers spread rumors about unpopular cohorts, sometimes unpopular peers also gossiped about popular peers. A group of 7th graders specifically pointed out that both boys and girls would spread rumors to deal with the popularity crises they were faced with, but boys would be more likely to act physically aggressively or show bullying behaviors.

Other than the above-mentioned coping methods, four less cited approaches that adolescents utilized to address POPSSI were mentioned. Self-consolation or attempts to understand the issue appeared to be a way for adolescents who were suffering from

POPSSI to make themselves feel better. For example, a 6th grade girl indicated that she could understand that it was normal for her to be not as popular as other girls, and she would "just let it go." Religious coping was proposed by several 8th graders as they shared that "I like to pray, when I'm feeling down about my popularity" and "I go to church and then I ask God, and then God helps me." Self-seclusion (e.g., "hide in their room when they are at home") became a passive coping for some adolescents when they were affected by POPSSI. It is worth noting that a 7th grade boy mentioned that he even observed peers engaging in "dumb" behavior (e.g., "vaping and drugs") to earn popularity.

Table 32

Subthemes, Categories, Codes, and Examples of Adolescents' Perception on Social Status Insecurity Regarding General Social Status (SSI-G)

Subthemes of POPSSI	Categories	Frequency	Example
Subtheme 1: Manifestation of SSI-G			
	Negative impacts on social prestige	6	Being laughed at
			Being remembered in a bad way
			Becoming infamous
			Being socially awkward
	Concerns about peers in high social status having privileges	4	Peer in higher social status copying other people's ideas
			Popular peers taking the credit of jokes from the less popular ones
			"… (peers in higher social status) can be cool and do whatever they want"
	Social exclusion	4	Concerning about being not included or socially involved
			Concerning about fitting into a friend group
	Competition and pursuit of peer status	2	Competing of the peer status between peers in the higher status and lower status
			Trying to be popular over "every single kid"
	Physical appearance	2	Hairstyle or clothing
Subtheme 2: Emotional reactions of SSI-G			
	Negative and internalizing emotions and tendencies	15	Feeling unhappy, embarrassed, worried, sad, anxious, stressed, and/or depressed
			Self-questioning about why people did not like them
			Self-blaming tendency
			Losing the motivation to dress up or make up oneself
	Emotional regulation in avoidance and denial	4	Pretending not caring
			Faking to laugh of it
	Externalizing emotional reactions	2	Showing rebellion by wearing exaggerated makeups
			Checks getting red because of being angry
Subtheme 3: Frequency to SSI-G			
	Relatively lower frequency	2	"Twice a week" or "once per month"
	Relatively higher frequency	2	"A lot" or "Often"
	Frequency varied by individuals' social status or goals on social status	3	Frequency of SSI-G was more often when social status decreased
			Frequency of SSI-G was more often for adolescents pursuing higher social status
Subtheme 4: Duration of SSI-G			
	Relatively shorter lasting time	7	"Short time, a minute or two to five minutes"
			"Sometimes less than a day"
	Relatively longer lasting time	4	"A couple of days" or "a week"
	Duration varied on adolescents' social status or expectations on social status	3	Duration of SSI-G was shorter for popular adolescents
			Duration of SSI-G was longer for adolescents who wanted to be liked by everyone
Subtheme 5: Coping strategies for SSI-G			
Adaptive coping			
	Self-demonstrating and Bragging	5	Acting cooler
			Making jokes during classes
			Bragging about money, grades, social status, etc.
			Making arguments in public
	Acting positively	4	Learning from each other
			Being "better than other people"
			Being funny
			Improving personalities
	Posting on social media	2	Posting things more often on social media
	Turning to friends	2	Hanging out with other friends who liked them
Maladaptive coping			
	Acting meanly or unfriendly	3	Becoming mean
			Saying bad things to people to lower down their status
			Treating friends hypocritically or teasing friends

Note. The frequency of the categories refers to the times a specific code within this category was mentioned or discussed by a participant in the focus groups.

Theme 3: Social Status Insecurity regarding General Social Status (SSI-G).

Manifestation of SSI-G. The foremost specific concern regarding adolescents' general standing among peers was their self-image and social prestige. Adolescents were fearful of being seen in a negative way because it would adversely affect their social reputation. Several 6th graders shared their observation that when peers tried to be funny but overreached, others would laugh at them. Thus, those peers were remembered "in a bad way" and became "infamous." A girl in that group further recalled that during group activities, if she sat too close to the boys rather than staying in the "normal girl group," which was visually far away from the boys' group, other girls would make fun of her and laugh at her for being too close to boys. She did not want to be commented on in that way. The concern about social awkwardness was also considered as a manifestation of SSI-G. An 8th grade boy indicated that the worry of becoming "socially awkward" was another specific manifestation of adolescents' concerns regarding general peer status. He explained his understanding of "socially awkward" moments by giving examples such as when someone did not get the chance to be introduced to other peers or if someone did not have as many friends as others.

Participants also actively discussed that peers with high social status, especially in high popularity status, had some social privileges or advantages over others. Such privileges or advantages usually resulted in the detriments of other peers' social power or social influence. For example, an 8th grade girl stated that someone with relatively higher social status among peers took the authorship of other peers' ideas to post on social media and even received more "likes" and attention than the original creator because of their higher social status. She noticed this because her own ideas were also copied by a

lot of peers before without her permission, which made her feel offended. Another group of 6th grade adolescents noticed a similar phenomenon where they found that peers with higher social status (e.g., more popular) felt that they had the right to take the credit for the jokes created by peers with lower status, and thus received more attention and recognition. A boy in that group specified that it was very rarely the case that "unpopular" peers could be recognized for their own good jokes. It was more often the case that the "popular" peers took the jokes and shared them as their own. Their peers would be amused by the jokes told by popular peers regardless of the fact that their ideas were not original. In addition, participants in 6th and 8th grades both concluded that adolescents with high social status were regarded as cool and thus had the right to "do whatever they want" or "get more attention." Such privileges made adolescents worried about their own social standing among peers.

The next frequently quoted occurrence of SSI-G is associated with social exclusion. Some 7th graders agreed that peers were concerned if they were "not included" in social activities or "not fitted into a friend group" because they did not want to be left sitting alone without any friends. Additionally, a 6th grade girl pinpointed that during recess hours, the position where one was sitting in the peer group was sometimes regarded as a visual representation of their social status. She clarified that peers with higher social status usually took the "central spots" and let the "followers" sit around them. Peers in the lower status had to sit in the outskirt areas. Moreover, an 8th grade boy claimed that there existed a salient peer hierarchy in his class as he could clearly tell who was "at the top" and who was "at the bottom" when thinking of the issues that people

might have about their social standing. Further, those who were "at the bottom," he

noted, were usually "not socially involved."

A handful of the participants suggested that the competition and pursuit of peer

status might elicit adolescents' concerns about social status in general. As a 6th grade boy

implied, the contest between peers in higher status and lower status could be constant

because the former wanted to maintain their attained status while the latter hoped to

promote their social standing. A 7th grade boy even noticed that some peers longed to win

the popularity contest over "every single kid."

Lastly, a few specific considerations pertinent to one's physical appearance (e.g.,

hairstyle) were also worth considering as representations of adolescents SSI-G. For

instance, a 6th grade girl pointed out that peers, especially girls, were prone to dress or

have the hairstyle that were similar to the "popular girls" to avoid being regarded as

"outdated."

Emotional reactions to SSI-G. When it came to the question about feelings

associated with SSI-G, the participants mentioned a wide variety of negative emotions,

ranging from being unhappy, embarrassed, worried, sad, anxious, and stressed, to being

depressed. A 7th grade girl believed that peers would not be happy if they sensed their

social status, especially popularity status, decreased. A 6th grade boy also noticed that if

peers realized that they were in the lower status, those peers would feel worried and sad.

Another 8th grade girl added that for those who were at "the top" of peer hierarchy, they

bore great pressures to protect their status and hence were very anxious about the

potential loss of their attained peer status. The negative emotions evoked by SSI-G were

subsequently associated with a series of internalizing problems. Some adolescents

showed self-blaming tendencies. For example, when they pondered the reason why people did not hang out with them, they attributed it to their own fault, such as their appearance. A 7th grade boy figured out that some peers exaggerated the worry about social status by caring about "every single person's opinion on them." Moreover, an 8th grade girl claimed that if some girls were "really sad" about their current social status, they would even lose the motivation to dress up themselves (e.g., "they'll maybe stop putting on their mascara and stop wearing their nice jewelry and stuff").

Some participants were aware that peers showed denial or avoidance attitudes while suffering from SSI-G, either intentionally or unintentionally. A girl in one of the 8th grade focus groups shared that although some peers were very fearful of losing followers on social media, they pretended not to care about it. A boy in the same group followed up that "some of them try to be fake, I guess." Similarly, a 6th grade boy in another group recounted that for some adolescents, if they had concerns about their social status, they would even laugh at themselves to purposely demonstrate how tough they were for being so uncaring about their own social standing.

A small portion of participants recalled how peers expressed externalized emotional reactions when facing SSI-G. For instance, some girls showed rebellion (e.g., wearing exaggerated makeup when not allowed to) while some boys became angry if being laughed at (e.g., "cheeks will get red").

Frequency of SSI-G. A few participants shared relatively infrequent occurrences of insecurity regarding general social status, such as "twice a week" or even "once per month." Meanwhile, there were a small number of participants who mentioned a

relatively higher frequency of SSI-G, such that they described the frequency as "often" or "(happened) a lot."

On the other hand, some participants concluded that the occurrence of SSI-G varied by individual, especially when considering the level of peer status that individuals had or aimed to achieve. For example, an 8th grade boy proposed that if peers were regarded as "really popular," they did not need to worry about their social standing among peers; however, once their status started to "drift down," they were bothered by SSI-G more often. A 7th grade girl also believed that SSI-G happened more frequently for adolescents who had the goal to "be popular," "gain friends," or "get more people to like them."

Duration of SSI-G. Many participants shared that the duration of SSI-G was usually not very long. Normally, it only lasted several minutes and was not longer than one day. However, several other participants indicated that the insecurity regarding ones' general social status affected them for a relatively longer time, lasting from "a couple of days" to "a week."

There were also a few adolescents who believed that the duration of SSI-G varied case by case, depending on individuals' attained social status or goals for social status. A 6th grade boy suggested that popular adolescents might only be affected by SSI-G for "a couple of minutes" because other peers would demonstrate social supports to them. In addition, several 7th graders in another group discussed that some peers who aimed to promote their social status by making "everybody like them," suffered from SSI-G for a very long time as they had to constantly change themselves to satisfy everybody. A girl

in that group commented, "they would always be sad and concerned because there was always someone who don't like them."

Coping strategies for SSI-G. The most frequently discussed coping tactic in response to SSI-G was self-demonstrating and bragging. Participants from both 6th and 7th grades stated that if peers had concerns regarding their social status, they would try to "act cooler," "make arguments with people in public," or "make jokes during classes" to show off or draw others' attention. Moreover, several 7th graders in the same focus group all remarked that some adolescents bragged about "stuff they have or things they do," when they felt SSI-G, including their spending power, academic competence, and social status.

The next frequently cited coping style was acting mean or unfriendly in social interactions after SSI-G. For example, an 8th grade girl recalled that when some adolescents experienced SSI-G, they seemingly did not care about the issue but tended to be "mean" to friends. She further accounted such meanness as treating friends hypocritically or even teasing friends. A 7th grade boy also recounted that peers would say "some things that wouldn't be very nice" to lower other peers' social status, in an attempt to raise their own social status and to relieve feelings of SSI-G.

In contrast, acting positively was another frequently reported coping strategy of SSI-G. For instance, participants from all participating grades listed that adolescents could "learn from each other," "be better than other people," "be funny," or "improve their personality" to address the concerns they confronted pertaining to their social status.

The last two relatively less frequently discussed approaches for dealing with SSI-G were posting on social media and turning to friends. Some peers suffering from social

status-related insecurities were observed to "frequently post on social media." Other

adolescents were inclined to "hang out with other friends" who liked them and thus

would not make them feel uncomfortable about their own social standing.

Study Two Discussion

The aim of the present study was to probe how various types of social status

insecurity (SSI) were perceived and addressed by early adolescents, as well as the

specific representation, incidence, emotional impacts, and coping tactics pertaining to

these insecurity dimensions among middle school students. This qualitative study

broadens the current literature on SSI regarding various dimensions of social status

among peers (i.e., social preference, popularity, and general status) via corresponding

major themes and related subthemes. Furthermore, the interconnectedness and

dissimilarities in popularity insecurity (POPSSI), social preference insecurity (SPSSI),

and general social status insecurity (SSI-G) were detailed through the focus group

discussion results. Relying on quantitative approaches, previous research has initially

found that the generic insecurity regarding one's overall peer status is predictive of

aggressive behavior (e.g., Li & Wright, 2014; Long & Li, 2019), and that popularity

insecurity is associated with internalized problems (Long et al., 2020). However, no

study, to my best knowledge, has thoroughly examined the pervasiveness, scope,

emotional and coping mechanisms in response to the insecurities pertaining to social

preference, popularity, and general standing among peers altogether using intuitionistic

perceptions from adolescents. Using the focus group methodology, this study enriches the

literature by revealing a detailed and informative awareness of differential social status

insecurities with regard to the specific manifestation, emotional responses, duration,

frequency, and coping styles. With the insights extracted from the focus group

interviews, researchers may adapt a more integrative quantitative instrument with

multiple dimensions to investigate social status insecurity in the future. In addition, a

better understanding of the comprehensive nature along with the existence and influence

of different types of SSI may enable parents, educators, and mental health professionals

to better facilitate adolescents to curb the development of SSI in different peer status

domains. These influences could also help adolescents to become more resilient in the

face of adversities associated with SSI through targeted prevention or intervention

programs addressing SSI.

Specific Manifestations of Different Types of Social Status Insecurity

When adolescents are concerned or worried about their status among peers, no

matter the insecurity is relevant to social preference, popularity, or general social status,

their apprehension is manifested in a variety of aspects in their social lives, including the

fear of peer victimization, the doubt in peer acceptance, friendship, and social

connectedness, and the increasingly intensive competition on social standing throughout

adolescence. These diverse manifestations not only confirm the ubiquitous presence of

SSI in adolescents, but also demonstrate the nuanced awareness among adolescents and

the explicit patterns of the differentiated forms of SSI. Past research has demonstrated the

prevalence of the insecure feeling regarding general social status among both American

and Chinese adolescents (Li et al., 2010; Li & Wright, 2014). Furthermore, popularity

insecurity has also been shown as a common social cognition in Chinese young

adolescents (Long et al., 2020). The current study on American adolescents further shows

that primary manifestations of popularity insecurity are shown as concerns related to the

competition on popularity or peer hierarchy, peer victimization, other people's view, and

the presentation of their friendships in reality or online. The present study further reveals

that the insecurity regarding social preference status is specifically presented in

adolescents' attention on their own likeability and social relatedness. In addition, social

preference insecurity presents the concerns about the issues that adolescents may

encounter in their social lives or their social profile in real time as well. Moreover, the

concerns about others' opinions and judgement, and the fear of being victimized in peer

interactions were also important manifestations of social preference insecurity. If

adolescents sense insecurity based on the overall standing among peers, their unease

occurs over social prestige, unbalanced social privilege, the victimization experience in

terms of social exclusion, and the growing competition and pursuit of social standing.

Those extensively diverse manifestations of SSI regarding the three types of social status

suggest that different types of SSI coexist concerning a wide range of aspects of peer

experience and relationships.

It is noted that, in addition to the direct concerns relevant to social status, the fear

of being victimized by bullying or relational aggression is a predominantly generalized

manifestation considered as an element of social status insecurity. The status differential

between the perpetrators and the victims of school bullying or adolescent aggression has

been well-documented in past literature, underscoring a fact that the adversity in peer

status is highly associative with peer victimization (e.g., Berger & Rodkin, 2009;

Kawabata et al., 2014; Rodkin & Berger, 2008). Adolescents with low popularity or poor

likeability are often subjected to a greater danger of mistreatment from peers, such as

physical aggression, verbal aggression, rejection, and isolation (Rubin, Coplan, &

Bowker, 2009; Sandstrom & Cillessen, 2003). A more recent study from Long et al. (2020) found that for adolescents with relatively lower popularity, the experience of being relationally victimized by peers was strongly linked with their popularity insecurity. Based on the daily observation and experiences in the peer context, adolescents themselves may be aware that if they are at a disadvantage in peer groups, such as being unpopular, disliked, or being at the bottom of the peer hierarchy, they are more likely to have the misfortune to become the target of relational aggression or social exclusion from peers. Bearing such acknowledgement in mind, once adolescents are concerned about their attained status in comparison to their peers, they may generate a fearful mindset of peer victimization. Correspondingly, the fear of peer victimization, especially relational victimization, is likely an important element of SSI. Therefore, for the future quantitative examination of SSI, it is conceivable to add new items to reflect this peer victimization as a critical part of SSI.

As the participants discussed the specific demonstrations of social status insecurity that focus on distinct dimensions of social status, namely, popularity, social preference, and general social status with separate prompted questions, both overlaps and diversifications among subtypes of social status insecurity in the current study were identified. In addition to the abovementioned apprehension of peer victimization and social exclusion, insecurity regarding multiple types of social standing also co-occurs with the worries in adolescents' interpersonal connectedness, attentions to other people's opinion, and friendship. These overlapped manifestations seem to be more reflected between popularity insecurity and social preference insecurity. However, even though the representations of popularity insecurity and social preference insecurity appeared to be

similar in general, nuanced divergences were also observed through the detailed

discussion about these two forms of SSI. Specifically, the manifestations of social

preference insecurity appear more often at the immediate and personal level in the

adolescent social interactions, as more participants expressed the direct concerns toward

social inclusion and peer acceptance when outlining this type of social status insecurity.

Instead, insecurity regarding popularity is more reflected at a relatively broader

interpersonal level, as more adolescents in the focus groups indicated that the competition

for popularity or dominance in the peer group was a predominant manifestation of

popularity insecurity, while the concerns of social relationship was not frequently

mentioned as a major representation of popularity insecurity. Popularity and social

preference exhibit different influence on adolescents, as the former is usually tied with

social prestige and dominance, which is usually embedded at a group level in the peer

context, and while the latter refers to the likeability and peer acceptance, which matters

more in the direct person-to-person social level (Cillessen & Marks, 2011; Parkhurst &

Hopmeyer, 1998). Conceivably, the insecure perceptions relevant to popularity and social

preference are also shown in different magnitudes of their social lives, with the former

manifesting more in the comparatively distal social level and the latter happening more in

the proximal social level in peer relationships. Additionally, on the matter of concrete

representations of general social status insecurity, the concerns out of social profile (e.g.,

fearing that they may give negative social impression to others) or the privileges that

higher status adolescents may have over the lower status counterparts (e.g., fearing that

their own social credit may be taken away by someone who is in higher social status)

stand out as evident manifestations of this type of SSI. These patterns of finding

corroborate previous quantitative research about the various expressions of social

hierarchies in adolescents, especially expressed in unbalanced social power and privilege

between high status versus low status youth (Andrews, Hanish, Updegraff, Martin, &

Santos, 2016; Pattiselanno, Dijkstra, Steglich, Vollebergh, & Veenstra, 2015). The

specific concerns regarding different dimensions of social standing could be perceived in

multiple aspects in adolescent social life, indicating that various forms of SSI are

prevalent in the daily social lives of adolescents and could exert broad effects in various

areas in their social development.

Although we did not propose any gender related manifestations of different types

of SSI, several unique findings did emerge from the focus group data when discussing the

insecure feelings of girls. Some participants believed that for adolescent girls, the

consciousness of physical appearance and image became a part of their social preference

insecurity. In comparison to boys, the social standing and acceptance in girl peer groups

appear to rely more on physical appearance (Vannatta, Gartstein, Zeller, & Noll, 2009;

Zimmer-Gembeck & Webb, 2017), leading the concerns on appearance to serve as more

pronounced components of social preference insecurity of adolescent girls. Likewise,

other participants perceived that girls cared more about their popularity because some

girls are eager to be favored by others and take leadership in peer cliques. The literature

shows that girls perceived as high on leadership also had higher popularity and larger in-

group power that enabled them to manipulate the social relationships of the lower-status

members within the group (Gangel, Keane, Calkins, Shanahan, & O'Brien, 2017). By

keeping those leadership-related social prerogatives and benefits in mind, adolescent girls

generate concerns about popularity and ambitions of being a leader in peer groups simultaneously.

Emotional Reactions of Different Types of Social Status Insecurity

The nature of social status insecurity shows a sense of uneasiness and stress. When adolescents experience multiple forms of SSI, they likely suffer from an array of emotional distress. Some of those emotional patterns appear to be similar in those three types of SSI. The most frequently nominated emotional outcomes subsequent to all three types of SSI are a variety of negative or even internalizing emotions, including the feelings of sadness, worries, stress, and/or depressed symptoms. The insecurities about both social preference and generic social status are accompanied by the sense of self-doubt and disappointment at the loss of peer liking. Additionally, adolescents also show emotion regulation to react to social preference and generic social status insecurity. For example, they display denial (e.g., laughing away the insecurities they may have) or avoidant (e.g., concealing their true feelings of the insecurities) attitudes toward the social preference insecurity and the insecurity regarding general social status. The insecurities regarding popularity as well as general social status are both linked with externalizing emotions such as anger and rebellious tendencies. The insecurities relevant to popularity and social preference statuses take place along with specific apprehensive emotions pointing to peer relationships or status, such as feeling the need of being included in the peer group and fearing of losing social status or friends. In addition to those similar emotional reactions among the three forms of, or between any two forms of social status insecurity, a few unique emotions related to social preference insecurity emerged in our data. Specifically, when adolescents suffer from social preference

insecurity, they tend to be more emotionally sensitive about jealousy and/or betrayal during interactions with friends. To sum up with the emotional outcomes SSI, adolescents have been emotionally victimized by diverse forms of social status insecurity in this study.

Considering that adolescent social status insecurity is a comparatively innovative and thus understudied phenomenon, the emotional consequences followed by this kind of social cognition have not been adequately theorized in the prior research. In addition to the existing revealed behavior fallouts of general social status insecurity (Li et al., 2010; Li & Wright, 2014), only one recent study identified the positive associations between popularity insecurity and internalizing problems, including anxiety and depressive symptoms, in Chinese adolescents (Long et al., 2020). Evidence from the current qualitative study clarifies a rich variety of emotional reactions that adolescents have when they feel insecure about their popularity, social preference, and general status among peer groups, most of which were considered as negative and destructive to adolescent well-being. Moreover, empirical findings focused on the other types of insecurities, such as emotional insecurity or attachment insecurity, have backed the conclusion that social status insecurity could also inflict emotional effects to adolescents (Cummings & Davies, 2010; Downey et al., 1998; Gorrese, 2016). For instance, preadolescents who were more sensitive about their social preference expressed more distress tendency compared to their counterparts who were not so sensitive when they were rejected in an experimental setting (Downey et al., 1998). Attachment insecurity with parents and peers likely leads adolescents to feel emotional distress (e.g., depression; Brumariu & Kerns, 2010; Gorrese, 2016). Extensive negative emotions

related to social status insecurity as revealed in the present study may raise awareness of the maladaptive impact of SSI in the realm of adolescent development. It could also provide informative insights for parents, school administrators, and developmental psychologists to recognize the potential causes of adolescent emotional difficulties and hence address them in an effective way.

Incidence of Different Types of Social Status Insecurity

The incidence of popularity insecurity, social preference insecurity, and the insecurity pertaining to the overall peer status displays a wide spectrum of variability and individual differences. The occurring frequency of all three types of social status insecurity ranged from rare (e.g., once per month) to more often (e.g., almost every day) in adolescents. In addition, social preference insecurity was perceived to increase with age, as the participants indicated that peers become increasingly aware of other people's opinion with age. The current study also uncovered explicit individual differences in the frequency for forms of SSI. In particular, social preference insecurity emerged immediately when adolescents encountered social exclusion, peer victimization, and the alienation of friends; adolescent insecurity regarding popularity occurred along with neglect from peers in social context; general social status happened more often for those who experienced a decrease in social status or those motivated to pursue higher status. The pervasiveness of multiple forms of SSI found in the focus group study seems to provide greater variations and more detailed information than what has been reported in past survey studies.

Likewise, the duration of multiple forms of SSI varies considerably by individuals. For some adolescents, their insecure conditions would disturb them only

momentarily or for a relatively short period of time (e.g., no more than a day). However, a number of the participants in the current study acknowledged that the existence of various types of SSI could affect adolescents for a longer duration, ranging from weeks to even longer. This finding corroborates the pervasiveness of this social cognition through adolescence and thereby echoes the empirical findings from the quantitative studies (Li & Wright, 2014; Long & Li, 2020). Moreover, according to the discussion results, social preference insecurity lasted longer if adolescents were worried about their friends' acceptance and preference, rather than the approval of other people. In addition, popularity status insecurity lasted longer for victims of bullying, while popular adolescents were seemingly able to shake off the impact of POPSSI more quickly. Similarly, the insecurity pertinent to general peer status also seemed to last for a shorter time for popular adolescents. However, if individuals held overblown expectations of others' liking, their general social status insecurity tended to last longer. Variations in the duration of different social status insecurities are supported by the literature, such that the victimization experience, attained social status, and friendship quality all play important roles in adolescents' emotional security and stability in their peer context (Li & Wright, 2014; Long et al., 2020; You & Bellmore, 2012).

Coping Strategies for Different Types of Social Status Insecurity

Based on the group discussion concerning what adolescents would do in response to multiple types of social status insecurity, this study reveals nuanced approaches that adolescents would prefer adopting. When adolescents sensed crises in social preference, noticed any threats on their popularity, or were affected by apprehensions relating to the general attained social standing, they would resort to a wide range of tactics to ease such

tensions and address the issues. Those tactics can be generally summarized into the two classifications, namely, adaptive coping and maladaptive coping. In the former coping tendency, adolescents would take active and socially constructive actions to deal with different forms of the SSI, for example, self-demonstration, self-improvement, or seeking social support. In the latter coping tendency, adolescents would display destructive or socially maladjusted reactions as coping responses subsequent to SSI, including aggressive or risk behaviors. Also, some adolescents would show passive coping reactions while experiencing SSI, including the tendencies of self-isolation or self-seclusion. When confronting specific forms of SSI, adolescents showed differentiated and likely targeted coping approaches to deal with different SSI.

Self-demonstration was one of the primarily used coping mechanisms that emerged from the focus group interviews. Adolescents relied on this avenue to attract the attention of others, express themselves, and make impressions on others through external attributes or actions. To cope with the concerns caused by social preference relevant issues, adolescents would strive to be the center of the peer group and try to be funny because they believed these efforts could bring others' preference back to them. The predisposition to demonstrate oneself was marked as a universal and powerful option to deal with popularity insecurity as well. Adolescents in this study discussed a great deal of detailed processes to actualize the coping for popularity insecurity, including explicit and frequent self-expression in real life or on social media, and polishing ones' external attributes and physical appearance, such as clothing, hairstyles, or even through spending powers (e.g., buying certain phones or headphones). When facing a crisis in general social status, adolescents would attempt to become the spotlight through appealing cool

or fun, or through bragging. Such a self-demonstrating propensity after multiple forms of SSI resonates with the previous research that has looked at the social profile of high social status. Adolescents regarded as popular or admirable are to some extent labeled by peers as attractive, socially visible, and dominant (LaFontana & Cillessen, 2002; Lease, Kennedy, & Axelrod, 2002; Zhang et al., 2018). As a result, the motivation to stand out from peers may also be recognized by adolescents as a method to maintain or even promote their current peer status. Conceivably, they are more likely to demonstrate themselves through various approaches once they feel the concerns in their social status. Some of such self-demonstration processes are positive and prosocial (e.g., trying to make people laugh), whereas some are considered as disruptive (e.g., interrupting others' conversation).

The present study also shows that adolescents feel forced not only to make themselves "stand out", but also to follow trends in their peer groups, imitate popular peers, and conform to others' expectations within the peer context. Participants of this study proposed that these conformity coping styles could particularly help them to mitigate social preference and popularity related insecurity. Under the pressure of the popularity related discontent, adolescents intend to align their behavior, expressive style, and external attributes (e.g., clothing) with those of their popular peers, because they view those popular peers as models and thereby believe that imitating them could improve their own popularity accordingly. Peer influence, especially the influence from popular peers, could widely contribute to and even direct the behavior, socializing, and lifestyles of other adolescents within the social network (Dijkstra, Cillessen, & Borch, 2013; Gil, Dwivedi, & Johnson, 2017; Hofstra, Corten, & van Tubergen, 2016).

Additionally, conformity as a coping mechanism was used for social preference

insecurity, which evidenced the effectiveness and wide usage of this coping style to

address SSI.

The influence of peers in the areas of friendship, support, and social

connectedness stands out as an important recourse that adolescents could resort to while

experiencing apprehensions in their social standing. Seeking social support from friends

in person and on social media provides great relief and comfort, which allows

adolescents to persevere through perceived crises in their social status. Friendship

promotes positive peer interactions (e.g., social support) and buffers impact from adverse

peer experiences (e.g., victimization; Boulton, Trueman, Chau, Whitehand, & Amatya,

1999; Kawabata & Crick, 2011). Therefore, the benefits of friendship pervade multiple

areas of adolescent mental and social well-being, including higher evaluations on self-

esteem and self-worth, stronger emotional security, and more willingness to disclose

oneself to intimate others while under the pressure of interpersonal stress (Bagwell,

Newcomb, & Bukowski, 1998; Burgess, Wojslawowicz, Rubin, Rose-Krasnor, & Booth-

LaForce, 2006; Rose & Asher, 2000). When trapped in stress derived from peer status,

turning to friends is a robust coping mechanism that adolescents prefer to adopt. Not only

friends in real life, friendship on social media also serves as a preferable support for

adolescents to address social status insecurity. This is congruent with the literature in

which social media is labeled as a space where adolescents can recover from daily

pressure (Frison & Eggermont, 2015; Wilhsson et al., 2017). Another source of social

support that adolescents would resort to involves disclosing social status-related issues to

other people they trust, including, for example, a social worker at school. Evidence from

the literature also support that disclosure to trusted people is recognized as a helpful

avenue to deal with acute and chronic stress that adolescents face within their daily life

(DeFrino et al., 2016; Tandon, Dariotis, Tucker, & Sonenstein, 2013).

It has been documented in the literature that aggressive behavior, especially

relational aggression, occurs as a salient consequence of social status insecurity (Li et al.,

2010; Li & Wright, 2014; Long & Li, 2020). This is in line with findings from current

research where adolescents indicated that peers would display aggressive, disruptive, and

unfavorable actions if they were under the tension of social status insecurity. Because

aggressive behaviors in overt and relational forms can demonstrate dominance and social

power to manipulate others' social relationships, they are likely perceived by adolescents

as ways to increase their own social standing and influence among peers. Consequently,

if adolescents are worried about popularity, social preference, and general social status,

they may take some aggressive actions to protect or even enhance their current standing.

Additionally, some participants suggested that this aggressive coping process was more

frequently used by boys to handle popularity insecurity. The few prior studies that

identified the association between social status insecurity and adolescent aggression have

not addressed gender moderations, but treated gender as a covariate (e.g., Li et al., 2010;

Long & Li, 2020). Qualitative findings in the present study suggested that even though

both the overtly and relational aggressive tendencies subsequent to social status

insecurity were displayed by both adolescent boys and girls, the inclination of using

bullying as a way to cope with popularity status insecurity appeared to be endorsed more

by adolescent boys.

There were some other active coping skills suggested by the participants of this

study. When faced with insecurity pertaining to social preference and general social

status, participants proposed several positive ways to improve the situation, including

improving one's personality or making oneself more favorable. They believe those self-

improvement endeavors could promote one's likeableness or social standing among

peers. Among the research that has focused on the links between personality traits and

social status, the associations between the personality dimensions in extraversion and

agreeableness and social acceptance have been repeatedly identified in school-age

adolescent samples (Anderson, John, Keltner, & Kring, 2001; Andrei, Mancini, Mazzoni,

Russo, & Baldaro, 2015; Wolters, Knoors, Cillessen, & Verhoeven, 2014).

Understandably, with an intention to overcome insecure feelings regarding their social

preference as well as generic social standing, adolescents may try to improve their

personal characteristics, making themselves more personally acceptable and favorable by

peers, and ultimately enhancing their social status. In addition, to cope with the

popularity-evoked insecurity, participants indicated the self-consolation (e.g., try to

understand and admit the issue) and religious coping (e.g., praying and going to church)

as solutions. Given that the participants in this study were students of a Catholic school, it

seems natural for them to seek religious coping if they encounter mental and school-

related stress (Forrest-Bank & Dupper, 2016; Terreri & Glenwick, 2013).

In addition to active coping, adolescents also recognized passive coping that

might occur when addressing social status insecurity, especially for social preference

insecurity. For example, some reported isolating or secluding oneself from social

interactions when affected by concerns of social preference and popularity, while others

reported displaying avoidance and a denial attitude toward social preference insecurity. Social withdrawal is usually detected as a behavioral outcome associated with adversities in social status, such as unpopularity or peer rejection (Bowker & Etkin, 2014; Rubin et al., 2009; Sandstrom & Cillessen, 2003). The present study also observed avoidant and self-seclusion tendencies as reactive coping to address worried feelings about social preference status or popularity. In addition, substance use, such as "vaping and drugs," was mentioned by a few participants as an uncommon yet greatly harmful coping behavior in response to popularity insecurity. Some relevant research has pointed out that risky but adult-like behaviors can benefit adolescents with some desirable outcomes in their social profile, such as higher popularity or admiration from peers (Agan et al., 2015; Moffitt, 2007). As a result, for some adolescents who felt discontented or insecure about their popularity, they tended to take advantage of risky acts to satisfy their psychological needs and boost their popularity.

Limitations and Recommendations for Future Research

This qualitative study provided a comprehensive understanding about the specific representations, scope, and consequences of multiple forms of adolescent social status insecurity on emotional and behavioral developments. However, several limitations should be taken into consideration while interpreting the findings of this focus group study. First, the relatively small sample of this study was recruited from an urban, private school in a community where the living population might not be diversified enough, especially in terms of ethnicity and socioeconomic status. The sample of this qualitative research is unlikely adequate to represent the heterogeneities of all adolescents. Thus, it may be difficult for researchers to generalize the findings from the current sample to

adolescents with different demographic compositions. Therefore, it is helpful to examine

the current topics in representative adolescent samples in future research and investigate

variations (e.g., ethnic difference) in the occurrence and effects of multiple types of

social status insecurity among adolescents.

The second limitation of the current study is related to recruitment. The

participant recruitment process was primarily dependent on the assistance of the

homeroom teachers of the participating school. Moreover, to minimize the potential

interference on the participants' school schedule and daily operation of the participating

school, the homeroom teachers and the school principal facilitated the schedule of the six

focus groups. This setup may limit the randomization of the sampling and the

representativeness of the participating adolescents to some extent. Future research may

consider extending the recruitment through online social media sites to work out a data

collection schedule that is more likely to overcome time constraints of participants and

thus include more representative adolescents to probe their perceptions on social status

insecurity.

In addition, during the focus group discussions, we asked the interview questions

in a general rather than a personal way, to avoid the potential concerns that the

participants might have when discussing personal experiences in a group setting. For

example, instead of asking "What concerns do *you* have about not being liked by peers?",

we asked the question "What concerns do *peers in your age* have about not being liked

by peers?". Although this pattern of interview questions in the present study prompted

productive group discussions, it might also have made the participants share the social

status insecurity-related perspectives based on their observations or even extrapolations

from peers' experience, which might not entirely reflect the precise occurrence and impacts of social status insecurity. As social status insecurity is a relatively personal-sensitive concept in social cognition, a focus group discussion based on general interview questions may not adequately capture such private information on this insecure perception. Future research may employ a mixed method design, such as individual interview and anonymous surveys, to comprehensively explore the sensitive but underrepresented facets of social status insecurity.

Finally, a few gender-specific features relevant to the coping mechanism of social status insecurity emerged through the group discussions. For example, boys were specifically observed to display various aggressive tendencies while feeling insecure about popularity. Given that the primary research objective of this study was to probe an overall picture of the occurrences and implications of multiple types of social status insecurity among adolescents, gender-specific interview questions during the focus group discussion were not included. Hence, follow-up studies may include gender-related research questions and interview questions to explore how different social status insecurities may occur and affect adolescent boys and girls in different aspects.

Conclusion

Social standing among peers is of great importance for adolescents in their social development and interpersonal relationships. The concerns regarding one's popularity, social preference, and general status in peer hierarchies become increasingly intensive during adolescence. Extending previous research on adolescent social status insecurity, this study adds to the literature by revealing a comprehensive perspective of this phenomenon. Findings of the focus group discussions identified specific manifestations,

occurring duration, instant and lasting emotional impacts, and the coping mechanisms of

multiple forms of SSI in adolescents. With such detailed knowledge about adolescents'

perceptions and reactions to various social status insecurities, parents, educators, and

mental health professionals may be more effective in helping adolescents address the

developmental issues incited by SSI.

Results from focus group interviews revealed that the manifestations of popularity

insecurity, social preference insecurity, and general social status insecurity could be

reflected in diverse aspects of adolescents' social interactions and contexts. Adolescents'

concerns about their own social profile and prestige, their external attributes and physical

appearance, their experiences of peer exclusion and victimization, and their lives in social

networks can all become representations of SSI. In a typical peer context where the

concerns about various aspects of their social lives are easily evoked, multiple types of

social status insecurity are also prevalent consequently and can exert profound negative

impact on adolescent well-being overall.

Focus group results also identified various emotional adversities as a result of

multiple forms of social status insecurity. Adolescents experiencing SSI are likely to

suffer from a series of negative or even internalizing emotions, which is a great threat to

adolescents' mental health. Even though participants indicated attempts to regulate their

emotions after being adversely impacted by SSI, those emotional regulations tended to be

more passive in the present study, as they were usually shown as denial or avoidant

attitudes. When facing constant uncertainty and apprehension about their own social

standing, adolescents are very likely to experience negative emotional consequences, as a

result, their maintenance of a steady mindset during peer interactions and socializations is severely jeopardized.

The impact that social status insecurity exerts on adolescent development and overall well-being shows great individual differences. Participants discerned that insecure feelings regarding popularity, social preference, and general social status occurred at different frequencies and with various duration among adolescents. Differences in individual, situational, and inducing factors render the scope of social status insecurity presented in various ways impactful to adolescents. It is suggested that some adolescents, such as victims of bullying or those with unrealistic expectations about their social preference status, might be more vulnerable to these social standing-related insecurities.

Furthermore, when suffering from social status insecurity, adolescents are likely to cope with this issue with a variety of approaches in both adaptive and maladaptive ways. Focus group results suggested that adolescents tended to actively address social status insecurity through self-expression, self-improvement, changing external attributes such as clothing or hairstyle, and by seeking social support from friends and trusted people. Some of those active coping methods can be considered constructive strategies, such as improving oneself to be more agreeable or seeking social support. On the contrary, some destructive reactions like aggressive behaviors, unfriendly attitudes towards peers, and substance use were also indicated by adolescents as maladaptive coping reactions for social status insecurity. In addition, participants also indicated passive responses to deal with social standing-related issue, including self-isolation or avoidance. To sum up, it appears that when suffering from concerns and anxiety about

one's social standing, adolescents are likely to cope with the issue through both constructive and socially inappropriate or negative strategies.

Findings presented in the focus group study provided a comprehensive and holistic understanding of social status insecurity in the realm of adolescent social development. The specific representations, emotional consequences, duration and frequency, and coping strategies related to the insecure feelings regarding popularity, social preference, and general social status were discussed in the present study. Results of this study lay a solid foundation for the theoretical framework of social status insecurity that may guide future research on adolescent social status insecurity. Enriched by the in-depth and detailed knowledge obtained from this study, targeted prevention or intervention programs may be designed to help adolescents experiencing social status insecurity to overcome social and emotional difficulties and improve their well-being.

General Discussion

Adolescents have an increasing desire to engage in peer relationships and place growing emphasis on a satisfactory social standing among peers. Being in the midst of a typical peer environment where many peers are actively pursuing higher social status, adolescents can easily sense that their attained status is not high enough or is threatened by others (i.e., social status insecurity; Li et al., 2010). Social status insecurity (SSI) has been identified as a pervasive social stressor and could yield detrimental effects on adolescents' adjustment and social behaviors (Li & Wright, 2014; Long & Li, 2020). Building on this earlier work, an in-depth investigation of the dimensional heterogeneities, the precursory factors, and the broad developmental implications of SSI were conducted in this study. Moreover, scarce attention has been given to the explicit

representations, frequency and duration, emotional reactions, and coping mechanisms for specific social status insecurity, warranting a holistic understanding of this social status-related insecure perception in adolescents. Utilizing a mix method design, the current research provides a thorough understanding of multiple forms of SSI as well as their roles in adolescent well-being. Such knowledge enriches the literature in the field of adolescent social development.

Both quantitative and qualitative studies in the present research provide informative and comprehensive insights regarding a prevalent but relatively understudied phenomenon in adolescent social lives, namely, social status insecurity. The first study employed a quantitative, survey-based approach to examine the dimensionalities, antecedent factors, and developmental outcomes of social status insecurity. The second study used a qualitative, focus group methodology that probed the specific manifestations, incidence, emotional consequences, and coping strategies for various forms of social status insecurity in current adolescents. Findings from two studies complemented each other and together presented a more comprehensive picture of adolescents' insecure perceptions regarding multiple indications of peer status, which laid a solid foundation for a theoretical framework of social status insecurity.

The results we gained from study one, the quantitative survey study, offered a threefold insight of SSI. First, the dimensionality of SSI was examined. Adolescents' insecure feelings pertaining to different indications of social status, including popularity, social preference, and general social status, were confirmed, supporting the heterogeneity of social status insecurity. The demographic differences of various forms of social status insecurity (i.e., popularity insecurity, social preference insecurity, and insecurity about

general peer status) revealed that girls reported to experience higher levels of popularity insecurity, social preference insecurity, and general social status insecurity. In addition, the multiple forms of SSI were differentially experienced by adolescents depending on their attained levels of social status (i.e., popularity, social preference, and general peer status), such that adolescents with lower social status generally reported more corresponding SSI. Moreover, diverse coping strategies for SSI, represented as both positive strategies and passive responses, were disclosed using a mixed-method approach in study one. Second, the discord derived from insecure parent and peer attachment, and the negative experiences in peer interactions, have been identified as significant correlates of social status insecurity, supporting the theoretical conceptualization of them as antecedents of SSI. Third, extending previous literature, study one of this project uncovered a much broader spectrum of developmental outcomes (e.g., social behaviors, mental adjustments, physical and sleep health, interpersonal relationships, and academic performance) that were related to social status insecurity and highlight the negative impact that social status insecurity may have on adolescent well-being.

Study two, the qualitative focus group study, discovered how early adolescents experienced and reacted to specific types of social status insecurity. Findings from study two indicated that SSI was manifested in a wide range of apprehensions in their social lives. Social status insecurity may not only be evoked by the concerns of attained social status, but also exacerbated by worries pertinent to peer exclusion or victimization. In addition, the focus group discussion informed researchers substantial negative emotional aftereffects subsequent to various social status insecurities, ranging from slight emotional discomfort to internalizing symptoms. Furthermore, the adolescents in the focus group

mentioned a wide variety of coping reactions when they faced SSI in their daily lives. Some of those coping mechanisms are positive and constructive, including improving oneself and seeking social support. However, some coping responses, such as relational aggressive behavior or the tendency to bully, are destructive and will harm their own or their peers' developmental well-being. Through a holistic understanding of coping strategies that adolescents utilize to address social status insecurity, we can be more effective in helping adolescents to deal with this social status-related crisis in socially adaptive and appropriate, but not maladaptive ways.

In both studies, the detrimental consequences that social status insecurity inflicted on adolescent adjustment, especially on emotional health, were noteworthy. Study one highlighted that once adolescents experience social status insecurity, they were more likely to develop depressive symptoms, anxiety, and social withdrawal, regardless of whether the insecurity was related to popularity, social preference, or general attained standing. Social status insecurity was also related to more health complaints and poorer sleep quality. Likewise, study two discovered that social status insecurity in multiple forms were responsible for a series of negative emotions, ranging from slight angst to more traumatized internalizing symptoms. Furthermore, the focus group study pointed out that some adolescents might suffer from the adverse repercussions of social status insecurity with a higher frequency and a longer duration, implying that some groups of adolescents might be more vulnerable to social-status related apprehension. Empirical findings from study one corroborate this conclusion and further reveal that adolescents with lower peer status exacerbate the impact of social status insecurity on depressive

symptoms. In summary, both studies underline the negative mental outcomes consequent to social status insecurity.

Furthermore, both studies unveil the important roles of peer victimization and exclusion in the development of social status insecurity. In study one, negative peer experience represented as overt victimization, relational victimization, and social exclusion functioned as salient precursors of adolescent insecurity about popularity, social preference, and general peer status. Being ostracized, picked on, and bullied by peers, adolescents are not only under the risk of maladjustments and problematic behaviors, but also suffer great apprehension and stress particularly about their social status. In study two, a noticeable manifestation of multiple types of SSI was the fear of being victimized or excluded in peer interactions. This consistent pattern uncovered by both the quantitative and qualitative studies underscores that peer victimization may be a powerful trigger of adolescents' insecure feelings regarding social standing in peer relationships.

It is worth noting that if adolescents encounter social status insecurity, they rely on both adaptive and maladaptive tactics to address this issue. Findings from the questionnaire items, the open-ended question in the survey, and the focus group discussions indicate that adolescents rely on a broad range of coping tactics to deal with SSI. Some of those coping mechanisms are adaptive and constructive, such as seeking social support from friends and parents, emotional regulation, cognitive restructuring, and self-improvement, while others are maladaptive and pessimistic, including avoidance, denial, self-blame, and social withdrawal. The quantitative results concur with this latter finding and show that when adolescents were under the distress of various forms of SSI,

they were more likely to resort to negative coping methodologies instead of positive approaches. With the inclination to cope with social status insecurity through destructive strategies, adolescents are at a higher risk of emotional and behavioral difficulties in the long run.

Taken together, both the quantitative and qualitative results in this research provided insightful information for understanding the content and influence of social status insecurity in adolescent social and psychological development. Specifically, study one identifies the heterogeneities, antecedent factors, and developmental implications of social status insecurity in adolescence. Study two provides comprehensive perceptions about the specific manifestations, emotional impacts, scope, and coping strategies for various forms of social status insecurity. The findings from both studies validate each other. Together, they elucidate extensive knowledge on social status insecurity, contributing to the building of a theoretical framework for it. Moreover, with a better understanding of the nature and impact of social status insecurity, parents, educators, and psychologists could be more informed in helping adolescents address the difficulties that are elicited by their experience of social status insecurity.

References

Adler, P. A., & Adler, P. (1995). Dynamics of inclusion and exclusion in preadolescent cliques. *Social Psychology Quarterly*, 145-162.

Agan, M. L. F., Costin, A. S., Deutz, M. H. F., Edelsbrunner, P. A., Záliš, L., & Franken, A. (2015). Associations between risk behaviour and social status in European adolescents. *European Journal of Developmental Psychology, 12*(2), 189-203. doi:10.1080/17405629.2014.975790

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA US: Sage Publications, Inc.

Ainsworth, M. S. (1989). Attachments beyond infancy. *American Psychologist, 44*(4), 709-716. doi:10.1037/0003-066X.44.4.709

Allen, J. P., Porter, M. R., McFarland, F. C., Marsh, P., & McElhaney, K. B. (2005). The Two Faces of Adolescents' Success With Peers: Adolescent Popularity, Social Adaptation, and Deviant Behavior. *Child Development, 76*(3), 747-760. doi:10.1111/j.1467-8624.2005.00875.x

Almquist, Y. (2011). Social isolation in the classroom and adult health: A longitudinal study of a 1953 cohort. *Advances in Life Course Research, 16*(1), 1-12. doi:https://doi.org/10.1016/j.alcr.2010.11.001

Alonso-Arbiol, I., Balluerka, N., Gorostiaga, A., Aritzeta, A., Gallarin, M., & Haranburu, M. (2014). Attachment dimensions in adolescence: An adaptation of the Inventory of Parent and Peer Attachment (IPPA) into Basque. *Estudios de Psicología, 35*(2), 359-386. doi:10.1080/02109395.2014.922254

Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of personality and social psychology, 81*(1), 116.

Andrei, F., Mancini, G., Mazzoni, E., Russo, P. M., & Baldaro, B. (2015). Social status and its link with personality dimensions, trait emotional intelligence, and scholastic achievement in children and early adolescents. *Learning and Individual Differences, 42*, 97-105. doi:https://doi.org/10.1016/j.lindif.2015.07.014

Andrews, N. C. Z., Hanish, L. D., Updegraff, K. A., Martin, C. L., & Santos, C. E. (2016). Targeted victimization: Exploring linear and curvilinear associations between social network prestige and victimization. *Journal of Youth and Adolescence, 45*(9), 1772-1785. doi:10.1007/s10964-016-0450-1

Armsden, G. C., & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 16*(5), 427-454. doi:10.1007/bf02202939

Arsiwalla, D. D. (2017). The role of alcohol consumption and romantic attachment insecurity as risk factors for disrupted sleep and emotion regulation among underage and young adult drinkers. *North American Journal of Psychology, 19*(2), 499-524.

Bagwell, C. L., Newcomb, A. F., & Bukowski, W. M. (1998). Preadolescent friendship and peer rejection as predictors of adult adjustment. *Child Development, 69*(1), 140-153. doi:10.2307/1132076

Barthelemy, J. J., & Lounsbury, J. W. (2009). The relationship between aggression and

the Big Five personality factors in predicting academic success. *Journal of*

Human Behavior in the Social Environment, 19(2), 159-170.

doi:10.1080/10911350802687125

Basáñez, T., Warren, M. T., Crano, W. D., & Unger, J. B. (2014). Perceptions of

intragroup rejection and coping strategies: Malleable factors affecting Hispanic

adolescents' emotional and academic outcomes. *Journal of Youth and*

Adolescence, 43(8), 1266-1280. doi:10.1007/s10964-013-0062-y

Becker, B. E., & Luthar, S. S. (2007). Peer-Perceived Admiration and Social Preference:

Contextual Correlates of Positive Peer Regard Among Suburban and Urban

Adolescents. *Journal of Research on Adolescence, 17*(1), 117-144.

doi:10.1111/j.1532-7795.2007.00514.x

Berger, C., & Rodkin, P. C. (2009). Male and female victims of male bullies: Social

status differences by gender and informant source. *Sex Roles, 61*(1-2), 72-84.

doi:10.1007/s11199-009-9605-9

Bierman, K. L. (1987). The clinical significance and assessment of poor peer relations:

Peer neglect versus peer rejection. *Journal of Developmental and Behavioral*

Pediatrics, 8(4), 233-240. doi:10.1097/00004703-198708000-00009

Boivin, M., Hymel, S., & Burkowski, W. M. (1995). The roles of social withdrawal, peer

rejection, and victimization by peers in predicting loneliness and depressed mood

in childhood. *Development and psychopathology, 7*(4), 765-785.

doi:10.1017/S0954579400006830

Boulton, M. J., Trueman, M., Chau, C., Whitehand, C., & Amatya, K. (1999). Concurrent

and longitudinal links between friendship and peer victimization: Implications for

befriending interventions. *Journal of Adolescence, 22*(4), 461-466.

doi:10.1006/jado.1999.0240

Bowker, J. C., & Etkin, R. G. (2014). Mixed-grade rejection and its association with

overt aggression, relational aggression, anxious-withdrawal, and psychological

maladjustment. *The Journal of Genetic Psychology: Research and Theory on

Human Development, 175*(1), 35-50. doi:10.1080/00221325.2013.799060

Bowlby, J. (1989). The role of attachment in personality development and

psychopathology. In S. I. Greenspan & G. H. Pollock (Eds.), *The course of life,

Vol. 1: Infancy.* (pp. 229-270). Madison, CT: International Universities Press, Inc.

Bradshaw, M., Kent, B. V., Henderson, W. M., & Setar, A. C. (2017). Subjective social

status, life course SES, and BMI in young adulthood. *Health Psychology, 36*(7),

682-694. doi:10.1037/hea0000487

Branson, C. E., & Cornell, D. G. (2009). A Comparison of Self and Peer Reports in the

Assessment of Middle School Bullying. *Journal of Applied School Psychology,

25*(1), 5-27. doi:10.1080/15377900802484133

Brendgen, M., & Vitaro, F. (2008). Peer rejection and physical health problems in early

adolescence. *Journal of Developmental and Behavioral Pediatrics, 29*(3), 183-

190. doi:10.1097/DBP.0b013e318168be15

Bretherton, I. (1991). The roots and growing points of attachment theory. In C. M.

Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle.*

(pp. 9-32). New York, NY: Tavistock/Routledge.

Brook, J. S., Saar, N. S., Zhang, C., & Brook, D. W. (2009). Psychosocial antecedents

and adverse health consequences related to substance use. *American Journal of

Public Health, 99*(3), 563-568. doi:10.2105/AJPH.2007.127225

Brown, L. S., & Wright, J. (2003). The relationship between attachment strategies and

psychopathology in adolescence. *Psychology and Psychotherapy: Theory,

Research and Practice, 76*(4), 351-367. doi:10.1348/147608303770584728

Brumariu, L. E., & Kerns, K. A. (2010). Parent-child attachment and internalizing

symptoms in childhood and adolescence: A review of empirical findings and

future directions. *Development and Psychopathology, 22*(1), 177-203.

doi:10.1017/S0954579409990344

Bukowski, W. M., Laursen, B., & Rubin, K. H. (2018). *Handbook of peer interactions,

relationships, and groups, 2nd ed*. New York, NY: Guilford Press.

Burgess, K. B., Wojslawowicz, J. C., Rubin, K. H., Rose-Krasnor, L., & Booth-LaForce,

C. (2006). Social Information Processing and Coping Strategies of

Shy/Withdrawn and Aggressive Children: Does Friendship Matter? *Child

Development, 77*(2), 371-383. doi:10.1111/j.1467-8624.2006.00876.x

Cassidy, J., & Shaver, P. R. (2008). *Handbook of attachment: Theory, research, and

clinical applications., 2nd ed*. New York, NY, US: Guilford Press.

Chen, B.-B. (2011). Interpersonal strategy, attachment security and social status among

Chinese children in the initial period of secondary school. *School Psychology

International, 32*(6), 592-599. doi:10.1177/0143034311409854

Cillessen, A. H. N., & Marks, P. E. L. (2011). Conceptualizing and measuring popularity.

In A. H. N. Cillessen, D. Schwartz, L. Mayeux, A. H. N. Cillessen, D. Schwartz,

& L. Mayeux (Eds.), *Popularity in the peer system.* (pp. 25-56). New York, NY,
US: Guilford Press.

Cillessen, A. H. N., & Mayeux, L. (2004). From Censure to Reinforcement:
Developmental Changes in the Association Between Aggression and Social
Status. *Child Development, 75*(1), 147-163. doi:10.1111/j.1467-
8624.2004.00660.x

Clarke, A. T. (2006). Coping with Interpersonal Stress and Psychosocial Health Among
Children and Adolescents: A Meta-Analysis. *Journal of Youth and Adolescence,
35*(1), 11-24. doi:10.1007/s10964-005-9001-x

Closson, L. M., & Watanabe, L. (2018). Popularity in the peer group and victimization
within friendship cliques during early adolescence. *The Journal of Early
Adolescence, 38*(3), 327-351. doi:10.1177/0272431616670753

Collie, R. J., Martin, A. J., Papworth, B., & Ginns, P. (2016). Students' interpersonal
relationships, personal best (PB) goals, and academic engagement. *Learning and
Individual Differences, 45*, 65-76. doi:https://doi.org/10.1016/j.lindif.2015.12.002

Colonnesi, C., Draijer, E. M., Stams, G. J. J. M., Van der Bruggen, C. O., Bögels, S. M.,
& Noom, M. J. (2011). The relation between insecure attachment and child
anxiety: A meta-analytic review. *Journal of Clinical Child and Adolescent
Psychology, 40*(4), 630-645. doi:10.1080/15374416.2011.581623

Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., . . .
Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in
childhood and adolescence: A meta-analysis and narrative review. *Psychological
Bulletin, 143*(9), 939-991. doi:10.1037/bul0000110

Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory, 3rd ed*. Thousand Oaks, CA: Sage Publications, Inc.

Crick, N. R., & Bigbee, M. A. (1998). Relational and overt forms of peer victimization: a multiinformant approach. *Journal of consulting and clinical psychology, 66*(2), 337.

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 710-722.

Crick, N. R., & Grotpeter, J. K. (1996). Children's treatment by peers: Victims of relational and overt aggression. *Development and psychopathology, 8*(02), 367-380.

Cullerton-Sen, C., & Crick, N. R. (2005). Understanding the Effects of Physical and Relational Victimization: The Utility of Multiple Perspectives in Predicting Social-Emotional Adjustment. *School Psychology Review, 34*(2), 147-160.

Cummings, E. M., & Davies, P. T. (2010). *Marital conflict and children: An emotional security perspective*. New York, NY, US: Guilford Press.

Davies, P. T., Forman, E. M., Rasi, J. A., & Stevens, K. I. (2002). Assessing children's emotional security in the interparental relationship: The Security in the Interparental Subsystem Scales. *Child Development, 73*(2), 544-562. doi:10.1111/1467-8624.00423

Davies, P. T., Hentges, R. F., Coe, J. L., Martin, M. J., Sturge-Apple, M. L., & Cummings, E. M. (2016). The multiple faces of interparental conflict:

Implications for cascades of children's insecurity and externalizing problems. *Journal of Abnormal Psychology, 125*(5), 664-678. doi:10.1037/abn0000170

Davies, P. T., Martin, M. J., Coe, J. L., & Cummings, E. M. (2016). Transactional cascades of destructive interparental conflict, children's emotional insecurity, and psychological problems across childhood and adolescence. *Development and Psychopathology, 28*(3), 653-671. doi:10.1017/S0954579416000237

Dawes, M., & Xie, H. (2014). The role of popularity goal in early adolescents' behaviors and popularity status. *Developmental Psychology, 50*(2), 489-497. doi:10.1037/a0032999

Dawes, M., & Xie, H. (2017). The trajectory of popularity goal during the transition to middle school. *The Journal of Early Adolescence, 37*(6), 852-883. doi:10.1177/0272431615626301

DeFrino, D. T., Marko-Holguin, M., Cordel, S., Anker, L., Bansa, M., & Van Voorhees, B. (2016). 'Why should I tell my business?': An emerging theory of coping and disclosure in teens. *Research and Theory for Nursing Practice: An International Journal, 30*(2), 124-142. doi:10.1891/1541-6577.30.2.124

Dijkstra, J. K., Cillessen, A. H. N., & Borch, C. (2013). Popularity and adolescent friendship networks: Selection and influence dynamics. *Developmental Psychology, 49*(7), 1242-1252. doi:10.1037/a0030098
10.1037/a0030098.supp (Supplemental)

Downey, G., Lebolt, A., Rincón, C., & Freitas, A. L. (1998). Rejection sensitivity and children's interpersonal difficulties. *Child Development, 69*(4), 1074-1091. doi:10.2307/1132363

Dumas, T. M., Davis, J. P., & Ellis, W. E. (2019). Is it good to be bad? A longitudinal

    analysis of adolescent popularity motivations as a predictor of engagement in

    relational aggression and risk behaviors. *Youth & Society, 51*(5), 659-679.

    doi:10.1177/0044118X17700319

Dykas, M. J., Ziv, Y., & Cassidy, J. (2008). Attachment and peer relations in

    adolescence. *Attachment & Human Development, 10*(2), 123-141.

    doi:10.1080/14616730802113679

Eid, M. E., & Diener, E. E. (2006). *Handbook of multimethod measurement in*

    psychology: American Psychological Association.

El-Sheikh, M., Buckhalt, J. A., Keller, P. S., Cummings, E. M., & Acebo, C. (2007).

    Child emotional insecurity and academic achievement: The role of sleep

    disruptions. *Journal of Family Psychology, 21*(1), 29-38. doi:10.1037/0893-

    3200.21.1.29

Elmore, G. M., & Huebner, E. S. (2010). Adolescents' satisfaction with school

    experiences: Relationships with demographics, attachment relationships, and

    school engagement behavior. *Psychology in the Schools, 47*(6), 525-537.

    doi:10.1002/pits.20488

Escobar, M., Fernández-Baena, F. J., Miranda, J., Trianes, M. V., & Cowie, H. (2011).

    Low peer acceptance and emotional/behavioural maladjustment in schoolchildren:

    Effects of daily stress, coping and sex. *Anales de Psicología, 27*(2), 412-417.

Faris, R., & Felmlee, D. (2014). Casualties of social combat: School networks of peer

    victimization and their consequences. *American Sociological Review, 79*(2), 228-

    257. doi:10.1177/0003122414524573

Findley, D., & Ojanen, T. (2013). Adolescent resource control: Associations with

    physical and relational aggression, prosocial and withdrawn behaviors, and peer

    regard. *International Journal of Behavioral Development, 37*(6), 518-529.

    doi:10.1177/0165025413503420

Forrest-Bank, S. S., & Dupper, D. R. (2016). A qualitative study of coping with religious

    minority status in public schools. *Children and Youth Services Review, 61*, 261-

    270. doi:10.1016/j.childyouth.2015.12.025

Frison, E., & Eggermont, S. (2015). The impact of daily stress on adolescents' depressed

    mood: The role of social support seeking through Facebook. *Computers in

    Human Behavior, 44*, 315-325. doi:10.1016/j.chb.2014.11.070

Gangel, M. J., Keane, S. P., Calkins, S. D., Shanahan, L., & O'Brien, M. (2017). The

    association between relational aggression and perceived popularity in early

    adolescence: A test of competing hypotheses. *The Journal of Early Adolescence,

    37*(8), 1078-1092. doi:10.1177/0272431616642327

Gil, L. A., Dwivedi, A., & Johnson, L. W. (2017). Effect of popularity and peer pressure

    on attitudes toward luxury among teens. *Young Consumers, 18*(1), 84-93.

    doi:10.1108/YC-10-2016-00639

Gommans, R., Sandstrom, M. J., Stevens, G. W. J. M., ter Bogt, T. F. M., & Cillessen, A.

    H. N. (2017). Popularity, likeability, and peer conformity: Four field experiments.

    Journal of Experimental Social Psychology, 73, 279-289.

    doi:10.1016/j.jesp.2017.10.001

Gorrese, A. (2016). Peer attachment and youth internalizing problems: A meta-analysis.

    Child & Youth Care Forum, 45(2), 177-204. doi:10.1007/s10566-015-9333-y

Goulter, N., Moretti, M. M., del Casal, J. M., & Dietterle, P. (2019). Attachment

      insecurity accounts for the relationship between maternal and paternal

      maltreatment and adolescent health. *Child Abuse & Neglect, 96*, 104090.

      doi:https://doi.org/10.1016/j.chiabu.2019.104090

Guest, G., Namey, E., & McKenna, K. (2017). How many focus groups are enough?

      Building an evidence base for nonprobability sample sizes. *Field Methods, 29*(1),

      3-22. doi:10.1177/1525822X16639015

Hallgren, K. A. (2012). Computing inter-rater reliability for observational data: an

      overview and tutorial. *Tutorials in quantitative methods for psychology, 8*(1), 23.

Hawley, P. H. (2003). Prosocial and coercive configurations of resource control in early

      adolescence: A case for the well-adapted machiavellian. *Merrill-Palmer

      Quarterly, 49*(3), 279-309. doi:10.1353/mpq.2003.0013

Hofstra, B., Corten, R., & van Tubergen, F. (2016). Understanding the privacy behavior

      of adolescents on Facebook: The role of peers, popularity and trust. *Computers in

      Human Behavior, 60*, 611-621. doi:https://doi.org/10.1016/j.chb.2016.02.091

Hsieh, H.-F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content

      Analysis. *Qualitative Health Research, 15*(9), 1277-1288.

      doi:10.1177/1049732305276687

Illinois State Board of Education. (2019). 2019 Annual Report. Retrieved from

      https://www.isbe.net/Documents/2019-Annual-Report.pdf

Izquierdo-Sotorrío, E., Holgado-Tello, F. P., & Carrasco, M. Á. (2016). Incremental

      Validity and Informant Effect from a Multi-Method Perspective: Assessing

Relations between Parental Acceptance and Children's Behavioral Problems. *Frontiers in psychology, 7*, 664-664. doi:10.3389/fpsyg.2016.00664

Johnston, C., & Murray, C. (2003). Incremental validity in the psychological assessment of children and adolescents. *Psychol Assess, 15*(4), 496-507. doi:10.1037/1040-3590.15.4.496

Kawabata, Y., & Crick, N. R. (2011). The significance of cross-racial/ethnic friendships: Associations with peer victimization, peer support, sociometric status, and classroom diversity. *Developmental Psychology, 47*(6), 1763-1775. doi:10.1037/a0025399

Kawabata, Y., & Onishi, A. (2017). Moderating effects of relational interdependence on the association between peer victimization and depressive symptoms. *Child Psychiatry and Human Development, 48*(2), 214-224. doi:10.1007/s10578-016-0634-7

Kawabata, Y., Tseng, W. L., & Crick, N. R. (2014). Adaptive, maladaptive, mediational, and bidirectional processes of relational and physical aggression, relational and physical victimization, and peer liking. *Aggressive Behavior, 40*(3), 273-287. doi:10.1002/ab.21517

Keane, E., Kelly, C., Molcho, M., & Gabhainn, S. N. (2017). Physical activity, screen time and the risk of subjective health complaints in school-aged children. *Preventive Medicine: An International Journal Devoted to Practice and Theory, 96*, 21-27. doi:10.1016/j.ypmed.2016.12.011

Keresztes, N., Pikó, B., & Fülöp, M. (2015). Does competitiveness count? The role of

  competitive attitudes in health risk and preventive health behaviours. *European*

  Journal of Mental Health, 10(1), 44-61. doi:10.5708/EJMH.10.2015.1.3

Kiefer, S. M., Matthews, Y. T., Montesino, M., Arango, L., & Preece, K. K. (2013). The

  effects of contextual and personal factors on young adolescents' social goals.

  Journal of Experimental Education, 81(1), 44-67.

  doi:10.1080/00220973.2011.630046

King, L. A. (2017). *The science of psychology : an appreciative view* (4th Edition ed.).

  New York, NY: McGraw-Hill Education.

Kingery, J. N., Erdley, C. A., & Marshall, K. C. (2011). Peer acceptance and friendship

  as predictors of early adolescents' adjustment across the middle school transition.

  Merrill-Palmer Quarterly, 57(3), 215-243. doi:10.1353/mpq.2011.0012

Kovacs, M., & Staff, M. (2003). *Children's Depression Inventory (CDI): technical*

  manual update: Multi-Health Systems North Tonawanda, NY.

Krieg, A., & Dickie, J. R. (2013). Attachment and hikikomori: A psychosocial

  developmental model. *International Journal of Social Psychiatry, 59*(1), 61-72.

  doi:10.1177/0020764011423182

Krueger, R. A. (2000). Focus group. In A. E. Kazdin (Ed.), *Encyclopedia of Psychology,*

  Vol. 3. (pp. 382-383). Washington, DC; New York, NY: American Psychological

  Association

Oxford University Press.

Krueger, R. A. (2014). *Focus groups: A practical guide for applied research*: Sage

  publications.

Lafko, N., Murray-Close, D., & Shoulberg, E. K. (2015). Negative peer status and

    relational victimization in children and adolescents: The role of stress physiology.

    Journal of Clinical Child and Adolescent Psychology, 44(3), 405-416.

    doi:10.1080/15374416.2013.850701

LaFontana, K. M., & Cillessen, A. H. N. (1998). The nature of children's stereotypes of

    popularity. *Social Development, 7*(3), 301-320. doi:10.1111/1467-9507.00069

LaFontana, K. M., & Cillessen, A. H. N. (2002). Children's perceptions of popular and

    unpopular peers: A multimethod assessment. *Developmental Psychology, 38*(5),

    635-647. doi:10.1037/0012-1649.38.5.635

LaFontana, K. M., & Cillessen, A. H. N. (2010). Developmental changes in the priority

    of perceived status in childhood and adolescence. *Social Development, 19*(1),

    130-147. doi:10.1111/j.1467-9507.2008.00522.x

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for

    categorical data. *biometrics*, 159-174.

Lansford, J. E., Malone, P. S., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2010).

    Developmental cascades of peer rejection, social information processing biases,

    and aggression during middle childhood. *Development and psychopathology,
    22*(3), 593-602. doi:10.1017/s0954579410000301

Lease, A. M., & Axelrod, J. L. (2001). Position of the peer group's perceived

    organizational structure: Relation to social status and friendship. *The Journal of

    Early Adolescence, 21*(4), 377-404. doi:10.1177/0272431601021004001

Lease, A. M., Kennedy, C. A., & Axelrod, J. L. (2002). Children's social constructions of

    popularity. *Social Development, 11*(1), 87-109. doi:10.1111/1467-9507.00188

Lease, A. M., Musgrove, K. T., & Axelrod, J. L. (2002). Dimensions of social status in preadolescent peer groups: Likability, perceived popularity, and social dominance. *Social Development, 11*(4), 508-533. doi:10.1111/1467-9507.00213

Lee, A., & Hankin, B. L. (2009). Insecure attachment, dysfunctional attitudes, and low self-esteem predicting prospective symptoms of depression and anxiety during adolescence. *Journal of Clinical Child and Adolescent Psychology, 38*(2), 219-231. doi:10.1080/15374410802698396

Li, Y., Li, D., Li, X., Zhou, Y., Sun, W., Wang, Y., & Li, J. (2018). Cyber victimization and adolescent depression: The mediating role of psychological insecurity and the moderating role of perceived social support. *Children and Youth Services Review, 94*, 10-19. doi:https://doi.org/10.1016/j.childyouth.2018.09.027

Li, Y., Wang, M., Wang, C., & Shi, J. (2010). Individualism, collectivism, and Chinese adolescents' aggression: Intracultural variations. *Aggressive Behavior, 36*(3), 187-194. doi:10.1002/ab.20341

Li, Y., & Wright, M. F. (2014). Adolescents' social status goals: Relationships to social status insecurity, aggression, and prosocial behavior. *Journal of Youth and Adolescence, 43*(1), 146-160. doi:10.1007/s10964-013-9939-z

Liu, Y.-L. (2008). An examination of three models of the relationships between parental attachments and adolescents' social functioning and depressive symptoms. *Journal of Youth and Adolescence, 37*(8), 941-952. doi:10.1007/s10964-006-9147-1

Long, Y., & Li, Y. (2018). *Relational aggression, relational victimization, and social status insecurity: Testing moderation and mediation models*. Paper presented at

the the the Biennial Meeting of the Society for Research on Adolescence, Minneapolis, MN.

Long, Y., & Li, Y. (2019). The longitudinal association between social status insecurity and relational aggression: Moderation effects of social cognition about relational aggression. *Aggressive Behavior*. doi:10.1002/ab.21872

Long, Y., & Li, Y. (2020). The longitudinal association between social status insecurity and relational aggression: Moderation effects of social cognition about relational aggression. *Aggressive Behavior, 46*(1), 84-96. doi:10.1002/ab.21872

Long, Y., Zhou, H., & Li, Y. (2020). Relational Victimization and Internalizing Problems: Moderation of Popularity and Mediation of Popularity Status Insecurity. *Journal of Youth and Adolescence, 49*(3), 724-734. doi:10.1007/s10964-019-01177-x

Lu, T., Tu, K. M., El-Sheikh, M., & Vaughn, B. E. (2016). Preschool children's negative emotionality and peer acceptance: The moderating role of sleep. *Social Development, 25*(4), 704-721. doi:10.1111/sode.12175

Marin, T. J., & Miller, G. E. (2013). The interpersonally sensitive disposition and health: An integrative review. *Psychological Bulletin, 139*(5), 941-984. doi:10.1037/a0030800

Marsh, H. W. (1992). Self Description Questionnaire (SDQ) II: A theoretical and empirical basis for the measurement of multiple dimensions of adolescent self-concept: An interim test manual and a research monograph. *New South Wales, Australia: University of Western Sydney, Faculty of Education*.

Mayeux, L., & Cillessen, A. H. N. (2008). It's not just being popular, it's knowing it, too:
The role of self-perceptions of status in the associations between peer status and
aggression. *Social Development, 17*(4), 871-888. doi:10.1111/j.1467-
9507.2008.00474.x

Mayeux, L., Houser, J. J., & Dyches, K. D. (2011). Social acceptance and popularity:
Two distinct forms of peer status. In A. H. N. Cillessen, D. Schwartz, & L.
Mayeux (Eds.), *Popularity in the peer system.* (pp. 79-102). New York, NY:
Guilford Press.

McElhaney, K. B., Antonishak, J., & Allen, J. P. (2008). "They like me, they like me
not": popularity and adolescents' perceptions of acceptance predicting social
functioning over time. *Child Development, 79*(3), 720-731. doi:10.1111/j.1467-
8624.2008.01153.x

Mehra, D., Kyagaba, E., Östergren, P.-O., & Agardh, A. (2014). Association between
Self-Reported Academic Performance and Risky Sexual Behavior among
Ugandan University Students- A Cross Sectional Study. *Global Journal of Health
Science, 6*(4), 183-195. doi:10.5539/gjhs.v6n4p183

Mikulincer, M., & Shaver, P. R. (2011). An attachment perspective on interpersonal and
intergroup conflict. In J. P. Forgas, A. W. Kruglanski, & K. D. Williams (Eds.),
The psychology of social conflict and aggression. (Vol. 13, pp. 19-35). New
York, NY: Psychology Press.

Moffitt, T. E. (2007). A review of research on the taxonomy of life-course persistent
versus adolescence-limited antisocial behavior. In D. J. Flannery, A. T. Vazsonyi,

& I. D. Waldman (Eds.), *The Cambridge handbook of violent behavior and aggression.* (pp. 49-74). New York, NY: Cambridge University Press.

Nelis, S. M., & Rae, G. (2009). Brief report: Peer attachment in adolescents. *Journal of Adolescence, 32*(2), 443-447.

doi:https://doi.org/10.1016/j.adolescence.2008.03.006

Niu, L., Jin, S., Li, L., & French, D. C. (2016). Popularity and social preference in Chinese adolescents: Associations with social and behavioral adjustment. *Social Development, 25*(4), 828-845. doi:10.1111/sode.12172

Noom, M. J., Deković, M., & Meeus, W. H. (1999). Autonomy, attachment and psychosocial adjustment during adolescence: A double-edged sword? *Journal of Adolescence, 22*(6), 771-783.

Nunes, C., Ayala-Nunes, L., Pechorro, P., & La Greca, A. M. (2018). Short form of the Social Anxiety Scale for Adolescents among community and institutionalized Portuguese youths. *International Journal of Clinical and Health Psychology, 18*(3), 273-282. doi:10.1016/j.ijchp.2018.06.001

Onwuegbuzie, A. J., Dickinson, W. B., Leech, N. L., & Zoran, A. G. (2009). A qualitative framework for collecting and analyzing data in focus group research. *International journal of qualitative methods, 8*(3), 1-21.

Pakaslahti, L., Karjalainen, A., & Keltikangas-Järvinen, L. (2002). Relationships between adolescent prosocial problem-solving strategies, prosocial behaviour, and social acceptance. *International Journal of Behavioral Development, 26*(2), 137-144. doi:10.1080/01650250042000681

Park, A., Jensen-Campbell, L. A., & Miller, H. L. (2017). The effects of peer relational

victimization on social cognition: Rejection attribution bias or a more generalized

sensitivity to social pain? *Journal of Social and Personal Relationships, 34*(7),

984-1006. doi:10.1177/0265407516664418

Parkhurst, J. T., & Asher, S. R. (1992). Peer rejection in middle school: Subgroup

differences in behavior, loneliness, and interpersonal concerns. *Developmental

Psychology, 28*(2), 231-241. doi:10.1037/0012-1649.28.2.231

Parkhurst, J. T., & Hopmeyer, A. (1998). Sociometric Popularity and Peer-Perceived

Popularity:Two Distinct Dimensions of Peer Status. *The Journal of Early

Adolescence, 18*(2), 125-144. doi:10.1177/0272431698018002001

Pattiselanno, K., Dijkstra, J. K., Steglich, C., Vollebergh, W., & Veenstra, R. (2015).

Structure matters: The role of clique hierarchy in the relationship between

adolescent social status and aggression and prosociality. *Journal of Youth and

Adolescence, 44*(12), 2257-2274. doi:10.1007/s10964-015-0310-4

Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). *Making sense of factor analysis: The

use of factor analysis for instrument development in health care research*: sage.

Platt, B., Kadosh, K. C., & Lau, J. Y. F. (2013). The role of peer rejection in adolescent

depression. *Depression and Anxiety, 30*(9), 809-821. doi:10.1002/da.22120

Plenty, S., & Jonsson, J. O. (2017). Social exclusion among peers: The role of immigrant

status and classroom immigrant density. *Journal of Youth and Adolescence, 46*(6),

1275-1288. doi:10.1007/s10964-016-0564-5

Poulin, F., & Dishion, T. J. (2008). Methodological Issues in the Use of Peer Sociometric

    Nominations with Middle School Youth. *Social Development, 17*(4), 908-921.

    doi:10.1111/j.1467-9507.2008.00473.x

Prinstein, M. J., & Cillessen, A. H. N. (2003). Forms and functions of adolescent peer

    aggression associated with high levels of peer status. *Merrill-Palmer Quarterly,

    49*(3), 310-342. doi:10.1353/mpq.2003.0015

Putallaz, M., Grimes, C. L., Foster, K. J., Kupersmidt, J. B., Coie, J. D., & Dearing, K.

    (2007). Overt and relational aggression and victimization: Multiple perspectives

    within the school setting. *Journal of School Psychology, 45*(5), 523-547.

    doi:10.1016/j.jsp.2007.05.003

Ramsdal, G., Bergvik, S., & Wynn, R. (2015). Parent–child attachment, academic

    performance and the process of high-school dropout: A narrative review.

    Attachment & Human Development, 17(5), 522-545.

    doi:10.1080/14616734.2015.1072224

Rentzsch, K., Schröder-Abé, M., & Schütz, A. (2015). Envy mediates the relation

    between low academic self-esteem and hostile tendencies. *Journal of Research in

    Personality, 58*, 143-153. doi:10.1016/j.jrp.2015.08.001

Rodkin, P. C., & Berger, C. (2008). Who bullies whom? Social status asymmetries by

    victim gender. *International Journal of Behavioral Development, 32*(6), 473-485.

    doi:10.1177/0165025408093667

Rose, A. J., & Asher, S. R. (2000). Children's friendships. In C. Hendrick & S. S.

    Hendrick (Eds.), *Close relationships: A sourcebook.* (pp. 47-57). Thousand Oaks,

    CA: Sage Publications, Inc.

Rose, A. J., Glick, G. C., Smith, R. L., Schwartz-Mette, R. A., & Borowski, S. K. (2017).

Co-rumination exacerbates stress generation among adolescents with depressive

symptoms. *Journal of Abnormal Child Psychology, 45*(5), 985-995.

doi:10.1007/s10802-016-0205-1

Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship

processes: Potential trade-offs for the emotional and behavioral development of

girls and boys. *Psychological Bulletin, 132*(1), 98-131. doi:10.1037/0033-

2909.132.1.98

Rose, A. J., & Swenson, L. P. (2009). Do perceived popular adolescents who aggress

against others experience emotional adjustment problems themselves?

Developmental Psychology, 45(3), 868-872. doi:10.1037/a0015408

Rose, A. J., Swenson, L. P., & Waller, E. M. (2004). Overt and Relational Aggression

and Perceived Popularity: Developmental Differences in Concurrent and

Prospective Relations. *Developmental Psychology, 40*(3), 378-387.

doi:10.1037/0012-1649.40.3.378

Rosen, L. H., Beron, K. J., & Underwood, M. K. (2017). Social victimization trajectories

from middle childhood through late adolescence. *Social Development, 26*(2), 227-

247. doi:10.1111/sode.12185

Rubin, K. H., Bukowski, W. M., Parker, J. G., & Bowker, J. C. (2008). Peer interactions,

relationships, and groups. *Child and adolescent development: An advanced

course*, 141-180.

Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social Withdrawal in Childhood. *Annual Review of Psychology, 60*(1), 141-171. doi:10.1146/annurev.psych.60.110707.163642

Sánchez, B., Pinkston, K. D., Cooper, A. C., Luna, C., & Wyatt, S. T. (2018). One falls, we all fall: How boys of color develop close peer mentoring relationships. *Applied Developmental Science, 22*(1), 14-28. doi:10.1080/10888691.2016.1208092

Sandstrom, M. J., & Cillessen, A. H. N. (2003). Sociometric Status and Children's Peer Experiences: Use of the Daily Diary Method. *Merrill-Palmer Quarterly, 49*(4), 427-452. doi:10.1353/mpq.2003.0025

Sandstrom, M. J., & Herlan, R. D. (2007). Threatened egotism or confirmed inadequacy? How children's perceptions of social status influence aggressive behavior toward peers. *Journal of Social and Clinical Psychology, 26*(2), 240-267. doi:10.1521/jscp.2007.26.2.240

Sapolsky, R. M. (2000). Stress Hormones: Good and Bad. *Neurobiology of Disease, 7*(5), 540-542. doi:https://doi.org/10.1006/nbdi.2000.0350

Schwartz-Mette, R. A., & Rose, A. J. (2012). Co-rumination mediates contagion of internalizing symptoms within youths' friendships. *Developmental Psychology, 48*(5), 1355-1365. doi:10.1037/a0027484

Shea, M., Wang, C., Shi, W., Gonzalez, V., & Espelage, D. (2016). Parents and teachers' perspectives on school bullying among elementary school-aged Asian and Latino immigrant children. *Asian American Journal of Psychology, 7*(2), 83-96. doi:10.1037/aap0000047

Sheftall, A. H., Schoppe-Sullivan, S. J., & Bridge, J. A. (2014). Insecure attachment and

    suicidal behavior in adolescents. *Crisis: The Journal of Crisis Intervention and*

    Suicide Prevention, 35(6), 426-430. doi:10.1027/0227-5910/a000273

Singh, R. B., Mathur, S. R., & Saxena, S. (1977). Creativity as related to intelligence,

    achievement and security–insecurity. *Indian Psychological Review, 14*(2), 84-88.

Soldatos, C. R., Dikeos, D. G., & Paparrigopoulos, T. J. (2000). Athens Insomnia Scale:

    Validation of an instrument based on ICD-10 criteria. *Journal of Psychosomatic*

    Research, 48(6), 555-560. doi:10.1016/S0022-3999(00)00095-7

Spirito, A., Stark, L. J., & Williams, C. (1988). Development of a brief coping checklist

    for use with pediatric populations. *Journal of Pediatric Psychology, 13*(4), 555-

    574. doi:10.1093/jpepsy/13.4.555

Sroufe, L. A., Carlson, E., & Shulman, S. (1993). Individuals in relationships:

    Development from infancy through adolescence. In D. C. Funder, R. D. Parke, C.

    Tomlinson-Keasey, & K. Widaman (Eds.), *Studying lives through time:*

    Personality and development. (pp. 315-342). Washington, DC: American

    Psychological Association.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of qualitative*

    research, 17, 273-285.

Sussman, S., Pokhrel, P., Ashmore, R. D., & Brown, B. B. (2007). Adolescent peer group

    identification and characteristics: A review of the literature. *Addictive Behaviors,*

    32(8), 1602-1627. doi:10.1016/j.addbeh.2006.11.018

Sweeting, H., & Hunt, K. (2014). Adolescent socio-economic and school-based social

    status, health and well-being. *Social Science & Medicine, 121*, 39-47.

    doi:https://doi.org/10.1016/j.socscimed.2014.09.037

Tandon, S. D., Dariotis, J. K., Tucker, M. G., & Sonenstein, F. L. (2013). Coping, stress,

    and social support associations with internalizing and externalizing behavior

    among urban adolescents and young adults: Revelations from a cluster analysis.

    Journal of Adolescent Health, 52(5), 627-633.

    doi:10.1016/j.jadohealth.2012.10.001

Terreri, C. J., & Glenwick, D. S. (2013). The relationship of religious and general coping

    to psychological adjustment and distress in urban adolescents. *Journal of Religion*

    and Health, 52(4), 1188-1202. doi:10.1007/s10943-011-9555-8

Timeo, S., Riva, P., & Paladino, M. P. (2020). Being liked or not being liked: A study on

    social-media exclusion in a preadolescent population. *Journal of Adolescence, 80*,

    173-181. doi:https://doi.org/10.1016/j.adolescence.2020.02.010

Underwood, M. K. (2003). *Social aggression among girls*. New York, NY: Guilford

    Press.

van den Berg, Y. H. M., Lansu, T. A. M., & Cillessen, A. H. N. (2015). Measuring social

    status and social behavior with peer and teacher nomination methods. *Social*

    Development, 24(4), 815-832. doi:10.1111/sode.12120

Vangeepuram, N., Carmona, J., Arniella, G., Horowitz, C. R., & Burnet, D. (2015). Use

    of focus groups to inform a youth diabetes prevention model. *Journal of Nutrition*

    Education and Behavior, 47(6), 532-539. doi:10.1016/j.jneb.2015.08.006

Vannatta, K., Gartstein, M. A., Zeller, M., & Noll, R. B. (2009). Peer acceptance and

social behavior during childhood and adolescence: How important are

appearance, athleticism, and academic competence? *International Journal of*

Behavioral Development, 33(4), 303-311.

Verkuyten, M., & Brug, P. (2001). Self-esteem and ethnic and national identification

among adolescents in the Netherlands. *International Journal of Adolescence and*

Youth, 9(4), 321-343. doi:10.1080/02673843.2001.9747885

Webster, G. D., Gesselman, A. N., & Crosier, B. S. (2016). Avoidant adult attachment

negatively relates to classroom popularity: Social network analysis support for the

Parent–Partner–Peer Attachment Transfer model. *Personality and Individual*

Differences, 96, 248-254. doi:10.1016/j.paid.2016.03.007

Wilhsson, M., Svedberg, P., Högdin, S., & Nygren, J. M. (2017). Strategies of adolescent

girls and boys for coping with school-related stress. *The Journal of School*

Nursing, 33(5), 374-382. doi:10.1177/1059840516676875

Wilkinson, R. B., & Goh, D. Y. L. (2014). Structural, age, and sex differences for a short

form of the inventory of parent and peer attachment: the IPPA-45. *Journal of*

Relationships Research, 5.

Wilkinson, R. B., & Walford, W. A. (2001). Attachment and personality in the

psychological health of adolescents. *Personality and Individual Differences,*

31(4), 473-484. doi:10.1016/S0191-8869(00)00151-3

Williams, K. D. (2009). Chapter 6 Ostracism: A Temporal Need-Threat Model. In

Advances in Experimental Social Psychology (Vol. 41, pp. 275-314): Academic

Press.

Wolters, N., Knoors, H., Cillessen, A. H., & Verhoeven, L. (2014). Behavioral,

    personality, and communicative predictors of acceptance and popularity in early

    adolescence. *The Journal of Early Adolescence, 34*(5), 585-605.

Wright, Li, Y., & Shi, J. (2014). Chinese adolescents' social status goals: Associations

    with behaviors and attributions for relational aggression. *Youth & Society, 46*(4),

    566-588. doi:10.1177/0044118X12448800

Wu, S., Wang, R., Zhao, Y., Ma, X., Wu, M., Yan, X., & He, J. (2013). The relationship

    between self-rated health and objective health status: a population-based study.

    BMC Public Health, 13(1), 320. doi:10.1186/1471-2458-13-320

Yang, H.-y., Cai, T.-s., & He, Y. (2010). Parent attachment, peers attachment and high

    school students' behavior problems. *Chinese Journal of Clinical Psychology,

    18*(1), 107-108.

You, J.-I., & Bellmore, A. (2012). Relational peer victimization and psychosocial

    adjustment: The mediating role of best friendship qualities. *Personal

    Relationships, 19*(2), 340-353. doi:10.1111/j.1475-6811.2011.01365.x

Zhang, X., Pomerantz, E. M., Qin, L., Logis, H., Ryan, A. M., & Wang, M. (2018).

    Characteristics of likability, perceived popularity, and admiration in the early

    adolescent peer system in the United States and China. *Developmental

    Psychology, 54*(8), 1568-1581. doi:10.1037/dev0000544

10.1037/dev0000544.supp (Supplemental)

Zimmer-Gembeck, M. J., Trevaskis, S., Nesdale, D., & Downey, G. A. (2014). Relational

    victimization, loneliness and depressive symptoms: Indirect associations via self

and peer reports of rejection sensitivity. *Journal of Youth and Adolescence, 43*(4),

568-582. doi:10.1007/s10964-013-9993-6

Zimmer-Gembeck, M. J., & Webb, H. J. (2017). Body image and peer relationships:

Unique associations of adolescents' social status and competence with peer- and

self-reported appearance victimization. *Journal of Adolescence, 61*, 131-140.

doi:https://doi.org/10.1016/j.adolescence.2017.10.002

Appendix A. Questionnaires

Please answer the following information about yourself.

1. What grade are you in? ☐ 6th ☐ 7th ☐ 8th ☐ 9th

2. What is your gender? ☐ Female ☐ Male

3. What is your ethnicity?
☐ White ☐ Black or African American
☐ American Indian or Alaska Native ☐ Hispanic
☐ Asian ☐ Native Hawaiian or Other Pacific Islander
☐ Other _____

Section 1 My Social World Measure

Instructions: As you read about the following descriptions, please think about your presence in the social events and activities involving your classmates at schools (e.g., extracurricular activities, lunch time, sports, birthday parties). Please indicate to what extent you agree with each of the following statements by circling out the number you choose and select one option per item.					
	Never	**Almost Never**	**Some-times**	**Almost all the time**	**All the time**
1. I worry about my popularity.	1	2	3	4	5
2. I worry that my classmates don't like me.	1	2	3	4	5
3. I feel that my social standing among my classmates is threatened.	1	2	3	4	5
4. I feel I am unpopular among my classmates.	1	2	3	4	5
5. I care about whether I am liked by my classmates.	1	2	3	4	5
6. I care about my peer status among my classmates.	1	2	3	4	5
7. I care about the level of popularity of mine.	1	2	3	4	5
8. I feel my classmates do not like me.	1	2	3	4	5
9. I feel that my social standing among peers is not high.	1	2	3	4	5
10. I worry that I'm not in the popular peer group.	1	2	3	4	5
11. I worry that I'm not included in social events (e.g., lunch groups, extracurricular activities, sports).	1	2	3	4	5
12. I want to be popular among my peers.	1	2	3	4	5
13. I want to be included in popular peer groups.	1	2	3	4	5
14. I want to have influence over my peers.	1	2	3	4	5
15. I want to be well-known among my peers.	1	2	3	4	5
16. I want to be dominant among my peers.	1	2	3	4	5
17. I want to be socially central among my peers.	1	2	3	4	5
18. I want to be well liked by my peers.	1	2	3	4	5
19. I want to be accepted by my peers.	1	2	3	4	5
20. I want to be perceived as a good person.	1	2	3	4	5
21. I want to be accepting to my peers.	1	2	3	4	5
22. I don't want to be disliked.	1	2	3	4	5

Section 2 what would you do

When you face the feelings such as *the worries about your popularity, concerns about that your classmates may not like you, and/or cares about your status among classmates*, how often do you:

Please read each description and circle the best answer.	Did you do this?		How much did it help?		
	1	0	0	1	2
1. I just tried to forget it.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
2. I did something like watch TV or played a game to forget it.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
3. I stayed by myself	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
4. I kept quiet about the problem	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
5. I tried to see the good side of things.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
6. I blamed myself for causing the problem.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
7. I blamed someone else for causing the problem.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
8. I tried to fix the problem by thinking of answers.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
9. I tried to fix the problem by doing something or talking to someone.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
10. I yelled, screamed, or got mad.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
11. I tried to calm myself down.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
12. I wished the problem had never happened.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
13. I wished I could make things different.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
14. I tried to feel better by spending time with others like family, grownups, or friends.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot
15. I didn't do anything because the problem couldn't be fixed.	☐ Yes	☐ No	☐ Not at all	☐ A little	☐ A lot

16. * What else would you do to make yourself feel better if you have worries about your popularity, concerns about that your classmates may not like you, and/or cares about your status among classmates? (Please write down your answer)

_____

Section 3 Health

Instructions: The questions given below are about how often you experience some health issues. For each issue, please put an "X" in the box beneath the answer that best reflects how you have been feeling.

	1	2	3	4	5
How often have you experienced this health complaint?	rarely or never	about every month	about every week	more than once a week	about every day
1. Cold					
2. Headache					
3. Stomachache					
4. Backache					
5. Feeling dizzy					
6. Having a medical leave of absence					
7. In general, how would you rate your current health status (please circle one)?	1 Very bad	2 Bad	3 Fair	4 Good	5 very good

Now, think about your sleep and any sleep difficulty you might have experienced. Please check (by circling the appropriate number) the items below to indicate your estimate of any difficulty that occurred at least three times per week during the **last month**.

1. SLEEP INDUCTION *(time it takes you to fall asleep after turning-off the lights):*			
0 No problem	1 Slightly delayed	2 Delayed a lot	**3** Very delayed or did not sleep at all
2. AWAKENINGS DURING THE NIGHT:			
0 No problem	**1** Minor problem	**2** A lot of problem	**3** Serious problem or did not sleep at all
3. TOTAL SLEEP DURATION:			
0 Sufficient	**1** Slightly insufficient	**2** Insufficient a lot	**3** Very insufficient or did not sleep at all
4. OVERALL QUALITY OF SLEEP *(no matter how long you slept):*			
0 Satisfactory	1 Slightly unsatisfactory	**2** Unsatisfactory a lot	**3** Very unsatisfactory or did not sleep at all

Section 4 Self Perception

This is not a test. There are no right or wrong answers. Please answer each as honestly as you can.
Use these numbers to show: HOW MUCH YOU FEEL something is true for you:

> 1= Not at all
> 2= Hardly Ever
> 3= Sometimes
> 4=Most of the time
> 5=All the time

Now let's try these sentences first. How much does each describe how you feel?

> a. I like summer vacation….. 1 2 3 4 5
> b. I like to eat spinach………1 2 3 4 5

	Not at all	Hardly Ever	Some-times	Most of the time	All the time
1. I worry about what other kids think of me.	1	2	3	4	5
2. I'm afraid that others will not like me.	1	2	3	4	5
3. I worry about what others say about me.	1	2	3	4	5
4. I worry that other kids don't like me.	1	2	3	4	5
5. I feel shy around kids I don't know.	1	2	3	4	5
6. I get nervous when I talk to kids I don't know very well.	1	2	3	4	5
7. I get nervous when I meet new kids.	1	2	3	4	5
8. I feel nervous when I'm around certain kids.	1	2	3	4	5
9. I'm quiet when I'm with a group of kids.	1	2	3	4	5
10. I'm afraid to invite other kids to do things with me because they might say no.	1	2	3	4	5
11.I feel shy even with kids I know well.	1	2	3	4	5
12. It's hard for me to ask other kids to do things with me.	1	2	3	4	5

Section 5 Personal Experience

Instructions: Youths sometimes have different feelings and ideas. This form lists the feelings and ideas in groups. From each group of three sentences, pick one sentence that describes you BEST for the **past two weeks**. Put a mark like this ☒ next to your answer. Put the mark in the box next to the sentence that you pick.

CDI1
⓪ I am sad once in a while.
① I am sad many times.
② I am sad all the time.

CDI2
⓪ Nothing will ever work out for me.
① I am not sure if things will work out for me.
② Things will work out for me O.K.

CDI3
⓪ I do most things O.K.
① I do many things wrong.
② I do everything wrong.

CDI4
⓪ I hate myself.
① I do not like myself.
② I like myself.

CDI5
⓪ I feel like crying every day.
① I feel like crying many days.
② I feel like crying once in a while.

CDI6
⓪ Things bother me all the time.
① Things bother me many times.
② Things bother me once in a while.

CDI7
⓪ I look O.K.
① There are some bad things about my looks.
② I look ugly.

CDI8
⓪ I do not feel alone.
① I feel alone many times.
② I feel alone all the time.

CDI9
⓪ I have plenty of friends.
① I have some friends but I wish I had more.
② I do not have any friends.

CDI10
⓪ Nobody really loves me.
① I am not sure if anybody loves me.
② I am sure that somebody loves me.

Section 6. Academic Performance

Instructions: Please circle an answer that best reflects your academic performance of each question given below. Your answers will be kept confidential.

1. What is your cumulative grade point average _____?

1	2	3	4	5	6	7
less than 1.50	1.50-1.99	2.00-2.49	2.50-2.99	3.00-3.49	3.50-3.99	4.00

2. What grades do you most often received ___?

9	8	7	6	5	4	3	2	1
Mostly As	Mostly As and Bs	Mostly Bs	Mostly Bs and Cs	Mostly Cs	Mostly Cs and Ds	Mostly Ds	Mostly Ds and Es	Mostly Fs

3. How well are your studies going ___?

	5	4	3	2	1
My studies are:	excellent	very satisfactory	satisfactory	unsatisfactory	very unsatisfactory

Section 7 Interpersonal Relationships

Instructions: Please think about your relationship with other students at school and circle your agreement level on the questions given below.

Overall,	Strongly Disagree	Disagree	Disagree somewhat	Neither disagree nor agree	Agree Some-what	Agree	Strongly Agree
1. I get along well with other students at school.	1	2	3	4	5	6	7
2. I am liked by other students at school.	1	2	3	4	5	6	7
3. Other students are interested in me, what I do, and what I think.	1	2	3	4	5	6	7
4. I like other students at this school.	1	2	3	4	5	6	7
5. I am popular among my peers.	1	2	3	4	5	6	7
6. I am liked among peers.	1	2	3	4	5	6	7

Section 8 Self Report

Instruction: Here is a list of things that people do. Please tell us how often you act as described in the items. Please use the scale listed below and circle the number after each item.

How often do you do the following things?	Never	Almost Never	Sometimes	Almost all the time	All the time
1. help, cooperate or share with others.	1	2	3	4	5
2. say something nice to other peers.	1	2	3	4	5
3. cheer another peer up when they are unhappy.	1	2	3	4	5
4. start fights with others.	1	2	3	4	5
5. say mean things to other kids.	1	2	3	4	5
6. hit or push other kids.	1	2	3	4	5
7. keep a person out of group activities because you are mad at him/her.	1	2	3	4	5
8. ignore or stop talking to somebody when you are mad at him/her.	1	2	3	4	5
9. tell friends you will stop liking them unless they do what you say.	1	2	3	4	5
10. watch other children play without joining in.	1	2	3	4	5
11. would rather play alone than play with peers.	1	2	3	4	5
12. play by yourself rather than with other kids.	1	2	3	4	5
How often do you experience the following things?	**Never**	**Almost Never**	**Sometimes**	**Almost all the time**	**All the time**
1. be excluded from social activities (e.g., lunch groups, extracurricular activities, sports).	1	2	3	4	5
2. get rejected from joining in social activities (e.g., lunch groups, extracurricular activities, sports).	1	2	3	4	5
3. your classmates not treating you as a group member.	1	2	3	4	5
4. yell at you and call you mean names.	1	2	3	4	5
5. get hit by another kid.	1	2	3	4	5
6. get pushed or shoved by another kid.	1	2	3	4	5
7. get other kids leave you out on purpose when it is time to play or do an activity.	1	2	3	4	5
8. another kid who is mad at you try to get back at you by not letting you be in their group anymore.	1	2	3	4	5
9. a kid try to keep others from liking you by saying mean things about you.	1	2	3	4	5

Section 9 Relationship with Parent

Instructions: This questionnaire asks about your relationships with your parent. **The word parent in this section could mean your mother, father, and/or the person who is your primary caregiver.** Each of the following statements asks about your feelings about your parent. Answer the questions for the one you feel has most influenced you by circling the number after it.

	almost never or never true	seldom true	sometimes true	often true	almost always or always true
1. My parent respects my feelings.	1	2	3	4	5
2. I feel my parent is successful as a parent.	1	2	3	4	5
3. My parent accepts me as I am.	1	2	3	4	5
4. I like to get my parent's point of view on things I'm concerned about.	1	2	3	4	5
5. My parent senses when I'm upset about something.	1	2	3	4	5
6. I get upset a lot more than my parent knows about.	1	2	3	4	5
7. When we discuss things, my parent cares about my point of view.	1	2	3	4	5
8. My parent trusts my judgment.	1	2	3	4	5
9. I tell my parent about my problems and troubles.	1	2	3	4	5
10. I feel angry with my parent.	1	2	3	4	5
11. My parent encourages me to talk about my difficulties.	1	2	3	4	5
12. I don't get much attention from my parent.	1	2	3	4	5
13. My parent doesn't understand what I'm going through these days.	1	2	3	4	5
14. I can count on my parent when I need to get something off my chest.	1	2	3	4	5
15. Talking over my problems with my parent makes me feel ashamed or foolish.	1	2	3	4	5

Section 10 Relationship with Peers

Introduction: The next set of questions asks you about your relationship with your close friends. Please answer the following questions using the scale:

	almost never or never true	seldom true	sometimes true	often true	almost always or always true
1. My friends sense when I'm upset about something.	1	2	3	4	5
2. Talking over my problems with my parent makes me feel ashamed or foolish.	1	2	3	4	5
3. My friends encourage me to talk about my difficulties.	1	2	3	4	5
4. I feel the need to be in touch with my friends more often.	1	2	3	4	5
5. My friends don't understand what I'm going through these days.	1	2	3	4	5
6. My friends listen to what I have to say.	1	2	3	4	5
7. I feel my friends are good friends.	1	2	3	4	5
8. When I am angry about something, my friends try to be understanding.	1	2	3	4	5
9. My friends help me to understand myself better.	1	2	3	4	5
10. I trust my friends.	1	2	3	4	5
11. My friends respect my feelings.	1	2	3	4	5
12. I get upset a lot more than my friends know about.	1	2	3	4	5
13. It seems as if my friends are irritated with me for no reason.	1	2	3	4	5
14. I can tell my friends about my problems and troubles.	1	2	3	4	5
15. If my friends know something is bothering me, they ask me about it.	1	2	3	4	5

Section 11 Peer Nomination

Instructions: A grade roster will be given to you. Please nominate your peers who fit the following descriptions. Please find these peers on the grade roster and write down their ID numbers after each description. You can nominate as many people as you want for each description.

1. People you like most _____
2. People you like least _____
3. Peers who are popular _____
4. Peers who are unpopular _____
5. Peers who hit, push others _____
6. Peers who yell, call others mean names _____
7. Peers who when mad at a person, ignores them or stops talking to them
   _____
8. Peers who try to keep certain people from being in their group during an activity
   _____
9. Peers who do nice things for others _____
10. Peers who help others _____
11. Peers who get beat up a lot by other classmates _____
12. Peers who get yelled at _____
13. Peers who get left out of the group activities because one of their friends is mad at them
_____
14. Peers who get ignored by classmates when someone is mad at them

   _____

Thank You!