ATTACHMENT, BULLYING, AND ROMANTIC RELATIONSHIPS IN COLLEGE STUDENTS

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ABSTRACT

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Some studies have examined the relationships between early attachment and bullying, bullying and romantic relationships, and attachment and romantic relationships. However, there is a dearth of empirical evidence regarding how later adverse experiences during adolescence, such as in-person bullying and cyberbullying, combines with early attachment to predict later romantic attachment and romantic relationships. In other words, my dissertation examines how early attachment style during childhood and online and offline bullying experience during adolescence may together affect someone's later attachment styles and romantic relationships. There are some interesting findings. For instance, the more securely attached someone is to his or her mother in early childhood, and the less they were involved in bullying as an adolescent (regardless of online or offline), the more likely it is for them to be securely attached to their romantic partners later as a young adult. They also trust their romantic partners more and are more satisfied with their relationships. Childhood attachment and adolescent bullying involvement uniquely contributes to later romantic attachment as well as romantic relationship satisfaction. There are also some interaction effects on gender. Detailed differences between in-person bullying and cyberbullying as well as the interactions between predictors were examined.

This dissertation is dedicated to my parents, Yongqiang Fang, and Yuying Lin, for their unconditional support and love, and continuous caring and advice; and to my late grandpa, who showed me how to care for others and taught me to believe in myself.

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CHAPTER I. INTRODUCTION

Bullying has been a significant phenomenon in adolescents, and it has far-reaching consequences in different aspects of development of the individuals. Much research has examined the relationships between early attachment and bullying, bullying and romantic relationships, and attachment and romantic relationships. However, there exists a dearth of empirical evidence regarding how later adverse experiences during adolescence stage, such as traditional bullying and cyberbullying, may potentially undermine the early attachment and how the interaction of early attachment and adolescent bullying involvement may influence later attachment and romantic relationships. The following discussion begins with an introduction of traditional bullying and cyberbullying, similarities and differences of these two types of bullying, and the prevalence of each; followed with the description of early attachment, romantic relationships, and their relationships with bullying and with each other, respectively. I also examined the existent literature regarding relationships among attachment, bullying, and romantic relationships and described the purpose of the current study. The results and discussion are also provided.

Bullying

There are several definitions of bullying, such as "...a person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons" (Olweus, 1993). Bullying can also be defined as "the systematic abuse of power" (Smith & Sharp, 1994) or "repetitive negative actions intended to harm or cause significant distress, inflicted by a more powerful person against a less powerful one" (Jolliffe & Farrington, 2006). Similarly, Kowalski and Limber (2007) defined bullying as "repeated aggressive behavior in which there is an imbalance of power between the parties" (p. 22). Regardless of the

definition, most researchers agree that three conditions must be met to be considered bullying: 1) a power differential between the bully and the victim, 2) repeated harm over time, and 3) intention to harm (Craig, Pepler, & Blais, 2007; Law, Shapka, Domene, & Gagné, 2012; Olweus, 1991; Pellegrini & Bartini, 2001; Vaillancourt, Hymel, & McDougall, 2003).

In a study with students of grades 6 to 10, Vaillancourt et al. (2003) found that the children identified as bullies tend to be viewed by peers as more powerful and popular, although they were also generally disliked. Olweus (1994) suggested that in order to use the term "bullying," there should be an "imbalance in strength" (an asymmetric power relationship; p.1173), in which the student who is harassed has difficulty in defending himself/herself and feels helpless against the harasser. According to Craig et al. (2007), "power differential" means that the bully tends to have more power than the victim does. Power can be derived from many areas, such as physical strength and size, social status in a group (e.g., popular versus rejected student), advantage in number (e.g., a group instead of a solitary child), and from knowing someone's vulnerability (e.g., obesity, learning problems) and use that knowledge to cause stress.

Bullying can take different forms, including physical (e.g., threats of harm, hitting, pushing, and kicking), verbal (e.g., continuous name-calling or teasing someone in a hurtful way), relational (e.g., repeated social exclusion or spreading rumors), or cyber (e.g., using cellphone or instant messaging to harass others, Wang, Iannotti, & Nansel, 2009; Wang, Nansel, & Iannotti, 2011). Although each subtype is considered acts of aggression, it is only considered a subtype of bullying when the three conditions, as described above, are met. Generally, physical bullying and verbal bullying are considered to be a direct form of bullying, and relational bullying is an indirect form. Studies found that boys are more often engaged in direct bullying,

whereas girls are more likely to be involved in indirect bullying (Björkqvist, 1994; Owens, Shute, & Slee, 2000). To better differentiate, in the following, bullying through a traditional means will be referred to as traditional bullying or in-person bullying-offending, and being victimized through a traditional means will be referred to as traditional victimization or in-person bullying-victimized.

Cyberbullying

Researchers agree that there is a subtype of bullying whereby one uses information and communication technology. However, as pointed out by Law, Shapka, Hymel, Olson, and Waterhouse (2012), there is no consensus on what to call it, with terms such as online aggression, cyberbullying, Internet harassment, and electronic aggression being used in the literature (Dooley, Pyżalski, & Cross, 2009; Kowalski, Limber, & Agatston, 2008; Smith, 2009). Following the suggestion of Olweus (2012), in the following, I will refer to bullying performed through electronic means such as cell phones or the Internet as cyberbullying/cyberbullying-offending, and will refer to victimization through the online means as cyber victimization or cyberbullying-victimized.

Belsey (2014), an expert in this field, indicates that "Cyberbullying involves the use of information and communication technologies to support deliberate, repeated, and hostile behaviour by an individual or group that is intended to harm others" (para. 1). There are also many forms of cyberbullying that involves anonymity. Herring (2003) suggests that anonymity in many online communication methods reduces inhibition and social responsibility, which fosters aggressive behaviors. More specifically, Patchin and Hinduja (2006) as well as Williams and Guerra (2007) suggest that cyberbullying includes bullying through e-mail, instant

messaging (IM), text and video messages sent through cellular phones, web pages and web blogs, chat rooms or discussion groups.

In general, there are many negative consequences of bullying from a variety of aspects, including physical health (e.g., Knack, Jensen-Campbell, & Baum, 2011), cognitive abilities (e.g., memory, Vaillancourt et al., 2011), academic performance (e.g., Kowalski & Limber, 2013), and psychological health (e.g., depression, Vaillancourt et al., 2011).

Similarities of Traditional and Cyberbullying. Some researchers found significant overlaps between traditional bullying and cyberbullying. Li (2007) found that in a sample of 7th grade children, almost 30% of the traditional bullies are also cyberbullies and about one in three traditional victims had also been cyberbullied. Those who bully others at schools also tend to bully others online. Li concluded that traditional bullying and cyberbullying have a strong tie between them and should not be examined as separate issues. Similarly, Olweus (2012) found that traditional bullying and cyberbullying have a significant degree of overlap: of the US students who had been exposed to cyberbullying, 88% of them had been bullied in at least one traditional way. For cyberbullying others, the overlap rate was also 88%. In other words, among those who have bullied others online, 88% of them had also bullied others in at least one traditional way. The discrepancy on the overlap rates between traditional bullying and cyberbullying between these two studies may be partially due to sampling differences as well as measurement and methodological differences. However, both studies supported the claim that there may be a significant overlap between traditional bullying and cyberbullying regardless of whether they are bullies or victims.

Another similarity may be the psychological consequences of bullying. A study (Price & Dalgleish, 2010) of cyberbully victims found that the victims felt sad, annoyed, embarrassed, and

afraid, which was similar to the emotions experienced by the victims of traditional bullying in earlier studies (e.g., Rigby & Slee, 1993). Olweus (2012) also found that for the victims of both traditional bullying and cyberbullying, the additional effect of cyberbullying was negligible.

Differences of Traditional and Cyberbullying. There are a few studies that tapped into the differences between traditional bullying and cyberbullying and the relationship between them. One of the differences between traditional bullying and cyberbullying is that the power differential may not be necessary in cyberbullying as in traditional bullying (Law, Shapka, & Hymel et al., 2012). For instance, through factor analyses, Law, Shapka, and Hymel et al. (2012) found that adolescents interpreted items related to bullying and victimization as distinct constructs in traditional bullying, however, they did not distinguish bullying and victimization in cyberbullying. The authors interpreted that it may be because the adolescents found it easier to retaliate online vs. offline, as the power differential is less prominent in online aggression. Thus, they themselves tend to be victims and bullies at the same time. Law, Shapka, and Hymel et al. (2012) also suggested that the nature of power differential or the means to determine the power may be different. For example, physical size and social status may not be as important online vs. offline due to the invisibility. Instead, those who are more technologically savvy may hold power online when compared to traditional bullying.

There may also be differences in other characteristics of traditional bullying. One of the distinguishing characteristics for traditional bullying is that it must be repetitive behaviors. Law, Shapka, and Hymel et al. (2012) argued that this might not translate well to cyberbullying. First, people reported being bullied online less frequently than offline (Gradinger, Strohmeier, & Spiel, 2009). Second, the content posted on the Internet tend to be there for a long time, which allows the victims and bullies to reread and revisit the incidents and relive the experience. Finally, it is

also more convenient online due to the fact that there is not a time limit to it. Online perpetrators are also more likely to be anonymous when compared to traditional perpetrators (Law, Shapka, & Hymel et al., 2012).

Moreover, some researchers found that in comparison to the traditional bullying, adolescents engaged in online bullying do not identify themselves by the role they play in an aggressive situation on the Internet (i.e., bully, victim, witness) but instead, according to the method of aggression they used (i.e., sending rude messages, posting embarrassing photos; Mishna, Saini, & Solomon, 2009).

Last but not least, in contrast to Olweus' (2012) findings, Campbell, Spears, Slee, Butler, and Kift (2012) found that among students of grades 6-12, although victims of traditional bullying reported that they felt that the bullying they received were harsher and crueler than those who were bullied electronically, the correlates of their mental health outcomes were not consistent with what they said. In fact, the cyber victims reported significantly more social difficulties and higher levels of anxiety and depression when compared to the victims of traditional bullying.

Prevalence

In general, it appears that there is an overlap between of traditional bullying and cyberbullying, although traditional bullying tends to have a higher rate than cyberbullying. The convenient access to the Internet and cell phone nowadays may also lead to the increase of cyberbullying. Adolescents have more and more access to the Internet through electronics at home or at their cell phones. Research shows that the majority (93%) of the North American youth report going on the Internet and 89% can access the Internet at home (Pew Internet and American Life Project, 2010). Law, Shapka, Domene et al. (2012) found that among students

from grades 5 to 12, the majority of the students (81%) had access to the Internet at home and 60% had their own cell phone.

The prevalence rates for bullying vary substantially across samples, countries, and studies. A study found that the percentages of traditionally bullying was 31% in Canada among 12 to 15 years old and 34% in China among 7th graders (Li, 2008). A review shows that the prevalence of cyberbullying in youth varies from 7% to 35.7% across studies (Calvete, Orue, Estévez, Villardón, & Padilla, 2010). For example, the percentages of being cyber bullies ranged from 7% in China among 7th grade students to 15% in Canada among 12 to 15 years old (Li, 2008), and in a study conducted with Turkish students, cyberbully behaviors were displayed by 35.7% of students between 6th to 10th grade (Aricak et al., 2008). Among the 13 studies reviewed by Calvete et al. (2010), seven studies reported gender differences. Among the seven studies, three of them reported no gender differences and four other studies found that boys were more likely than girls to be cyberbully victims.

Research findings showed that cyber victimization occurs generally less than traditional victimization, and that these two types of victimization had some overlaps. For example, according to the National Center for Educational Statistics (2013) report (reported data from 2011), 27.8% of students with ages 12 to 18 reported being bullied during the school year and among them only 9% had been cyberbullied. In sum, the prevalence rate of all types of bullying is approximately three times as the cyberbullying and there is a certain degree of overlap in the roles between traditional bullying and cyberbullying. The gender differences in cyberbullying appeared to be mixed and inconclusive and some authors suggest that age is curvilinearly related to the victimization, which peaks at around seventh and eighth grades.

Family Factors and Bullying Involvement

Parental or social support may be an important protective factor for teens who are involved in bullying. Hirschi (1969) suggested in his Social Bond Theory, later known as the Social Control Theory, that a person is less likely to choose crime if they had strong bond or connection with the society, and vice versa. Similarly, Osgood, Anderson, and Shaffer (2005) argued that a combination of lack of structure, socializing with peers, and the absence of adult supervision encourages delinquency and problematic behaviors, which highlights the importance of family support on reducing adolescent problematic behaviors. They called this "routine activity theory," which says, "the less structured an activity, the more likely a person is to encounter opportunities for problem behavior in the simple sense that he or she is not occupied doing something else" (p.51). Related to this, Cassidy, Brown, and Jackson (2012) found that parents were not very familiar with online social networking (e.g., Facebook) and were not overly concerned with cyberbullying or the extent of cyberbullying among their children, which may result in the decrease or absence of adult supervision on their children's online usage and potential involvement in cyberbullying. Consistent with this theory, Fanti, Demetriou, and Hawa (2012) found that adolescents living in a single-parent household reported more incidents of online victimization, indicating that family structure may also be important in preventing online victimization.

Many studies also found other family-related factors to be associated with a decrease in traditional victimization, such as fathers' involvement in their teenage children's bullying (Flouri & Buchanan, 2002), supportive parenting style (Baldry & Farrington, 2005), parental mediation techniques (i.e., rules on the Websites that the adolescents are allowed to visit; Mesch, 2009), and parental surveillance (Helweg-Larsen, Schütt, & Larsen, 2012). For example, Baldry and

Farrington (2005) examined the relationships between parenting styles, coping strategies, and traditional bullying and victimization among high school boys of 14 to 19 years old. They found that having highly supportive parents is associated with lower risk of peer bullying and victimization, and particularly has a significant buffering effect for the boys who deal with problems in an emotional way. In other words, for boys who deal with problems in an emotional way, having highly supportive parents helped reduce their risk of peer victimization more substantially than for boys who deal with problems in a less emotional way. Studies also found that family related factors are associated with a decrease in online bullying and victimization, such as family support (Fanti et al., 2012) and quality family time (Twyman, Saylor, Taylor, & Comeaux, 2010). Consistently, some studies also found that poorer caregiver-child relationships or bonding was associated with increased online perpetration (Ybarra & Mitchell, 2004; Ybarra & Mitchell, 2007).

Attachment

Attachment is a psychological construct that examines parent-child bond and the importance to later development (Ainsworth, Blehar, Waters, & Wall, 1978; Ainsworth, 1979; Bowlby, 1958; Bowlby, 1980; Greenberg, Cicchetti, & Cummings, 1993). Specifically, according to the theory on attachment by Ainsworth and colleagues (Main & Solomon, 1990), there are three major attachment styles. The first, the secure infant seeks comfort from primary caregiver, turns to him/her for support and reassurance, and uses the caregiver as a secure base from which to explore. Insecure infants are classified as either ambivalent or resistant, and avoidant. Neither the ambivalent/resistant nor the avoidant infant use the caregiver as a secure base, and the infant with ambivalent/resistant behaviors does not appear to be able to be comforted by the caregiver. Secure attachment is viewed as a result of sensitive, affectionate, and

appropriate parenting. Ambivalent attachment is associated with inconsistent parenting, whereas avoidant attachment is associated with primary caregivers being unresponsive and detached. Gender differences in attachment styles appeared to be mixed (Hazan & Shaver, 1994) and some studies (e.g., Lieberman, Doyle, & Markiewicz, 1999) found that the child-gender effects in parental attachment styles differ based on the child's age. Specifically, younger girls (the ages of 9 to 11 years) did not report differences of availability for their mothers and fathers, whereas older girls (the ages of 12-14 years) indicated higher availability of their mothers than their fathers. Some studies found that there are no significant differences in the rate of secure attachment with mothers and fathers during childhood (e.g., Main & Weston, 1981) and that both fathers and mothers can rear infants competently and sensitively (Grossmann, Grossmann, Fremmer-Bombik, Kindler, & Scheuerer-Englisch, 2002). Specifically, Main and Weston (1981) found that for infants, the attachment category distributions of mothers and fathers were comparable by using the Ainsworth classifications: of 46 infants seen with mother at 12 months, 67.4% were classified as secure, 28.3% as avoidant, and 4.3% as ambivalent. For these same infants with fathers at 18 months, 58.7% were classified as secure, 34.8% as avoidant, and 6.5% as ambivalent. In contrast, some studies found that mothers engaged in more interactions with their infants than fathers and fathers spent much less time on basic child-care tasks, such as feeding and diaper changing (Lucassen et al., 2011).

Ethologists John Bowlby (1980, 1988) and Inge Bretherton (1985, 1988) have proposed an explanation for the stability and enduring nature of the parent-child attachment. They believe that as the infants interact with their parents, they develop internal working models, which are cognitive representation of self and others and are used to interpret events and form expectations for human relationships. In other words, internal working model refers to the prototypes of

relationships developed from experiences and harbored by the individual. These prototypes of relationships further influence later perceptions, expectations, attitudes, and future relationships (Bowlby, 1973, as cited in Troy & Sroufe, 1987). The ethologists argue that infants develop a working model of the self largely based on whether they elicit attention and comfort when they need it. Thus, an infant whose caregiver responds promptly and appropriately to his or her needs for attention may think that "I am lovable" (positive working model of self), whereas an infant whose caregiver ignores or misinterprets his or her needs may conclude that "I'm unworthy" (negative working model of self). These two models combine to influence the quality of the child's primary attachments and his or her expectations of future relationships.

There is also empirical evidence that attachment is related to social, emotional, behavioral, and academic outcomes in childhood and adolescence (Boldt, Kochanska, Yoon, & Koenig Nordling, 2014; Jacobsen & Hofmann, 1997; Kochanska & Kim, 2013; Mikulincer, Shaver, & Berant, 2013; Muris, Meesters, & van den Berg, 2003). Secure attachment is associated with high level of social competence, peer acceptance, and popularity. In contrast, insecure attachment is associated with hostility, anger, aggression, lack of assertiveness, withdrawal, and low self-esteem, which may lead to peer rejection. It was found that insecure attachment is also associated with higher risk of internalizing and externalizing problems (Goldberg, 1997; Kokkinos, 2007). For example, children with an avoidant attachment style are more likely to exhibit aggressive antisocial behavior (Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989).

Attachment and Bullying

Insecure attachment styles appear to be associated with various roles in bullying involvement depending on the studies and samples, such as victims (10 to 12 years old,

Kokkinos, 2013; 4 to 5 years old, Troy & Sroufe, 1987), bullies (4 to 6 years old, Monks, Smith, & Swettenham, 2005), and bully-victim (i.e., being both a bully and a victim; in young adult offenders, Ireland & Power, 2004). For example, an earlier study found that among children of 4 to 5 years of age, those who had avoidant attachment styles were more likely to be involved as victims in bullying (Troy & Sroufe, 1987). Another study found among 4 to 6 years old that those who were peer-nominated as bullies tended to display more avoidant attachment style (Monks et al., 2005). Furthermore, with a group of young and adult offenders, a study found that the bully/victim group tended to report higher scores on avoidant attachment style, whereas pure bullies and those not-involved in bullying reported lower avoidant scores than other groups (Ireland & Power, 2004). Thus, distinct age groups and different methodologies may produce different findings. Nonetheless, these studies do suggest a potential link between insecure attachment styles and bullying involvement.

Romantic Relationships

Intimacy is an important concern particularly during adolescence because it is not until adolescence that truly intimate relationships, characterized by openness, honesty, self-disclosure, and trust, emerge. Children's friendships are based on games and shared activities, whereas adolescents' close friendships are more likely to be based on strong emotional bonds that form between people who care about and understand each other (Kobak & Madsen, 2011). Another reason for the importance of intimacy during adolescence is due to the changing nature of the social world. The importance of peers in general during early adolescence is replaced by the increasing importance of other-sex peers during middle and late adolescence (Furman, Brown, & Feiring, 1999). There is also a significant link between the development of intimacy during adolescence and biological, cognitive, and social changes of the period (Savin-Williams &

Berndt, 1990. In general, as adolescents develop, dating changes from a focus in infatuation and status to intimacy and emotional bonding (Steinberg, 2013.

The meaning of dating changes partly due to the changes of the average marriage age throughout generations. The average age for first marriage by the mid-1950s was 20 among women and 22 among men whereas the data in recent years showed that the average marriage age was 27 for women and 29 for men. Thus, adolescent dating may not have a lot to do with courtship or marriage as it had in the past (Steinberg, 2013. Dating is a frequent phenomenon in adolescents, and by age 18, practically almost all adolescents have had dated at least once, and three-fourths have had been involved in at least one steady relationship (Neemann, Hubbard, & Masten, 1995. Although early intense dating is associated with adverse mental health outcomes, a moderate degree of dating after age 15 is related to better mental health outcomes compared to no dating at all (Steinberg, 2013).

Bullying and Relationships/Romantic Relationships

There are many consequences of bullying, one of which may be influences on intimate relationships, including friendships and romantic relationships. Due to the prevalence of bullying experiences during adolescence, it would be reasonable to expect that negative peer attitudes and behaviors may affect individuals' later social development. The bullying experiences may also affect individuals' internal working model, resulting in negative expectations in social relationships, which may reflect an "insecure" internal working model.

Research indicates that bullying is a strong predictor for nearly all antisocial outcomes (Bender & Lösel, 2011. Antisocial boys and girls tend to have relationship difficulties. For instance, some studies have shown that antisocial boys have a series of difficulties in their later adjustment to the community, including their romantic relationships (Capaldi & Crosby, 1997;

Dishion, Eddy, Haas, Li, & Spracklen, 1997). As for antisocial girls, a study found that teenage girls who were deemed to be at high risk due to their involvement with child welfare agencies indicated that they were more likely to be engaged in dyadic dating earlier and were more likely to have romantic partners than their peers. In addition, they were also more likely to have arguments and less likely to have open communication with their boyfriends (Pawlby, Mills, & Quinton, 1997).

Studies also found some distinct characteristics in friendships or romantic relationships among bullies. Consistently, research shows that bullies, compared to the nonbully group, started dating earlier and engaged in more types of dating activities (Connolly, Pepler, Craig, & Taradash, 2000). They also spent more time outside of school with opposite-sex friends or their boyfriends or girlfriends (Connolly et al., 2000; Fanti et al., 2012). Male bullies were more likely to have a current girlfriend when compared to nonbully adolescents (40% vs. 15%) and were less likely to report never having had a girlfriend (22% vs. 44%). In contrast, the distribution of dating status between girl bullies and the nonbully group was not significant. The authors explained that boys may be more likely than girls to initiate dating as a way to establish their status in the peer group. Connolly et al. (2000) also found that bullies' views of their best friends and partners were less affectionate and less equitable. They were also more likely to report being a perpetrator of physical and social aggression with their partners as well as being victims of both types of aggression. Adolescents who bullied were also at a higher risk for other forms of relationship aggression, such as sexually harassing their same- and opposite-sex peers and were physically aggressive with their dating partners (Pepler et al., 2006).

Some studies have also examined victims' friendship and romantic relationship characteristics. A study found that the "love-shy" men, those who had difficulties in heterosexual

relationships, reported that they had experienced being bullied at school earlier (Gilmartin, 1987). Another study focused on adults with a stammer and found that most of them had experienced being bullied, and a substantial proportion of them reported long-term consequences, such as problems with confidence and social relationships (Hugh-Jones & Smith, 1999). Consistently, victims, especially stable victims (i.e., those who were victims in both primary and secondary school), scored lower on self-esteem, higher on emotional loneliness, and reported more difficulties in maintaining friendships than non-victims (Schäfer et al., 2004).

Retrospective victimization levels were associated with higher levels of shyness, lower friendship satisfaction and lower levels of trust in friendships (Jantzer, Hoover, & Narloch, 2006). These findings are in conflict with the results by Olweus (1993), as he found that there was no significant difference between victims and non-victims in shyness. However, Olweus used a smaller sample of males only (n = 17). Jantzer et al. (2006) did not find a significant inverse relationship between victimization and romantic relationship satisfaction, which may be partially due to the fact that less than half (total sample size = 119) of the sample reported being involved in romantic relationships. Most of the research has been focusing on traditional bullying, and not much research has been conducted regarding the association between cyberbullying and relationships/romantic relationships. One study found that cyberbullying tends to emerge from relationship problems, such as break-ups, envy, intolerance, and ganging up (Hoff & Mitchell, 2009). In sum, adolescent bullying involvement, regardless of whether being a bully or a victim, is associated with various relationship problems and difficulties later in life.

Attachment and Romantic Relationships

Romantic Attachment. Attachment style has been found to be related to later relationships, such as friendships and romantic relationships. One of the theories explains that

the association between early attachment and later relationships occurs because of changes in internal working model, which indicates that the initial attachment relationship shapes the model for later relationships in life (Bowlby, 1969; Bowlby, 1973; Hazan & Shaver, 1994). According to the theory, individuals who had a healthy and secure attachment relationship during infancy will have a healthy working model of relationships during adolescence, whereas those who were anxiously attached as infants will have a less positive model to apply to future relationships (McElhaney, Allen, Stephenson, & Hare, 2009). Furman, Simon, Shaffer, and Bouchey (2002) examined the consistency in applying working models to friendships, family relationships, and romantic relationships through interview and self-reports in a group of high school seniors from 16 to 19 years. In general, they found that the working models for individuals' relationships with parents are similar to their working models for their relationships with friends, and their working models for friendships are similar to their working models of relationships with romantic partners.

Interestingly, the working models of relationships with parents and with romantic partners were not significantly correlated, which the authors suggest may be due to the different behavioral systems that are active in different relationships. For instance, Furman et al. (2002) indicated that in middle adolescence, attachment processes are not expected to have developed in most romantic relationships, but may be present in close friendships and relationships with parents, resulting in a significant association between the latter two. They further suggest that the link between romantic relationships and relationships with parents may be more salient during late adolescence or adulthood, as the care-giving and attachment components in romantic relationship become more essential as romantic relationships develop.

Trust and Satisfaction. Some studies have demonstrated a link between attachment and romantic relationship satisfaction and other romantic relationship characteristics, such as trust. One of the earliest studies, Hazan and Shaver (1987), characterized anxious-avoidant adults as having difficulty with intimacy and trust and anxious-ambivalent adults as having heightened needs for emotional closeness with overt concern about rejection. A study conducted on early adolescents found that early adolescents' negative perceptions of parental conflict was positively associated with insecure attachment with parents, which was in turn positively associated with negative marital expectations and romantic experiences (Steinberg, Davila, & Fincham, 2006). Note that because the participants were early adolescent girls, whose average age was only 13.24 years, their marital expectations may not necessarily be a good predictor of future marital relationships. Another study found that distant father-child relationships during adolescence were linked with the child's later anxious love (Seiffge-Krenke, Overbeek, & Vermulst, 2010). Additionally, Simpson (1990) conducted a longitudinal study among college dating couples and found that secure attachment style was associated with greater relationship independence, trust, commitment, and satisfaction when compared to the anxious or avoidant attachment styles. Anxious and avoidant styles were also associated with less positive emotions and more negative emotions than secure attachment style.

Consistently, another study found that insecure college students (anxious-ambivalent or avoidant) endorsed significantly more relationship-specific irrational beliefs (e.g., partners cannot change) when compared to secure individuals (Stackert & Bursik, 2003). Egeci and Gencoz (2011) assessed adult attachment styles through two subscales: avoidance and anxiety subscales. Based on the scores of these two subscales, secure and insecure attachments are grouped. Compared to insecure individuals, secure ones reported greater romantic relationship

satisfaction and dyadic cohesion. A more recent study on Thai participants revealed that men scored higher on attachment anxiety and avoidance than women. Consistent with prior research, those with avoidant attachment style tend to have more relationship dissatisfaction (Wongpakaran, Wongpakaran, & Wedding, 2012).

Dating Violence. There is evidence to suggest that early relationship with parents has influence on someone's future intimate violence. There is a strong link between witnessing and/or experiencing family violence and intergenerational transmission of intimate violence (Avakame, 1998; Kitzmann, Gaylord, Holt, & Kenny, 2003; Kwong, Bartholomew, Henderson, & Trinke, 2003; Stith et al., 2000). Attachment theory also suggests that men and women with a maltreatment background to be equally at risk for relationship violence because they are drawn toward partners and situations in which a victim-victimizer relationship model could be applied and the victim-victimizer behaviors are available to them because they have learned both sides of the relationship (Wekerle & Wolfe, 1999).

Rejection Sensitivity. Some researchers suggest that individuals who had an insecure attachment starting from infancy tend to be more sensitive to being rejected by others in later romantic encounters, which is called rejection sensitivity (Collins & Feeney, 2004; Downey, Bonica, & Rincon, 1999). Specifically, Collins and Feeney conducted two studies among young couples between 19 and 20 years old and examined whether working models of attachment shape perception of social support in romantic relationships. One member of each couple, called support recipient, was asked to provide a speech and their romantic partner was asked to copy either a standard high-support or low-support messages and give it to the support recipient. It was found that insecure participants (anxious and avoidant) who received low-support messages from their romantic partners perceived the messages to be more negative than those who were

secure. They also rated a prior behavioral interaction with their partners to be less supportive. During the second study, the partners were allowed to write their own supportive note to their partner who was preparing for a speech. Insecure participants, especially fearful ones, perceived their partners' messages to be less supportive. Furthermore, individuals who have high scores on rejection sensitivity may develop symptoms of depression and anxiety, which in turn lead to further increase in rejection sensitivity (Marston, Hare, & Allen, 2010).

Researchers conducted an experiment on early adolescents and examined whether the adolescents who had high rejection expectations were more likely to respond to rejection with higher distress compared to those who were low in rejection expectations (Downey, Lebolt, Rincón, & Freitas, 1998). Specifically, during one of the studies, the adolescent was asked to choose a classmate to participate in an interview together. Then the researchers told the adolescent that the classmate he/she chose refused to come. The results showed that only the adolescents who had high rejection expectations, not the ones with low rejection expectations or the ones in the control group, experienced an increase in distress after the refusal from a friend. In another study, based on self-reports, the researchers found that angry expectations of rejection (i.e., as children awaiting the accepting or rejecting social feedback, probed for their thoughts and affect before actual acceptance or rejection happened) and an angry reaction of rejection (i.e., reaction to rejection that involved angry feelings, thoughts, and behaviors) predicted an increase in aggression, antisocial behavior, and the chance of being victimized a year later. Teacher reports also suggested that both of the two aforementioned components of rejection sensitivity predicted an increase in aggression toward peers, sensitivity about interpersonal slights, and a decline in social competence. Initial angry expectations and angry reaction to ambiguous rejection predicted official records of conflicts with peers and adults in the following

year, and angry reaction predicted problems with opposite-sex peers, speculating that this may pose a problem for future romantic relationships.

Downey and Feldman (1996) replicated the above findings in an undergraduate sample. They conducted several studies regarding the implications of rejection sensitivity for intimate relationships among college students. One of the studies found that those who were high on anxious expectations of rejection (i.e., due to past experiences of being rejected, the individuals had anticipatory anxiety in expressing their needs to significant others because they anticipated rejection) readily perceive ambiguous behavior of others (i.e., experimental manipulation that their experiment partner had refused to continue with the study) to be intentional rejection. A follow-up study examined the participants' attribution of their romantic partners' insensitive behavior. They found that those who are high on anxious expectations of rejection readily perceive insensitive behavior of their romantic partners (e.g., "If your boyfriend or girlfriend was being cool and distant, you would feel he or she was being intentionally hurtful to you") to be intentional rejection. In the last study, they found that individuals with high rejection sensitivity, as well as their romantic partners, experienced more dissatisfaction in their relationships.

Last but not least, another article examined a group of male college students to discover in what ways rejection sensitivity may affect romantic relationships through male violence (Downey, Feldman, & Ayduk, 2000). They found that for the men who reported relatively high investment in romantic relationships, their anxious expectations of rejection predicted dating violence. For the men who reported relatively low investment in romantic relationships, anxious expectations of rejection predicted reduced involvement in close relationships with friends and romantic partners. They also reported increased distress in social situations. The authors also pointed out an alternative explanation for the latter finding, which is that the men with high

rejection sensitivity invested less in close relationships probably because they have had fewer friends or romantic partners.

Attachment, Bullying, and Romantic Relationships

Previous sections have discussed the relationships between the variables of early attachment, bullying, and later romantic relationships. One of the key concepts that links these together is internal working model. Internal working model appears to link these variables together and help them connect and inform each other over time. Some researchers followed a group of children for 20 years starting in the 1980s to examine the stability of the internal working model among a group of individuals who failed to thrive (FTT) as children (Iwaniec & Sneddon, 2001). The FTT children were children who had failed to grow according to a normative development due to psychosocial problems in their environment rather than due to medical causes. They were classified as secure, avoidant, or anxious-ambivalent using the Strange Situation Test (Ainsworth et al., 1978). After 20 years, the researchers measured their attachment styles again using an adult attachment measure by Hazan and Shaver (1987). Hazan and Shaver (1994) identified insecure adults thorough these characteristics: a lack of self-disclosure; unjustifiable jealousy in relationships; feeling of loneliness even during a relationship; unwilling to make a commitment in relationships; problems in building relationships in new settings; and a tendency to see partners as being inattentive. They found that there is both stability and change regarding attachment styles in early childhood and in adulthood. Precisely, they found that only one individual out of 31 changed from a secure style as a child to an insecure (e.g., avoidant) style as an adult, two changed from an anxious/ambivalent style to adult avoidant style, whereas nine participants changed from insecure attachment styles as a child to secure as an adult. The rest remained unchanged in their

styles (n = 19). The authors suggested that traumatic events or difficulties in life may have motivated someone's change from secure to insecure style, and positive transitions or environmental improvement may have helped move someone's insecure attachment style as a child to secure as an adult. Although it is difficult to know how different measurement tools in different ages might have affected the results, the findings implied that that although internal working model and attachment style are relatively stable, they may also change based on later experiences in life. Thus, in this study, I would like to examine how later experiences as an adolescence in his or her peer relationship and bullying involvement would affect their later attachment styles and romantic relationships. In other words, I would like to examine whether the bullying involvement later in life would change the internal working model they formed earlier in life.

Few studies have examined the relationships among early attachment, bullying, and later romantic relationships. Some existent research studies have focused on attachment, bullying, and romantic relationships, but instead of early attachment, they only assessed adult attachment. For instance, a study examined relationships between attachment styles and infliction and receipt of emotional abuse among female college students in romantic relationships (O'Hearn & Davis, 1997). They conducted an attachment interview that assessed how people think, feel, and act in social relationships. Four attachment styles were identified: secure, fearful, preoccupied, and dismissive. Secure and fearful attachment styles are contrasted based on the degree of attachment security, whereas preoccupied and dismissive styles are separated based on the level of importance that relationships have in the individual's life. They found that women high in secure attachment were less likely to inflict or receive emotional abuse, whereas those high in preoccupied attachment were more likely to inflict and receive abuse during their romantic

encounters. Ledley et al. (2006) examined the relationship between childhood teasing and later interpersonal functioning among college students. It was found that the memory of childhood teasing was associated with fewer close friends and an anxious attachment style in the context of romantic relationship. It should be noted that this study assessed adult attachment style instead of childhood attachment style.

Current Study

This study aims to examine how early attachment style and bullying experience during childhood may affect someone's later attachment style and romantic relationships. Will bullying experiences change or strengthen the internal working model originally established by early attachment, which further affects later attachment styles, and romantic relationships? Or will the original internal working model remain intact despite bullying involvement? As indicated by Iwaniec & Sneddon (2001), internal working model may be changed due to interventions or later life experiences. Thus, because bullying involvement is a typical and prevalent traumatic experience an adolescence experiences, this is used to examine whether the internal working model will be changed or will remain stable. In addition, if it changes, how it would be changed. It is important to assess early attachment as it sets the foundation for later relationships. It should be noted that previous research studies did not examine all of these variables and their relationships in college students, and they primarily focused on traditional bullying instead of cyberbullying. Additionally, they rarely examined the different roles that the individuals involved in bullying, such as bullies and victims, respectively.

Research Questions and Hypotheses. In order to fill this gap in the literature, this study raises several research questions. Some hypotheses were established to predict the answers to these questions, which are based on the previously reviewed literature.

A. Attachment to Mothers and Fathers

Question: Is the attachment to mothers and fathers significantly different? And are there gender differences?

Hypothesis: Because the literature findings appear to be mixed, this study will explore whether there is a significant difference between participants' childhood attachment to mothers and fathers and the attachment styles between males and females. If there are no differences in attachment styles of mothers and fathers, then the means across both parents will be used to reflect each of the attachment styles. If there are differences, then later analyses will be conducted separately for mothers and fathers' attachment styles.

B. Childhood Attachment and Adolescent Bullying

Question: Does childhood attachment predict adolescent bullying and does the prediction differ by gender?

Hypothesis: Reflecting on the findings of the literature, it is predicted that secure attachment style with their parents will predict less bullying involvement later as an adolescent in both genders. However, insecure attachment style will predict more involvement in bullying in both genders. We will explore the gender differences.

C. Childhood Attachment and Romantic Relationships

Question: Does childhood attachment predict romantic relationship variables and does the prediction differ by gender?

Hypothesis: Consistent with the literature, it is predicted that childhood attachment styles with each parent predict romantic relationship quality/outcomes. That is, secure attachment will predict better outcome (i.e., higher scores on trust and satisfaction, and lower scores on

dating violence and rejection sensitivity) and vice versa for insecure attachment. We will explore the gender differences.

D. Adolescent Bullying and Romantic Relationships

Question: Does adolescent bullying predict romantic relationship variables and does the prediction differ by gender?

Hypothesis: Based on the literature findings, it is predicted that more involvement in bullying as an adolescent will predict romantic relationship quality/outcome, which means that more involvement in bullying will predict lower trust and lower satisfaction level in their romantic relationships, and higher scores on rejection sensitivity and dating violence. We will explore the gender differences.

E. Childhood Attachment and Adult Attachment

Question: Is childhood attachment style correlated with adult attachment style?

Hypothesis: According to the literature, it is predicted that there are significant inter-correlations between childhood attachment and adult attachment styles.

F. Childhood Attachment, Adolescent Bullying, Adult Attachment and Romantic Relationships.

Question: How will childhood attachment and adolescent bullying together predict adult attachment and romantic relationship, separately?

Hypothesis: It is expected that bullying involvement may combine with childhood attachment together to predict adult attachment and romantic relationship. Specifically, high secure attachment combined with low involvement in bullying will be associated with the best adult attachment and romantic relationship outcomes and high insecure childhood

attachment score combined with high bullying involvement will predict the worst adult attachment and romantic relationship outcomes.

CHAPTER II. METHOD

Participants

I recruited participants through SONA research participant pool (i.e., where students can register and participate in research studies in the university for extra course credits or other incentives) at a medium-sized Midwestern university, where the participants in this participant pool are primarily first- and second-year college students. The original sample was 464 participants. Seventeen of them were deleted due to substantial missing data (i.e., only filled out informed consent (n=15) or answered less than 10 items (n=2)). Another 14 were deleted from the data set because they did not meet the criteria of having had at least some dating experiences. Additionally, eighteen were deleted from the analyses as a result of failing the validation tests. Specifically, there are three questions that are repeated in the questionnaire and the participants' answers to these repeated questions were compared. If their answers were substantially different (e.g., if their response to the same item changed from "never" to "fairly often"), their data were considered to be invalid and thus, were not further considered in later analyses. As a result, the analyses included data of 415 participants.

Descriptive statistics for the sample were conducted and the results are summarized in Table 1. Among the 415 participants, there are 109 male students and 301 female students (5 participants chose "other" category). The mean age for male students is 19.72 (SD = 1.94, ranging from 18 to 31). The mean age for female students is 19.87 (SD = 2.89, ranging from 18 to 49). There is no significant age difference by gender. The majority of the participants are European-American (79.3%) and African-American (11.6%). Most of the participants are freshmen (34%) and sophomores (30%). The majority are heterosexual (90.8%), followed by bisexual (4.8%), homosexual (2.4%), and others (1.9%). As for the parental education, more

mothers have a college degree (38.1%), followed by those who have a high school diploma (22.2%) and some college education (20.7%). The average education for mothers is between "some college" and "college degree" (M = 3.61, SD = 1.32). Similarly, more fathers have a high school diploma (32.3%), followed by those with a college degree (31.6%) and some college education (20.5%). The average education for fathers is also between "some college" and "college degree" (M = 3.30, SD = 1.34). Additionally, the majority of the participants are single (98.1%), with few being married (1.2%) or divorced/separated/widowed (0.7%). As shown on Table 1, the majority of the participants' family's average annual household incomes are over $30,000, with only 13.5% of participants reporting annual household incomes lower than that.

Procedure

All survey questions were uploaded on an online survey management system and participants received one extra course credit as incentive for their participation. The survey included demographic information, followed by questionnaires assessing these areas in sequence: childhood attachment, traditional bullying involvement, cyberbullying involvement, adult attachment, and romantic relationships. The participation was voluntary and the participants read the informed consent before participating in the study, which indicated that they could withdraw from the study at any time without penalty.

Measures

Demographic Information. Demographic information such as age, gender, ethnicity, education, socioeconomic status, family income, and religious preference was assessed, as well as who was their primary caregiver during childhood (see Appendix A). Additionally, dating background and experiences was inquired, such as whether they have had dating experience, what type of dating relationships they are currently or recently involved, and how long they had

been together. The few dating-related questions are adapted from the Conflict in Adolescent Dating Relationship Inventory (CADRI; Wolfe et al., 2001; please see Appendix B). Internal consistency estimates are indicated in Table 3.

Attachment to Mother and Father. Childhood attachment with parents was assessed with a retrospective questionnaire that was developed by Hazan and Shaver (1986; in Collins and Read, 1990), which contains three descriptions (see Appendix C) that represent three attachment styles consistent with Ainsworth et al. (1978): secure, anxious/ambivalent, and avoidant. Specifically, to assess perception of childhood attachment to parents, three descriptors were created to assess caregiving behaviors that were found to correspond to the above three attachment styles, respectively: One described a warm/responsive parent (corresponds to secure attachment style), a second described a cold/rejecting parent (corresponds to avoidant attachment style), and a third described an ambivalent/inconsistent parent (corresponds to anxious/ambivalent attachment style). Each descriptor contained three sentences. In order to increase scale reliability and reduce the potential problem that participants may agree to one sentence but do not agree to another in the same descriptor, these three descriptors were further broken down into individual sentences, which resulted in nine items, with three items representing one attachment style. These items appeared twice on the questionnaire packet, first regarding the respondent's relationship with his/her mother/mother figure, and then with his/her father/father figure. The Likert scales ranged from -3 (*not at all like my mother/mother figure or father/father figure*) to +3 (*very much like my mother/mother figure or father/father figure*). The participants were asked to rate each sentence based on the response scale on how accurate the description is regarding their relationships with each of their parents, respectively. In this study, the average of all nine items were taken to represent the attachment to mother or attachment to

father, respectively. The internal consistency estimates for attachment to mother (coefficient alpha .89) and attachment to father (coefficient alpha .92) are listed in Table 2.

Traditional Bullying Involvement. There are two types of measures for bullying experiences: traditional bullying and cyberbullying. Traditional bullying was measured through an adapted version of Adolescent Peer Relations Instrument (Parada, 2000; see Appendix D). It has 36 items (18 perpetrator items and 18 victim items) and six subscales assessing the frequency of physical, verbal, and social bullying as both the victim and perpetrator over the last five years using a Likert scale that ranges from *0 = never* to *5 = very often*. Satisfactory internal consistency estimates were reported in a previous study (total bullying scale alpha = .93, total victim score = .95, and subscale scores from .83 to .92; Parada, 2000). A later study also demonstrated that all the six subscales had adequate discriminant validity (Marsh et al., 2011). In the current study, satisfactory internal consistency estimates are also reported (total In-Person Bullying-Offending scale alpha = .93, total In-Person Bullying-Victimized scale alpha = .96). As for In-Person Bullying-Offending measure subscales, the alpha for Verbal Bully subscale is .86, for Social Bully is .88, and for Physical Bully is .90. As for In-Person Bullying-Victimized measure subscales, the alpha for Verbal Victim subscale is .93, for Social Victim is .92, and for Physical Victim is .91.

Cyberbullying Involvement. Cyberbullying experiences were assessed through an adapted version of Cyberbullying and Online Aggression Survey (Patchin & Hinduja, 2006; see Appendix E). Twenty-two items were selected from 38 items and they contain two subscales: victimization (8 items) and perpetration (5 items). Previously, Cronbach's alphas for victimization scale was found to be .74, and the offending scale to be .76 (Patchin & Hinduja, 2006). The Cronbach alphas are lower than the ones for traditional bullying measures, partly may

be because the items in cyberbullying measures assess different aspects of online use. It is possible that the participants did not use all listed online tools to bully other or be bullied, thus producing a lower Cronbach alpha. To be consistent with the traditional bullying measure above, this scale was modified to assess the recall of cyberbullying involvement for the last five years. Due to the length of recall, in order to assess more accurately, the response scale was also modified to 6-point Likert scale (*0= never* to *5 = very often*). Slight modification was made to reflect the current popular form of social media, such as adding "Facebook" and "or other social media" as an example of social media tools. One sample item, "In the past 5 years, has anyone posted anything about you online that you didn't want others to see?" In the current study, satisfactory internal consistency estimates are reported (total Cyberbullying-Offending scale alpha = .82, total Cyberbullying -Victimized scale alpha = .90).

Adult Romantic Attachment. Adult romantic attachment was measured through Hazan and Shaver's Adult Attachment Types measures (ATT; 1987; see Appendix F) and the Experience in Close Relationships-Revised Questionnaire (ECR-R; Fraley, Waller, & Brennan, 2000; see Appendix G). One of the purposes of the former measure was to have a direct comparison with childhood attachment measure described above as they were both created based on Ainsworth et al.'s attachment styles (1978). Similar to the childhood attachment measure mentioned above, the three descriptions were further broken down into individual sentences, which resulted in nine items. It asks participants to rate each one based on how representative they are regarding their romantic relationship experiences. In the current study, the internal consistency estimate is .80. The ECR-R measures adult attachment and connection in the environment of close relationships, which contains two dimensions: attachment-related anxiety and attachment-related avoidance. Each item is rated on a 7-point response scale, with *-3* =

strongly disagree and *+3 = strongly agree*. Fraley et al. (2000) found that all subscales had good internal consistency estimates (> .90). In the current study, satisfactory internal consistency estimate is reported (.96). As for the subscales, the internal consistency estimates for Anxiety and Avoidance subscales are both .95. In this study, the average of the ATT and ECR-R scores was used as the romantic attachment combined measure.

Romantic Relationships. Several relationship variables were measured to assess the quality and characteristic of the participants' current or the most recent romantic relationship, including trust and satisfaction of the relationship, dating violence, and rejection sensitivity.

Trust in romantic partner. The Dyadic Trust Scale (DTS; Larzelere & Huston, 1980; see Appendix H) is designed to measure interpersonal trust in close relationships. It has eight items and it is assessed through a 7-point response scale from *-3 = strongly disagree* to *+3 = strongly agree*. One sample item is, "I feel that I can trust my partner completely." Convergent validity was found as the DTS was significantly correlated with love and intimacy of self-disclosure (Larzelere & Huston, 1980). Discriminant validity was demonstrated through low correlation with social desirability and general trust. Larzelere and Huston (1980) also found high internal consistency with this measure (alpha = .93). In the current study, satisfactory internal consistency estimate is also reported (.91).

Relationship satisfaction. The Relationship Assessment Scale (Hendrick, 1988; see Appendix I) intends to measure satisfaction with their romantic relationship and it contains seven items. One sample item is, "To what extent has your relationship met your original expectations?" Each item has its own unique Likert scale. For instance, the Likert scale for the above item is from *-2 = Hardly at all* to *+2 = Completely*. This scale has been validated in college students and romantic couples and it has good internal consistency (alpha = .86),

concurrent validity, and predictive validity (i.e., was able to distinguish couples who subsequently stayed together or broke up; Hendrick, 1988). A later study also found high internal consistency with this scale (alpha = .92; Jantzer et al., 2006). Two of the items (Items 5 and 7) had significantly lower inter-item correlations, thus, they were dropped from further analyses during the current study. In the current study, the internal consistency for this scale is .91.

Physical assault and psychological aggression. Dating violence in the past year was assessed through a short form of the Revised Conflict Tactics Scales (CTS2; Straus & Douglas, 2004; see Appendix J). The Conflict Tactics Scales (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) is the most widely used scale for measuring intimate partner violence. This original scale is comprised of 78 items, with 39 items asking for the respondent's own behavior and the other 39 asking for the behavior of respondent's partner. Due to the length of the original scale, the short form was created by Straus and Douglas (2004), which contains 20 items, with 10 items assessing the respondent and the other 10 assessing the respondent's partner. It has an 8-point response scale, which assesses frequency of the violence that occurs. To reflect the natural response sequence, in this study, the response choices of "This has never happened" and "Not in the past year, but it did happen before" were moved to the beginning of the response scale to represent "0" and "1." Additionally, to assist with memory recall, some frequency hints were added to the response choices (i.e., number of times). For instance, before "6-10 times in the past year," "sometimes" was added, before "11-20 times in the past year," "fairly often" was added. This short form includes five subscales (i.e., assault, injury, psychological aggression, sexual coercion, and negotiation), which each subscale contains two items of different severity. One sample item is, "My partner pushed, shoved, or slapped me." The short form was found to be comparable in validity to the full scale (Straus & Douglas, 2004).

Due to the interest of the current study, only the subscales of Physical Assault and Psychological Aggression were used in the analyses. According to the scoring method suggested by Straus et al. (1996), the CTS is scored by averaging the midpoints for the response categories selected by participants. The midpoints for the first two categories "once" and "twice" are 1 and 2 respectively. For Category 3 (3-5 times) the midpoint is 4, for Category 4 (6-10 times) it is 8, for Category 5 (11-20 times) it is 15, and for Category 6 (more than 20 times) it is recommended to use 25 as the midpoint. The current study found that the internal consistency estimate for Physical Assault subscale is .70, and for Psychological Aggression is .62.

Rejection sensitivity. Rejection sensitivity was measured with Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996; see Appendix K). This measure contains 18 situations where the participants were asked to rate with a 6-point response scale (*-1 = very unconcerned* to *6 = very concerned*) as to how anxious or concerned they would be regarding the responses of others as well as how likely they think others will reject their requests (*1 = very unlikely* to *6 = very likely*). One sample item is, "You call your boyfriend/girlfriend after a bitter argument and tell him/her you want to see him/her. How concerned or anxious would you be over whether or not your boyfriend/girlfriend would want to see you?" and how likely it is that [you] "would expect that he/she would want to see [you]?" This measure was found to have adequate internal consistency (alpha = .81). The current study found that this scale has satisfactory internal consistency estimate (alpha = .89).

CHAPTER III. RESULTS

Table 2 describes the intercorrelations and internal consistencies for the measures, and Table 3 describes the range, mean, and standard deviation of the measures. Because age had low correlations with the majority of the variables, and with the large sample size, age was not included in the regression analyses. For the regression analyses, whenever the interaction term is not significant, it was dropped from the analysis and the regression was rerun without the interaction term.

Hypothesis A. Attachment to Mother and Father

Question: Is the attachment to mother and father significantly different? And are there gender differences?

A pair-sample *t* test was conducted to examine the differences in attachment to mother and father, respectively, for participants. Between the range of -3 to 3, the average attachment score to mother is 1.81 (SD = 1.15), and the average attachment score to father is 1.04 (SD = 1.56). The attachment to mother is significantly higher than the attachment to father (t (401) = 9.65, p < .001). Because attachment to mother is much higher than attachment to father, later analyses were conducted separately for mother and father. Furthermore, the items were further broken down to the three attachment subscales (warm, cold, ambivalent), and pair-sample *t* tests were conducted to examine the differences between mother and father. Mother's ratings were significantly higher than father's ratings (this is after reverse coding to show "secure" direction for all three subscales, which is, the higher the score, the more secure it is). Thus, the students' answers suggest that they rated mother's attachment styles to be warmer (t (401) = 9.19, p < .001), less cold (t (401) = 8.69, p < .001), and less ambivalent (t (401) = 7.39, p < .001) when compared to father's attachment styles.

Further analyses regarding gender differences in attachment levels were examined and analysis of variance was conducted with gender as the grouping variable. The total attachment levels to mothers and fathers are comparable in male and female participants, and the results are not significant. Additionally, no significant gender differences were found among the subtypes of attachment styles, regardless of whether it was attachment to mother or father.

Hypothesis B. Childhood Attachment and Adolescent Bullying

Question: Does childhood attachment predict adolescent bullying and does the prediction differ by gender?

Attachment to Mother as a Predictor

Multiple regression models were conducted. Female participants were coded as "0," and male participants were coded as "1." The changes in intercept from female to male were examined. Initially, gender, attachment to mother, and the interaction between these two variables were entered as predictors. The interaction term was not significant. Please note that for all regression analyses results, standardized betas were reported unless there was an interaction, in which case unstandardized betas were reported. As indicated in Table 4a, the results suggest that both gender and attachment to mother are significant predictors for In-Person Bullying-Offending, F (2, 400) = 19.03, $p < .001$, R^2 =.09 as well as for Cyberbullying-Offending, F (2, 396) = 19.95, $p < .001$, R^2 =.06. Attachment to mother was the only predictor for In-Person Bullying-Victimized, F (2, 399) = 11.10, $p < .001$, R^2 =.05, and for Cyberbullying-Victimized, F (2, 399) = 9.88, $p < .001$, R^2 =.05. It suggests that for those who have higher attachment to mother, they are less likely to be involved in traditional and cyberbullying as either a bully or a victim. Male participants had higher intercepts than female participants, indicating that male

participants committed more in-person and cyber bullying when compared to female participants.

Attachment to Father as a Predictor

Multiple regression models were also conducted for attachment to father. Gender, attachment to father, and the interaction between these two variables were entered as predictors. For the model with In-Person Bullying-Offending as the dependent variable, F (3, 399) = 13.79, $p <$ .001, R^2 =.09, the results indicated a main effect for gender (for male participants, M = 1.06, SD = .85; for female participants, M = .66, SD = .62) and an interaction effect between gender and attachment to the father (see Table 4b). The interaction figure is in Figure 1. The level of attachment to father in earlier years does not appear to influence female participants' later in-person bullying-offending experience as an adolescent. However, if earlier attachment to father was high, the male participants tended to have lower involvement in in-person bullying offending as an adolescent, when compared to those with low attachment to father. In other words, attachment to father appears to be more of a protective factor for boys than for girls from later in-person bullying-offending involvement.

The interaction term was not significant for the latter three models (see Table 4b for results). Both gender and attachment to father were significant predictors of Cyberbullying-Offending scale, F (2, 396) = 10.22, $p < .001$, R^2 =.05. As for the Cyberbullying-Victimized model, only attachment to father is a significant predictor, F (2, 399) = 4.98, $p < .01$, R^2 =.02. When the In-Person Bullying-Victimized was the dependent variable, the model was not significant. It suggests that for those who have higher attachment to father, they are less likely to be involved in cyberbullying as either a bully or a victim. Male participants had higher intercept than female

participants, indicating that male participants committed more cyber bullying than female participants.

Hypothesis C. Childhood Attachment and Romantic Relationships

Question: Does childhood attachment predict romantic relationship variables and does the prediction differ by gender?

Attachment to Mother as Predictor

Multiple regression models were conducted. Initially, gender, attachment to mother, and the interaction between these two variables were entered as predictors of romantic relationship variables (romantic attachment, trust, relationship satisfaction, dating violence subscales physical assault and psychological aggression, and rejection sensitivity), respectively. The interaction term was not significant for any of the outcome variables. The results are presented in Table 5a. Attachment to mother was a positive predictor for romantic attachment, F (2, 395) = 21.79, $p <$ .001, R^2 =.10, trust, F (2, 383) = 5.04, $p <$ .01, R^2 =.03, relationship satisfaction, F (2, 383) = 3.61, $p <$ .05, R^2 =.02. And attachment to mother was a negative predictor for physical assault F (2, 378) = 5.83, $p <$ .01, R^2 =.03, psychological aggression, F (2, 378) = 7.69, $p <$ .01, R^2 =.04, and rejection sensitivity, F (2, 377) = 33.97, $p <$ .001, R^2 =.15.

Attachment to Father as a Predictor

Similarly, gender, attachment to father, and the interaction between these two variables were entered as predictors. The interaction term was not significant in all models. The results appear to be similar to the ones with attachment to mother, except for the prediction of physical assault, which was not significant. Specifically, attachment to father was a positive predictor for romantic attachment, F (2, 395) = 19.92, $p <$ .001, R^2 =.09, trust, F (2, 383) = 8.91, $p <$ .01, R^2 =.04, and relationship satisfaction, F (2, 383) = 5.38, $p <$ .01, R^2 =.03. Moreover, attachment to

father was a negative predictor for psychological aggression, F (2, 378) = 5.16, $p < .01$, R^2 =.03, and rejection sensitivity, F (2, 377) = 10.18, $p < .001$, R^2 =.05. The results are presented in Table 5b.

Hypothesis D. Adolescent Bullying and Romantic Relationships

Question: Does adolescent bullying predict romantic relationship variables and does the prediction differ by gender?

In-Person Bullying-Offending as a Predictor

Multiple regression models were conducted. Initially, gender, each type of bullying involvement, and the interaction between the two variables were entered as predictors to romantic relationship variables (romantic attachment, trust, relationship satisfaction, dating violence subscales physical assault and psychological aggression, and rejection sensitivity), respectively. When gender, In-Person Bullying-Offending, and the interaction term were entered as predictors, the interaction term ($p < .05$) as well as In-Person Bullying-Offending ($p < .001$) were both significant predictors for psychological aggression, F (3, 383) = 15.72, $p < .001$, R^2 =.11. The interaction figure is in Figure 2. When the involvement in in-person bullying offending was low, the psychological aggression in their dating relationships was about the same for both genders. However, when the involvement in in-person bullying offending was high, female participants tended to have higher psychological aggression in their dating relationships when compared to their male counterparts.

As for other models, the interaction term was not significant. The results are presented in Table 6a. Gender and In-Person Bullying-Offending were both significant predictors for romantic attachment, F (2, 396) = 11.71, $p < .001$, R^2 =.06, and rejection sensitivity, F (2, 378) = 9.35, $p < .001$, R^2 =.05, whereas only In-Person Bullying-Offending was a significant predictor

for trust, F (2, 384) = 3.31, $p < .05$, R^2 =.02, relationship satisfaction, F (2, 384) = 3.88, $p < .05$, R^2 =.02, and physical assault, F (2, 379) = 20.30, $p < .001$, R^2 =.10. Specifically, male participants had a higher intercept than female participants in the model predicting romantic attachment, indicating that male participants scored higher on romantic attachment than female participants. In contrast, male participants scored lower than female participants on rejection sensitivity. In-Person Bullying-Offending was a positive predictor for physical assault, psychological aggression, and rejection sensitivity, and a negative predictor for romantic attachment, trust, and satisfaction.

In-Person Bullying-Victimization as a Predictor

When gender, In-Person Bullying-Victimized, and their interaction were entered as predictors, the interaction term was not significant in all models. In-Person Bullying-Victimized was a significant predictor for all of the romantic relationship variables: romantic attachment, F (2, 395) = 21.21, $p < .001$, R^2 =.10, trust, F (2, 383) = 4.19, $p < .05$, R^2 =.02, relationship satisfaction, F (2, 383) = 3.09, $p < .05$, R^2 =.02, physical assault, F (2, 378) = 10.85, $p < .001$, R^2 =.05, psychological aggression, F (2, 378) = 10.34, $p < .001$, R^2 =.05, and rejection sensitivity, F (2, 377) = 20.81, $p < .001$, R^2 =.10. Specifically, In-Person Bullying-Victimized was a positive predictor for physical assault, psychological aggression, and rejection sensitivity, and a negative predictor for romantic attachment, trust, and satisfaction. The results are presented in Table 6b.

Cyberbullying-Offending as a Predictor

When gender, Cyberbullying-Offending, and their interaction were entered as predictors, the interaction term and Cyberbullying-Offending are significant predictors for psychological aggression, F (3, 378) = 12.45, $p < .001$, R^2 =.09. The interaction figure is in Figure 3. It suggests that when cyberbullying-offending involvement as a teenager was low, the scores on

psychological aggression in their later romantic relationships were about the same for both genders. However, when cyberbullying-offending involvement was high, it significantly affected female participants more on psychological aggression. That is, when cyberbullying-offending involvement was high, female participants had higher psychological aggression in their dating relationships when compared to male participants.

The interaction term was not significant for all other models. Gender and Cyberbullying-Offending were both significant predictors for romantic attachment, F (2, 396) = 8.12, $p < .001$, R^2 =.04. Because male participants had a higher intercept than female participants, they scored higher on romantic attachment. Only Cyberbullying-Offending is a predictor for trust, F (2, 384) = 3.60, $p < .05$, R^2 =.02, and physical assault, F (2, 379) = 13.73, $p < .001$, R^2 =.07. Thus, Cyberbullying-Offending was a positive predictor for physical assault, and a negative predictor for romantic attachment and trust. The results are presented in Table 6c.

Cyberbullying-Victimization as a Predictor

Finally, when gender, Cyberbullying-Victimized, and their interaction were entered as predictors, the interaction effect was the only significant predictor for Physical Assault, F (2, 378) = 11.05, $p < .001$, R^2 =.08. The interaction figure is in Figure 4. It suggests that for male participants, when compared to female participants, the level of cyberbullying-victimized involvement as a teenager had a larger impact on the level of physical assault in their later romantic relationships. Specifically, when the level of cyberbullying-victimized involvement as a teenager was low, boys appeared to have lower physical assault in their later romantic relationships than girls did. However, when the level of cyberbullying-victimized involvement was high, boys appeared to have higher physical assault in their later romantic relationships than girls did.

For other models, the interaction was not significant. Cyberbullying-Victimized was the only significant predictor for the other four romantic relationship variables: romantic attachment, F (2, 396) = 18.47, $p < .001$, R^2 =.09, trust, F (2, 384) = 6.60, $p < .01$, R^2 =.03, psychological aggression, F (2, 379) = 7.80, $p < .001$, R^2 =.04, and rejection sensitivity, F (2, 378) = 7.66, $p <$ .01, R^2 =.04. Specifically, Cyberbullying -Victimized was a positive predictor for physical assault, psychological aggression, and rejection sensitivity, and a negative predictor for romantic attachment and trust. The results are presented in Table 6d.

Hypothesis E. Childhood Attachment and Adult Attachment

Question: Is childhood attachment style correlated with adult romantic attachment style?

Inter-correlations between ratings on childhood attachment and two scales of romantic attachment, as well as the combined romantic attachment scale, were examined. As predicted, childhood attachment is significantly correlated with adult romantic attachment. Please see Table 7(a) for results. Specifically, the correlation between attachment to mother with romantic attachment measured by the ATT is r = .28, p <.001, with romantic attachment measured by the ECR-R is r = -.32, p <.01, and with romantic attachment measured by the combined measure is r = .30, p <.001. The correlation between attachment to father with romantic attachment measured by the ATT is r = .27, p <.001, with romantic attachment measured by the ECR-R is r = -.30, p <.001, and with romantic attachment measured by the combined measure is r = .29, p <.001. The correlation between attachment to mother and attachment to father was also examined, which is r = .34, p <.01. Fisher r-to-z transformations were conducted to examine whether the correlations listed above were significantly different by attachment to mother and father. None of the pairs were significantly different from each other, ps < .05.

The correlation estimates were also obtained for male and female participants, respectively (please see Tables 7(b) and 7(c) for results). Fisher *r*-to-*z* transformations were conducted to examine gender differences in the correlations. Significant gender difference in correlation between attachment to mother and father was found. For male participants, the correlation between attachment to mother and father was significantly higher ($r = .60$ among male participants vs. $r = .27$ among female participants), when compared to female participants, Fisher's $z = 3.66$, $p < .01$.

Hypothesis F. Childhood Attachment, Adolescent Bullying, Adult Attachment and Romantic Relationships.

Question: How will childhood attachment and adolescent bullying together predict romantic attachment and trust in romantic relationship, separately?

A series of regression analyses were conducted to evaluate the relationship between dependent variables (romantic attachment and trust) and independent variables/predictors (childhood attachment and adolescent bullying, and their interactions). Specifically, the following variables were entered in the regression analyses as predictors: gender, childhood attachment (put in attachment to mother and attachment to father, respectively), bullying involvement variables, interaction terms between childhood attachment and gender, and between bullying involvement variables and gender. The dependent variables involve romantic attachment and trust, respectively. Because the interaction terms between childhood attachment and gender as well as bullying involvement variables and gender were not significant predictors ($p > .05$) for all the models, they were removed from further regression analyses.

Predicting Romantic Attachment

When gender, attachment to mother, and bullying involvement variables were entered as predictors for romantic attachment, as predicted, the results correspond to the hypothesized directions. Specifically, Model 1 assessed the estimated effects of gender, attachment to mother, and In-Person Bullying-Offending on romantic attachment. Gender, In-Person Bullying-Offending and attachment to mother all significantly predict adult romantic attachment (see Table 8a), F (3, 394) = 19.83, $p < .001$, R^2 =.13. Model 2 assessed the estimated effects of gender, attachment to mother, and In-Person Bullying-Victimized on romantic attachment. In-Person Bullying-Victimized and attachment to mother significantly predict adult romantic attachment, F (3, 393) = 24.35, $p < .001$, R^2 =.16. Model 3 assessed the estimated effects of gender, attachment to mother, and Cyberbullying-Offending on romantic attachment. Cyberbullying-Offending and attachment to mother significantly predict adult romantic attachment, F (3, 394) = 17.58, $p < .001$, R^2 =.12. Finally, Model 4 assessed the estimated effects of gender, attachment to mother, and Cyberbullying-Victimized on romantic attachment. Cyberbullying-Victimized and attachment to mother also significantly predict adult romantic attachment, F (3, 394) = 22.602, $p < .001$, R^2 =.15.

Same analyses were conducted with attachment to father. When gender, attachment to father, and bullying involvement variables were entered as predictors for romantic attachment, the results correspond to the hypothesized directions. Specifically, Model 1 assessed the estimated effects of gender, attachment to father, and In-Person Bullying-Offending on romantic attachment. Gender, In-Person Bullying-Offending and attachment to father all significantly predict adult romantic attachment (see Table 8b), F (3, 394) = 19.06, $p < .001$, R^2 =.13. Model 2 assessed the estimated effects of gender, attachment to father, and In-Person Bullying-

Victimized on romantic attachment. In-Person Bullying-Victimized and attachment to father significantly predict adult romantic attachment, F (3, 393) = 26.45, $p < .001$, R^2 =.17. Model 3 assessed the estimated effects of gender, attachment to father, and Cyberbullying-Offending on romantic attachment. Cyberbullying-Offending and attachment to father significantly predict adult romantic attachment, F (3, 394) = 17.07, $p < .001$, R^2 =.12. Finally, Model 4 assessed the estimated effects of gender, attachment to father, and Cyberbullying-Victimized on romantic attachment. Similarly, Cyberbullying-Victimized and attachment to father also significantly predict adult romantic attachment, F (3, 394) = 22.86, $p < .001$, R^2 =.15.

Predicting Trust

When gender, attachment to mother, and bullying involvement variables were entered as predictors for trust, as predicted, the results correspond to the hypothesized directions. Specifically, Model 1 assessed the estimated effects of gender, attachment to mother, and In-Person Bullying-Offending on trust. In-Person Bullying-Offending and attachment to mother both significantly predict trust (see Table 8c), F (3, 382) = 4.85, $p < .01$, R^2 =.04. Model 2 assessed the estimated effects of gender, attachment to mother, and In-Person Bullying-Victimized on trust. In-Person Bullying-Victimized and attachment to mother significantly predict trust, F (3, 381) = 5.06, $p < .01$, R^2 =.04. Model 3 assessed the estimated effects of gender, attachment to mother, and Cyberbullying-Offending on trust. Cyberbullying-Offending and attachment to mother significantly predict trust, F (3, 382) = 5.02, $p < .01$, R^2 =.04. Finally, Model 4 assessed the estimated effects of gender, attachment to mother, and Cyberbullying-Victimized on trust. Cyberbullying-Victimized and attachment to mother also significantly predict trust, F (3, 382) = 6.43, $p < .001$, R^2 =.05.

Same analyses were conducted to predict trust with attachment to father. When gender, attachment to father, and bullying involvement variables were entered as predictors for trust, the results correspond to the hypothesized directions. Specifically, Model 1 assessed the estimated effects of gender, attachment to father, and In-Person Bullying-Offending on trust. In-Person Bullying-Offending and attachment to father both significantly predict trust (see Table 8d), F (3, 382) = 7.55, $p < .001$, R^2 =.06. Model 2 assessed the estimated effects of gender, attachment to father, and In-Person Bullying-Victimized on trust. In-Person Bullying-Victimized and attachment to father significantly predict trust, F (3, 381) = 8.40, $p < .001$, R^2 =.06. Model 3 assessed the estimated effects of gender, attachment to father, and Cyberbullying-Offending on trust. Cyberbullying-Offending and attachment to father significantly predict trust, F (3, 382) = 7.88, $p < .001$, R^2 =.06. Finally, Model 4 assessed the estimated effects of gender, attachment to father, and Cyberbullying-Victimized on trust. Similarly, Cyberbullying-Victimized and attachment to father also significantly predict trust, F (3, 382) = 9.28, $p < .001$, R^2 =.07.

CHAPTER IV. DISCUSSION

Much research has focused on examining the relationship between earlier childhood attachment with parents and adolescent bullying involvement, the relationship between adolescent bullying involvement and adult romantic attachment, as well as the relationship between earlier attachment with parents and later romantic attachment with romantic partners. It is rare to find any studies that have examined the linkages among all three stages. This is the first study that have examined the relationships among childhood attachment, adolescent bullying involvement, and adult romantic attachment and relationships and have demonstrated a linkage between them. By extending theoretical framing by John Bowlby (1980, 1988) and Inge Bretherton (1985, 1988) on internal working model, I was able to provide some evidence that children's internal working model may change across the lifetime due to later experiences. Additionally, childhood attachment and adolescent bullying involvement uniquely contributes to later romantic attachment as well as romantic relationship satisfaction. In other words, childhood attachment and the initial internal working model in life does not determine an individual's life course and relationship patterns, but later positive or negative experiences, such as bullying involvement as teenager, have a substantial effect on later romantic relationship qualities as well as internal working model. We also found some interesting interaction results and gender differences, which will be discussed below.

Attachment to Mother and Father

The first analysis examined the differences between attachment to mother and father, as well as the potential gender differences between these two. Total average attachment to mother is significantly higher than the total average attachment to father among all participants. As for the subtypes, mothers' ratings were rated more favorably toward secure attachment. In other words,

the participants reported that when compared to fathers/father figures, they were more securely attached with their mothers/mother figures, and they considered their mothers less cold and less ambivalent when compared to their fathers. This result is contrary to the study that found comparable classification of attachment styles with mothers and fathers during infancy (e.g., Main & Weston, 1981). However, it should be noted that the measures are different in these two studies, and Main and Weston (1981) tested the participants when the infants were only 12 months and 18 months. The current findings are consistent with what Lucassen et al. (2011) has found, which was that mothers engaged in more interactions with their children when compared to fathers. As a result, later analyses were conducted separately for attachment for mothers and fathers. Additionally, no significant gender differences were found in their total average attachment to mothers and fathers as well as in the subtypes of attachment.

Childhood Attachment and Adolescent Bullying

The second analysis examines the predictive relationships between childhood attachment and adolescent bullying involvement and whether parental attachment and gender play a role in predicting adolescent bullying involvement. It was predicted that secure attachment with both parents would predict less bullying involvement later as an adolescent, and insecure attachment would predict more involvement in bullying. The analyses were conducted for attachment to mother and attachment to father, respectively.

Gender and attachment to mother were both significant predictors for In-Person Bullying-Offending and Cyberbullying-Offending, whereas only attachment to mother was a significant predictor for In-Person Bullying-Victimized and Cyberbullying-Victimized. When attachment to father is a predictor, both gender and attachment to father were significant predictors for Cyberbullying-Offending, and only attachment to father is a significant predictor for

Cyberbullying-Victimized. In other words, secure attachment with either parent earlier in life appears to be a protective factor for later involvement in bullying, including protecting someone from involving in cyberbullying-offending and cyberbullying-victimization experiences. Attachment to mother also protects the child from being an in-person bullying victim and/or bully as an adolescent. This is consistent to previous findings that insecure attachment is associated with different roles of involvement in bullying, including involvement as bullies, and victims (Ireland & Power, 2004; Kokkinos, 2013; Monks et al., 2005; Troy & Sroufe, 1987). It also suggests that being a male is more likely to be a bully, regardless of whether it is in-person bullying or cyberbullying. However, gender does not make a difference in being a victim or not, regardless of the forms of bullying. Note that attachment to father was also not a protective factor for in-person bullying victimization experiences. This may be due to the lower attachment to father in general, and more interventions may be needed to facilitate the development of attachment to father, which may in turn protects the children from bullying involvement. In general, these findings also provide evidence that early internal working model formed from child-parent interaction may have a lasting effect on their peer relationships, which may be mediated by trust and social skills associated with early internal working model.

Additionally, the interaction between gender and attachment to father was a significant predictor for In-Person Bullying-Offending. It suggests that the level of early attachment to father, regardless of high or low, does not appear to influence female participants' later in-person bullying-offending experiences as an adolescent. In contrast, if earlier attachment to father was high, the male participants tend to have lower involvement in in-person bullying offending as an adolescent, when compared to those with low attachment to father. In other words, attachment to father protects boys, but not girls, from in-person bullying-offending involvement. This indicates

that the early relationship with father may have a larger impact for a son as he grows up. This is consistent with a study conducted by Chang, Schwartz, Dodge, and McBride-Chang (2003), which found that father's harsh parenting has an effect on child aggression, especially for sons.

Childhood Attachment and Romantic Relationships

As for the third hypothesis, we hypothesized that attachment to either parent significantly predicts romantic relationship variables, including romantic attachment, trust, satisfaction, physical assault, psychological aggression, and rejection sensitivity. The results are similar regardless of whether attachment to mother or attachment to father is a predictor. Attachment to mother is a significant predictor for all dependent variables, and attachment to father is a significant predictor for all dependent variables except physical assault. This is consistent with the previous research findings. For instance, previous research suggests that early secure attachment with parents are associated with more secure relationships later in their lives (Bowlby, 1969; Bowlby, 1973; Hazan & Shaver, 1994), as well as higher trust and satisfaction in their romantic relationships (Hazan & Shaver, 1987; Simpson, 1990). The previous research also found that secure adult attachment was associated with lower rejection sensitivity (Collins & Feeney, 2004). Similarly, the current study found that secure childhood attachment with either parents also significantly predict rejection sensitivity later in life. Physical assault was not predicted by attachment to father here partly may be due to the low average endorsement of physical assault (.40). The results in general also highlight the linkage between child and adult romantic attachments connected through internal working model. Although these two relationships are inherently different in some aspects (e.g., major attachment figures being parents vs. romantic partners), we can see that the link between them is still strong, indicating

that the internal working model developed earlier in life may still exert substantial effects toward adulthood.

Adolescent Bullying and Romantic Relationships

The fourth hypothesis examines the predictive relationships between adolescent bullying involvement and romantic relationships. Specifically, we examined whether adolescent bullying and gender predict romantic relationship variables. The interaction term between gender and In-Person Bullying-Offending was only significant when the dependent variable is psychological aggression. When the involvement in in-person bullying offending was low, the psychological aggression in their dating relationships was about the same for both male and female participants. However, when the involvement in in-person bullying offending was high, female participants tended to have higher psychological aggression in their dating relationships when compared to their male counterparts. Because psychological aggression was measured through adding all psychological aggression from both romantic partners, it is hard to know who may be the major perpetrator for aggression or the aggression is mutual. However, we do see that if a girl is involved as a bully, it is likely that this pattern may be carried over to her later romantic relationship, either she continues to be a perpetrator or her aggression provokes aggression from her partner.

For other models, gender and In-Person Bullying-Offending are both significant predictors for romantic attachment and rejection sensitivity, whereas only In-Person Bullying-Offending is a significant predictor for trust, satisfaction, and physical assault. Male participants were more likely to have higher romantic attachment as well as lower rejection sensitivity when compared to females. It is interesting to find that men scored higher on romantic attachment, which indicates that they feel more closely attached to their romantic partners than women do. It merits

further exploration as to why this is the case. Higher In-Person Bullying-Offending involvement significantly predicts lower romantic attachment, lower trust, lower satisfaction in a relationship, higher rejection sensitivity, and higher frequency of physical assault in their dating relationships.

When gender and In-Person Bullying-Victimized were the predictors for romantic relationship variables, only In-Person Bullying-Victimized was a significant predictor for all six variables (romantic attachment, trust, satisfaction, physical assault, psychological aggression, and rejection sensitivity). Thus, those who were involved in traditional bullying as a victim tend to have lower romantic attachment, trust, relationship satisfaction, experienced more physical assault and psychological aggression in their romantic relationships, and have higher scores on rejection sensitivity.

Additionally, when gender, Cyberbullying-Offending, and their interaction were entered as predictors, the interaction term and Cyberbullying-Offending were significant predictors for psychological aggression. It suggests that when cyberbullying-offending involvement was low, the scores on psychological aggression were about the same for male and female participants. However, when cyberbullying-offending involvement was high, it significantly affected female participants more on their psychological aggression (i.e., more psychological aggression among their dating relationships), when compared to male participants. This is consistent with the findings regarding In-Person Bullying-Offending, which also has a larger impact on girls' couple psychological aggression when it is high. This suggests that women may play a more dominant role in their romantic relationship and that their aggression pattern may be more consistent between adolescent stage and early adulthood as well as across peer relationship and romantic relationship.

Gender and Cyberbullying-Offending are both significant predictors for romantic attachment, and only Cyberbullying-Offending is a predictor for trust and physical assault. Those who have been involved in cyberbullying as an offender tend to have lower romantic attachment, trust, and higher physical assault.

Finally, when gender, Cyberbullying-Victimized, and their interaction were entered as predictors, the interaction effect is the only significant predictor for physical assault. It suggests that for male participants, when compared to female participants, the level of cyberbullying-victimized experience had a larger predictive effect on physical assault involvement in their later romantic relationships. If a boy had been a cyberbullying victim as an adolescent, he may experience more physical assault in his later romantic relationships than a girl may. This finding merits further exploration. Cyberbullying-Victimized is the only significant predictor for the other five romantic relationship variables (romantic attachment, trust, satisfaction, psychological aggression, and rejection sensitivity). In other words, involvement in cyberbullying as a victim predicts lower romantic attachment, trust, relationship satisfaction, and high scores on physical assault, psychological aggression, and rejection sensitivity.

Childhood Attachment and Adult Attachment

The fifth hypothesis examined the relationship between childhood attachment and adult romantic attachment. Regardless of whether the childhood attachment is measured by attachment to father or mother, and whether the romantic attachment is measured by ATT, ECR-R, or these two measures combined, they all had significant correlations, respectively. The correlations are mild to moderate. The results are consistent with the theory of internal working model, which suggests that the attachment model with parents in childhood will be carried over to later relationships (Bowlby, 1969; Bowlby, 1973; Hazan & Shaver, 1994; McElhaney et al., 2009).

The mild to moderate correlations also indicate that these two are not the same concepts. As indicated by Furman et al. (2002), there may be different behavioral systems that are active in these two types of relationships. The attachment to father and attachment to mother was also mildly correlated, indicating a link between them but also suggests that they are different concepts and further exploration may be needed to examine why the correlation is only mild.

Additionally, the correlations between childhood and romantic attachment were also compared when childhood attachment was attachment to father or mother. There was no significant difference, suggesting that the association between attachment to father and romantic attachment, and the association between attachment to mother and romantic attachment, is comparable to each other. On the other hand, for male participants, the correlation between attachment to mother and father was significantly higher when compared to female participants. This may indicate that both parents may treat boys more similarly when compared to girls, and/or that perceived the treatment from mother and father differently.

Childhood Attachment, Adolescent Bullying, Adult Attachment and Romantic Relationships

A series of regression analyses were conducted to evaluate the relationship between dependent variables (romantic attachment and trust) and independent variables/predictors (childhood attachment and adolescent bullying, and their interactions). As predicted, the results correspond to the hypothesized directions. For example, In-Person Bullying-Offending and attachment to mother significantly and uniquely predict adult romantic attachment. Same analyses were also conducted on other bullying involvement measures (In-Person Bullying-Victimized, Cyberbullying-Offending, and Cyberbullying-Victimized) as well as attachment to

father, and used trust as a dependent variable, and the results also correspond to the hypothesized directions.

Specifically, when romantic attachment is the dependent variable with attachment to mother and bullying involvement as predictors, attachment to mother and bullying involvement variables are all significant predictors, respectively. The more secure someone is to his or her mother in early childhood, and the less they were involved in bullying as an adolescent, the more likely it is for them to be securely attached to their romantic partners later on as a young adult. It should be noted that both attachment to mother and bullying involvement are unique predictors for romantic attachment. Gender was also a significant predictor in the models when In-Person Bullying-Offending, In-Person Bullying-Victimized, and Cyberbullying-Offending are predictors, respectively. It suggests that male participants tend to have higher romantic attachment when compared to female participants. On the other hand, when attachment to father was the predictor instead of attachment to mother, the results were approximately the same. The only difference was that in the model with In-Person Bullying-Victimized as a predictor, other than attachment to father and In-Person Bullying-Victimized being significant predictors, gender was no longer a significant predictor.

Similarly, when trust is the dependent variable with attachment to mother and bullying involvement as predictors, attachment to mother and bullying involvement variables are all significant predictors, respectively. The more secure someone is to his or her mother in early childhood, and the less they were involved in bullying as an adolescent, the more likely it is for them to have trust in their romantic partners later on as a young adult. It should be noted that gender was not a significant predictor in all models, indicating that gender does not play a role in predicting trust in these models. When attachment to father was the predictor instead of

attachment to mother, the results are approximately the same patterns as when attachment to mother was a predictor.

Limitations

There are some limitations in this study. First, this survey method potentially limits the method variance. Multi-methods may be used in the future to increase the method variance, such as adding qualitative measures and/or different informants (e.g., parents, peers, and romantic partners) to provide different perspectives. These methods may provide more in-depth information regarding the mechanisms through which the participants changed over time. Second, because it is a cross-sectional study, it is difficult to see long-term changes for the participants. Thus, it may warrant a longitudinal study in the future. Third, as a retrospective study, it is unknown how accurate the recall is for the participants, especially when they were asked to recall their early relationships with their parents. Thus, it may also be helpful to add the perspectives of others to provide more validation, such as adding their parent figures' perspectives on early attachment relationships. Fourth, there were a lot of regression analyses conducted, which may potentially increase Type I error, making it easier to reject the null hypotheses. Last but not least, although there are some agreement on the definition of bullying, it is difficult to find measurements that specifically tap all criteria in the definition.

Contribution and Future Research

Despite the above limitations, this study was the first to delineate the relationships among early attachment, peer relationships, and later romantic relationships. This study also examined the differences of different bullying roles as well as different types of bullying. The findings will help inform interventions in several stages: early attachment, teen bullying, and romantic relationship involvement. First, it is helpful to understand the significant link between early

childhood attachment, adolescent bullying involvement, and later romantic attachment and the qualities of romantic relationships. It is important to understand that as indicated in the internal working model theory, the relationship patterns may be carried over throughout their early years. Second, it is helpful to know the gender differences and interactions and how some variables may work for male and female participants in different ways. Thus, we will be able to help them in the areas that are most needed or deemed helpful. Last but not least, the findings can be used to educate those who are at risk in bullying both in person or online. Specifically, if they understand that their bullying involvement may have had some influence from their early attachment and may have a negative impact on their later romantic relationships, they may be less likely to be involved in bullying as an adolescent.

As for future research, longitudinal studies may provide follow-ups to see the changes and may be able to shed lights on some potential causal effects. It may also be helpful to collect data from adolescents in middle school or high school in order to compare with college participants. Their memories may also be more accurate if we are assessing what is happening now or more recently. Additionally, to make the results more generalizable, it is helpful to conduct this research in different populations and cultures. It is also helpful to develop and validate measurements to match the definitions of bullying. However, as indicated in the introduction, the definition of traditional bullying may not work similarly for cyberbullying. Further, I would like to conduct research that continue to examine the similarities and differences between traditional bullying and cyberbullying, in order to see whether we should view them as similar concepts or treat them differently.

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Table 1.
Descriptive statistics and demographics.

Variables	Frequency		Mean (*SD*)	Range
	n	%		
Age			19.84 (2.66)	18-49
Male			19.72 (1.94)	18-31
Female			19.87 (2.89)	18-49
Gender				
Male	109	26.3		
Female	301	72.5		
Classification				
Freshmen	142	34.2		
Sophomore	123	29.6		
Junior	80	19.3		
Senior	67	16.1		
Marital Status				
Single, never married	406	98.1		
Married	5	1.2		
Divorced/Separated/Widowed	3	.7		
Mother's Education			3.61 (1.32)	1-6
Some high school	8	1.9		
High school diploma	92	22.2		
Some college	86	20.7		
College degree	158	38.1		
Some graduate school	9	2.2		
Graduate degree	62	14.9		
Father's Education			3.30 (1.34)	1-6
Some high school	14	3.4		
High school diploma	134	32.3		
Some college	85	20.5		
College degree	131	31.6		
Some graduate school	0	0		
Graduate degree	51	12.3		
Annual household income				
Under $10,000	20	4.6		
$10,000-$29,999	36	8.5		
$30,000-$49,999	85	20.7		
$50,000-$69,999	85	20.5		
$70,000-$89,999	73	17.6		
Not provided	3	.7		

Variables	Frequency	
	n	%
Race/Ethnicity		
European American/Caucasian	329	79.3
Hispanic/Latino	9	2.2
African American/Black	48	11.6
Native American/Alaskan Native	0	0
Pacific Islander	2	.5
Asian/Asian-American	3	.7
Middle Eastern	3	.7
Multi-racial/multi-ethnic	14	3.4
Sexual Orientation		
Heterosexual	377	90.8
Bisexual	20	4.8
Gay/Lesbian	10	2.4

Table 2.
Intercorrelations and internal consistency estimates for measures.

Measures	1	2	3	4	5	6	7	8	9	10	11	12
1. Attachment to Mother	(0.89)											
2. Attachment to Father	.34**	(0.92)										
3. In-person Bullying-Offending	-.17**	-.11*	(0.93)									
4. In-person Bullying-Victimized	-.22**	-.11*	.61**	(0.96)								
5. Cyberbullying-Offending	-.16**	-0.09	.68**	.50**	(0.82)							
6. Cyberbullying - Victimized	-.21**	-.15**	.35**	.60**	.53**	(0.90)						
7. Romantic Attachment (ATT)	.28**	.27**	-.17**	-.29**	-.14**	-.26**	(0.80)					
8. Romantic Attachment (ECR-R)	-.32**	-.30**	.20**	.29**	.16**	.28**	-.83**	(0.96)				
9. Trust in Romantic Partner	.16**	.20**	-.13*	-.15**	-.13**	-.19**	.61**	-.69**	(0.91)			
10. Physical Assault	-.15**	-0.06	.31**	.22**	.26**	.20**	-.12*	.14**	-.17**	(0.70)		
11. Psychological Aggression	-.18**	-.14**	.28**	.22**	.25**	.19**	-.21**	.23**	-.31**	.38**	(0.62)	
12. Rejection Sensitivity	-.39**	-.22**	.19**	.31**	0.07	.19**	-.47**	.53**	-.31**	.10*	.13*	(0.89)

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

Note: Coefficient alphas are in parentheses.

Table 3.
Range, mean, and standard deviation of measures.

Measures (# of Items)	Range	Mean	S.D.
Attachment to Mother (9)	-3, 3	1.81	1.15
Attachment to Father (9)	-3, 3	1.03	1.57
In-person Bullying-Offending (18)	0, 5	0.76	0.71
In-person Bullying-Victimized (18)	0, 5	1.03	0.95
Cyberbullying-Offending (5)	0, 5	0.67	0.90
Cyberbullying-Victimized (9)	0, 5	0.74	0.98
Romantic Attachment (ATT) (9)	-3, 3	0.78	1.20
Romantic Attachment (ECR-R) (36)	-3, 3	-0.87	1.21
Trust in Romantic Partner (8)	-3, 3	1.10	1.31
Relationship Satisfaction (5)	-2, 2	0.83	0.98
Physical Assault (4)	0, 25	0.40	1.42
Psychological Aggression (4)	0, 25	1.80	2.82
Rejection Sensitivity (18)	1, 36	9.46	4.24

Table 4.

Estimated effects of attachment to parents and gender on bullying involvement

(a) Estimated effects of attachment to mother and gender on bullying involvement

	In-Person Bullying-Offending			*In-Person Bullying-Victimized*			*Cyberbullying-Offending*			*Cyberbullying-Victimized*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.84	.07		1.35	.09		.77	.09		1.16	.09	
Gender	.39	.08	.24***	.04	.10	.02	.40	.10	.19***	.00	.11	.00
Attachment to Mother	-.10	.03	-.16**	-.19	.04	-.23***	-.12	.04	-.15**	-.18	.04	-.22***

(b) Estimated effects of attachment to father and gender on bullying involvement

	In-Person Bullying-Offending			*In-Person Bullying-Victimized*			*Cyberbullying-Offending*			*Cyberbullying-Victimized*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.68	.05		-	-	-	.62	.06		.93	.06	
Gender	.57***	.10	.35	-	-	-	.41	.10	.20***	.02	.11	.01
Attachment to Father	-.02	.02	-.05	-	-	-	-.06	.03	-.10*	-.10	.03	-.16**
GenderXAttachment to Father	-.16**	.05	-.19									

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

Note: *b* and *SE* are unstandardized coefficients, and β is standardized coefficient; Standardized betas were reported unless there was an interaction, in which case unstandardized betas were reported.

Table 5. *Estimated effects of attachment to parents and gender on romantic relationship variables*

(a) Estimated effects of attachment to mother and gender on romantic relationship variables

	Romantic Attachment			*Trust*			*Satisfaction*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.21	.11		.76	.13		.65	.10	
Gender	.24	.12	.09	.05	.15	.02	-.09	.11	-.04
Attachment to Mother	.30	.05	.31***	.18	.06	.16**	.11	.04	.13*

	Physical Assault			*Psychological Aggression*			*Rejection Sensitivity*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.66	.14		2.77	.28		12.25	.40	
Gender	.29	.16	.09	-.47	.32	-.07	-.63	.45	-.07
Attachment to Mother	-.19	.06	-.15**	-.46	.13	-.18***	-1.5	.18	-.39***

(b) Estimated effects of attachment to father and gender on romantic relationship variables

	Romantic Attachment			*Trust*			*Satisfaction*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.54	.07		.91	.09		.75	.07	
Gender	.19	.13	.07	.01	.15	.00	-.12	.11	-.05
Attachment to Father	.22	.04	.30***	.18	.04	.21***	.10	.03	.16**

	Physical Assault			*Psychological Aggression*			*Rejection Sensitivity*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.39	.10		2.21	.19		10.23	.28	
Gender	.31	.17	.10	-.41	.33	-.06	-.50	.48	-.05
Attachment to Father	-.06	.05	-.07	-.27	.09	-.15**	-.60	.14	-.22***

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

Table 6. *Estimated effects of bullying involvement and gender on romantic relationship variables*

(a) Estimated effects of in-person bullying-offending and gender on romantic relationship variables

	Romantic Attachment			*Trust*			*Satisfaction*		
Variable	*b*	*SE*	*B*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	1.00	.08		1.25	.10		.97	.08	
Gender	.36	.13	.14**	.14	.16	.05	-.02	.12	-.01
In-Person Bullying-Offending	-.37	.08	-.23***	-.25	.10	-.13*	-.19	.07	-.14**

	Physical Assault			*Psych Aggression*			*Rejection Sensitivity*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	-.08	.11		.87	.23		8.78	.32	
Gender	.03	.16	.01	-.26	.49	-.04	-1.13	.50	-.12*
In-Person Bullying-Offending	.62	.10	.31***	1.63***	.26	.41	1.29	.31	.22***
GenderXIn-Person Bullying-Offending				-.82*	.41	-.19			

(b) Estimated effects of in-person bullying-victimized and gender on romantic relationship variables

	Romantic Attachment			*Trust*			*Satisfaction*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	1.13	.09		1.29	.11		.98	.08	
Gender	.24	.13	.09	.05	.15	.02	-.08	.11	-.04
In-Person Bullying-Victimized	-.37	.06	-.30***	-.20	.07	-.15**	-.13	.05	-.12*

	Physical Assault			*Psych Aggression*			*Rejection Sensitivity*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	-.01	.11		1.27	.23		8.21	.33	
Gender	.28	.16	.09	-.49	.32	-.08	-.73	.47	-.08
In-Person Bullying-Victimized	.33	.08	.21***	.66	.15	.22***	1.40	.22	.31***

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

(c) Estimated effects of cyberbullying-offending and gender on romantic relationship variables

	Romantic Attachment			*Trust*			*Satisfaction*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.89	.08		1.20	.09		.91	.07	
Gender	.31	.13	.12*	.12	.15	.04	-.06	.12	-.03
Cyberbullying-Offending	-.24	.06	-.19***	-.20	.08	-.14**	-.10	.06	-.09

	Physical Assault			*Psych Aggression*			*Rejection Sensitivity*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.10	.09		1.25	.21		9.39	.29	
Gender	.13	.16	.04	-.29	.40	-.05	-.77	.50	-.08
Cyberbullying-Offending	.40	.08	.25***	1.22***	.22	.39	.42	.25	.09
GenderXCyberbullying-Offending				-.69*	.32	-.19			

(d) Estimated effects of cyberbullying-victimized and gender on romantic relationship variables

	Romantic Attachment			*Trust*			*Satisfaction*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	1.03	.08		1.29	.10		-	-	
Gender	.22	.13	.08	.04	.15	.01	-	-	-
Cyberbullying-Victimized	-.33	.06	-.28***	-.24	.07	-.18***	-	-	-

	Physical Assault			*Psych Aggression*			*Rejection Sensitivity*		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.23	.11		1.49	.21		8.95	.31	
Gender	-.20	.21	-.06	-.46	.32	-.07	-.61	.48	-.06
Cyberbullying-Victimized	.11	.09	.08	.54	.15	.19***	.81	.22	.19***
GenderXCyberbullying-Victimized	.58***	.16	.27						

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

Table 7. *Intercorrelations estimates between childhood and romantic attachments*

(a) Intercorrelations estimates between childhood and romantic attachments (for all participants)

Measures	1	2
1. Attachment to Mother		
2. Attachment to Father	.34**	
3. Romantic Attachment (ATT)	.28**	.27**
4. Romantic Attachment (ECR-R)	-.32**	-.30**
5. Romantic Attachment (Combined)	.30**	.29**

(b) Intercorrelations estimates between childhood and romantic attachments (for male participants)

Measures	1	2
1. Attachment to Mother		
2. Attachment to Father	.60**	
3. Romantic Attachment (ATT)	.23*	.31**
4. Romantic Attachment (ECR-R)	-.24*	-.29**
5. Romantic Attachment (Combined)	.25*	.32**

(c) Intercorrelations estimates between childhood and romantic attachments (for female participants)

Measures	1	2
1. Attachment to Mother		
2. Attachment to Father	.27**	
3. Romantic Attachment (ATT)	.30**	.26**
4. Romantic Attachment (ECR-R)	-.35**	-.30**
5. Romantic Attachment (Combined)	.32**	.29**

**$p<.01$, *$p<.05$

Table 8. *Estimated effects of attachment to parents and bullying involvement on romantic attachment/trust*

(a) Estimated effects of attachment to mother and bullying involvement on romantic attachment

	Romantic Attachment											
	Model 1			Model 2			Model 3			Model 4		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.46	.12		.61	.13		.35	.12		.51	.12	
Gender	.36	.13	.14**	.26	.12	.10*	.31	.13	.12*	.24	.12	.09
Attachment to Mother	.28	.05	.28***	.25	.05	.25***	.28	.05	.28***	.26	.05	.26***
In-Person Bullying-Offending	-.30	.08	-.20***	-	-	-	-	-	-	-	-	-
In-Person Bullying-Victimized	-	-	-	-.30	.06	-.24***	-	-	-	-	-	-
Cyberbullying-Offending	-	-	-	-	-	-	-.18	.06	-.14**	-	-	-
Cyberbullying-Victimized	-	-	-	-	-	-	-	-	-	-.26	.06	-.22***

(b) Estimated effects of attachment to father and bullying involvement on romantic attachment

	Romantic Attachment											
	Model 1			Model 2			Model 3			Model 4		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.77	.09		.91	.09		.67	.08		.80	.19	
Gender	.32	.13	.12*	.21	.12	.08	.27	.13	.10*	.19	.12	.07
Attachment to Father	.20	.04	.27***	.19	.03	.26***	.20	.04	.28***	.19	.03	.26***
In-Person Bullying-Offending	-.32	.08	-.197***	-	-	-	-	-	-	-	-	-
In-Person Bullying-Victimized	-	-	-	-.34	.06	-.28***	-	-	-	-	-	-
Cyberbullying-Offending	-	-	-	-	-	-	-.20	.06	-.16**	-	-	-
Cyberbullying-Victimized	-	-	-	-	-	-	-	-	-	-.28	.06	-.24***

(c) Estimated effects of attachment to mother and bullying involvement on trust

	Trust											
	Model 1			Model 2			Model 3			Model 4		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	.92	.15		.97	.16		.89	.14		1.00	.15	
Gender	.13	.15	.04	.06	.15	.02	.12	.15	.04	.05	.15	.02
Attachment to Mother	.16	.06	.14**	.15	.06	.13*	.16	.06	.14**	.14	.06	.13*
In-Person Bullying-Offending	-.20	.10	-.11*	-	-	-	-	-	-	-	-	-
In-Person Bullying-Victimized	-	-	-	-.16	.07	-.12*	-	-	-	-	-	-
Cyberbullying-Offending	-	-	-	-	-	-	-.17	.08	-.12*	-	-	-
Cyberbullying-Victimized	-	-	-	-	-	-	-	-	-	-.21	.07	-.15**

(d) Estimated effects of attachment to father and bullying involvement on trust

	Trust											
	Model 1			Model 2			Model 3			Model 4		
Variable	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*	*b*	*SE*	*β*
Intercept	1.05	.11		1.11	.12		1.01	.10		1.10	.11	
Gender	.09	.15	.03	.02	.15	.01	.08	.15	.03	.01	.15	.00
Attachment to Father	.17	.04	.20***	.16	.04	.20***	.17	.04	.20***	.16	.04	.19***
In-Person Bullying-Offending	-.21	.10	-.11*	-	-	-	-	-	-	-	-	-
In-Person Bullying-Victimized	-	-	-	-.19	.07	-.13**	-	-	-	-	-	-
Cyberbullying-Offending	-	-	-	-	-	-	-.18	.07	-.12*	-	-	-
Cyberbullying-Victimized	-	-	-	-	-	-	-	-	-	-.21	.07	-.16**

Figure 1.
Interaction effect of attachment to father and gender on in-person bullying-offending.

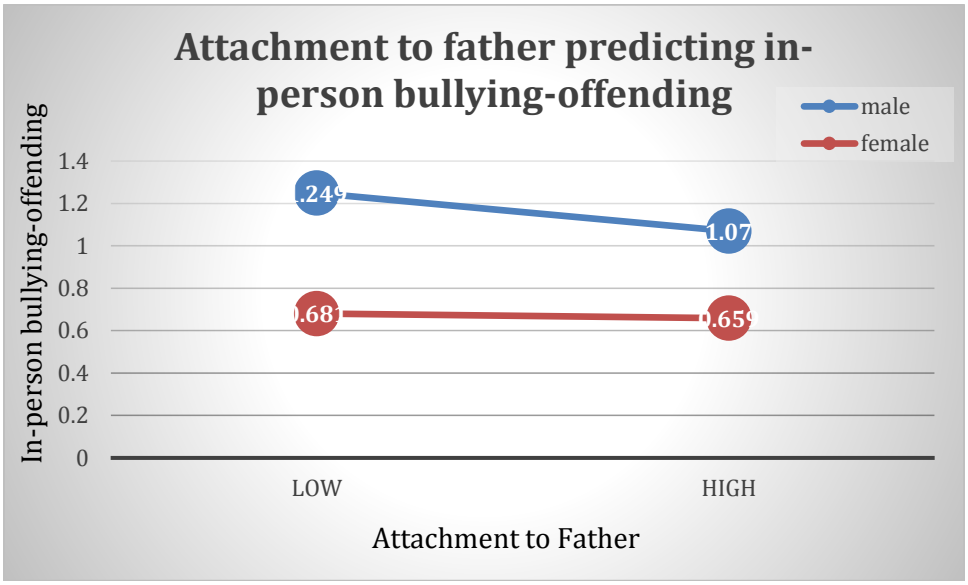


Figure 2.
Interaction effect of in-person bullying-offending and gender on psychological aggression.

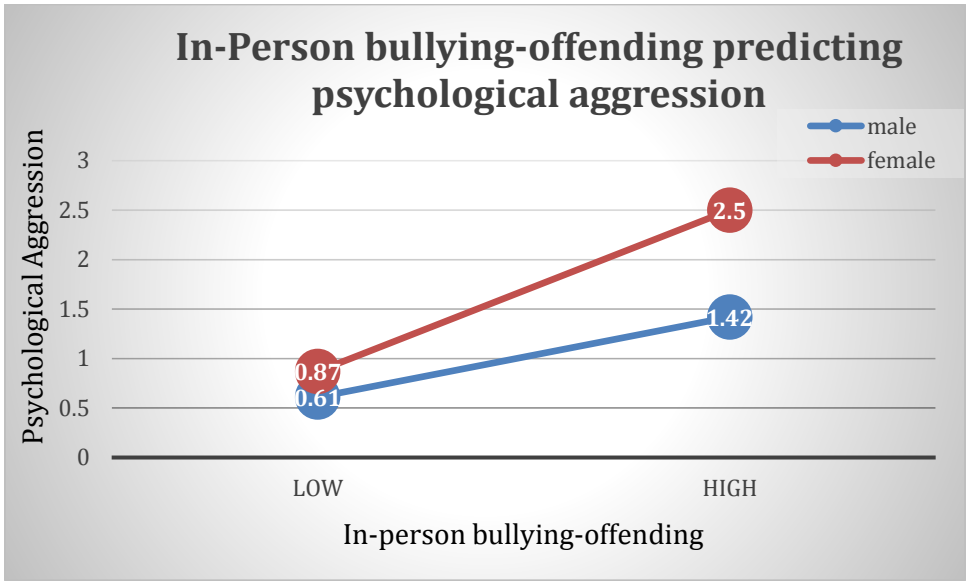


Figure 3.
Interaction effect of cyberbullying-offending and gender on psychological aggression.

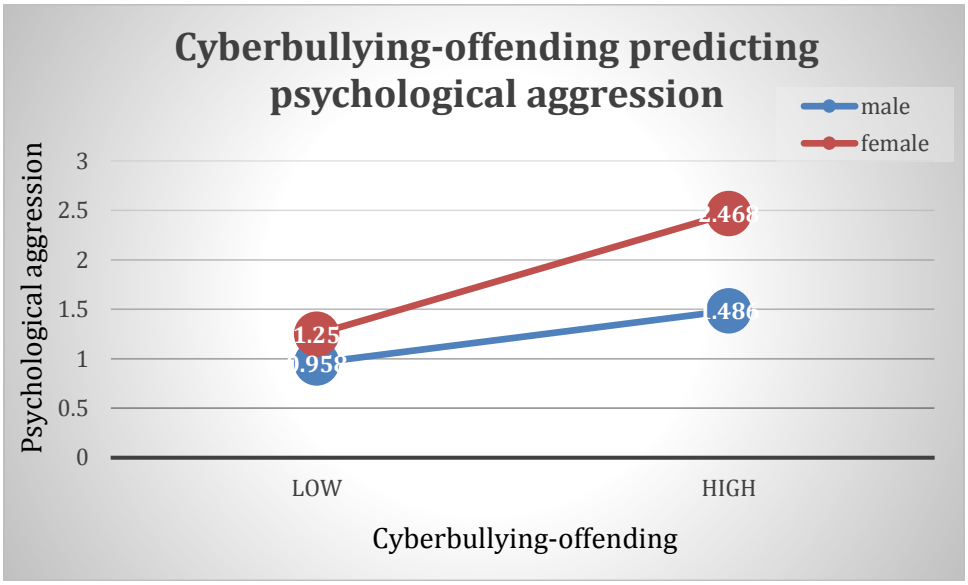
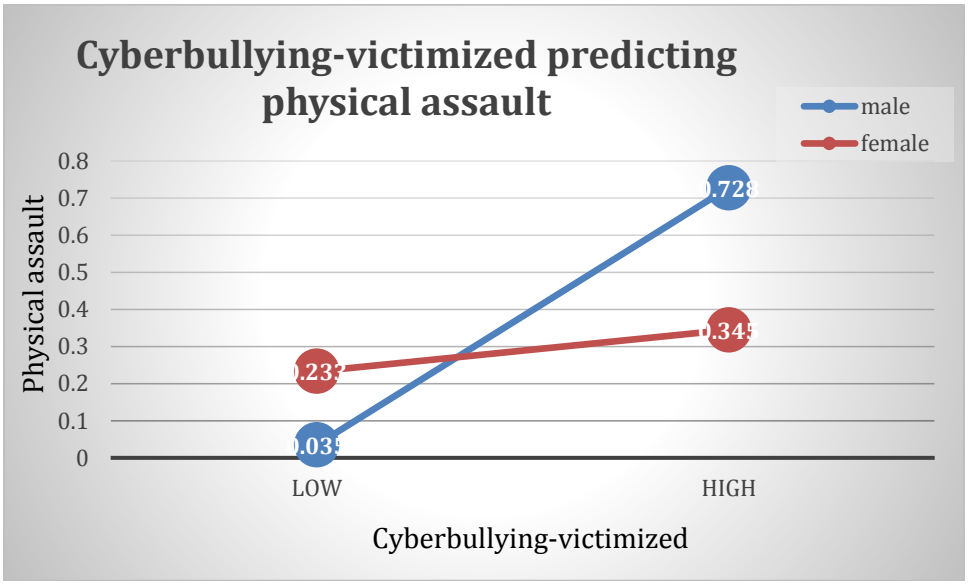


Figure 4.
Interaction effect of cyberbullying-victimized and gender on physical assault.



APPENDIX A. BASIC BACKGROUND INFORMATION

1. What is your age? _____
2. What is your gender?

   a. Male b. Female

3. Mother's highest level of education:

   a. Some high school
   b. High school diploma
   c. Some college
   d. College degree
   e. Some graduate school
   f. Graduate degree

4. Father's highest level of education:

   a. Some high school
   b. High school diploma
   c. Some college
   d. College degree
   e. Some graduate school
   f. Graduate degree

5. What is your current year in college?

   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. Other (please specify) _____

6. What is your major? (if not yet declared, answer "undeclared")

   _____

7. What is your current marital status?

   a. Single, never married
   b. Married
   c. Divorced/Separated/Widowed
   d. Other (please specify) _____

8. What is your family's average annual household income?

   a. Under $10,000
   b. $10,000-$29,999
   c. $30,000-$49,999
   d. $50,000-$69,999
   e. $70,000-$89,999
   f. $90,000 & above

9. What best describes your race/ethnicity?

   a. European American/Caucasian
   b. Hispanic/Latino
   c. African American/Black
   d. Native American/Alaskan Native
   e. Pacific Islander
   f. Asian/Asian-American
   g. Middle Eastern
   h. Multi-racial/multi-ethnic
   i. Other (please specify) _____

10. What best describes your sexual orientation?
    a. Heterosexual
    b. Bisexual
    c. Gay/Lesbian
    d. Other (please specify) _____

11. At the present time, what is your religious preference?
a. Catholic or Roman Catholic (Christian)
b. Protestant or Non-denominational (Christian)
c. Jewish
d. Muslim
e. Buddhist
f. Hindu
g. No religious preference
h. Agnostic (not sure if there is a God)
i. Atheist (there is no God)
j. Other (please specify) _____

12. Which of the statements best describes you?
a. I am spiritual and religious
b. I am spiritual but not religious
c. I am religious but not spiritual
d. I am neither spiritual nor religious

13. Who is your primary caregiver during early childhood (before 10 years old)? _____

APPENDIX B. DATING EXPERIENCES

1. Please select the statement that best applies to you.

a. I have not yet begun dating
b. I have begun dating and had romantic partner(s); but I currently do not have romantic partner(s).
c. I have begun dating and I currently have romantic partner(s).

(Note: If the participant select A, he/she will skip the following three questions.)

2. Please check the boxes below that describe the kind of dating relationships you are currently experiencing, or if you are not currently experiencing, the most recent dating experience you had:

a. Going out in male/female groups
b. Dating different people
c. Dating one person without any definite commitment
d. Dating one person exclusively
e. Engaged
f. Married

3. Please answer this question based on your current romantic partner (and if not available, the most recent romantic partner): How long have/had you been dating/going out? _____ months

4. How old is your current romantic partner? Or if you don't currently have a romantic partner, how old is your most recent romantic partner? _____ years

APPENDIX C. PARENTING CAREGIVING STYLE

Parental Caregiving Style (Hazan and Shaver, 1986; in Collins & Read, 1990)-Example for mother/mother figure version

These questions are concerned with your experiences in your relationship with your mother or mother figure (father or father figure) during early childhood ***(before age 10)****. Take a moment to think about these experiences and answer the following questions with her (him) in mind.*

Please rate each of the relationship styles above to indicate how well or poorly each description corresponds to your childhood relationship style with your mother/mother figure.

-3	-2	-1	0	1	2	3
Not at all like my mother/mother figure						Very much like my mother/mother figure

1. She was generally warm and responsive.
2. She was fairly cold and distant, or rejecting, not very responsive.
3. It's possible that she would just as soon not have had me.
4. She definitely loved me but didn't always show it in the best way.
5. Our relationship was almost always comfortable, and I have no major reservations or complaints about it.
6. I wasn't her highest priority; her concerns were often elsewhere.
7. She was noticeably inconsistent in her reactions to me, sometimes warm and sometimes not.
8. She had her own agendas which sometimes got in the way of her receptiveness and responsiveness to my needs.
9. She was good at knowing when to be supportive and when to let me operate on my own;

APPENDIX D. ADOLESCENT PEER RELATIONS INSTRUMENT

How often have YOU done any of the following things to a PEER (or PEERS)? Click the option that is closest to your answer.
Over the past 5 years I…

	Never	**Seldom**	**Sometime**	**Fairly Often**	**Often**	**Very Often**
Teased them by saying things to them.	( )	( )	( )	( )	( )	( )
Pushed or shoved a peer.	( )	( )	( )	( )	( )	( )
Made rude remarks at a peer.	( )	( )	( )	( )	( )	( )
Got my friends to turn against a peer.	( )	( )	( )	( )	( )	( )
Made jokes about a peer.	( )	( )	( )	( )	( )	( )
Crashed into a peer on purpose as they walked by.	( )	( )	( )	( )	( )	( )
Picked on a peer by swearing at them.	( )	( )	( )	( )	( )	( )
Told my friends things about a peer to get them into trouble.	( )	( )	( )	( )	( )	( )
Got into a physical fight with a peer because I didn't like them.	( )	( )	( )	( )	( )	( )
Said things about their looks they didn't like.	( )	( )	( )	( )	( )	( )
Got other students to start a rumor about a peer.	( )	( )	( )	( )	( )	( )
Slapped or punched a peer.	( )	( )	( )	( )	( )	( )
Got others to ignore a peer.	( )	( )	( )	( )	( )	( )
Made fun of a peer by calling them names.	( )	( )	( )	( )	( )	( )
Threw something at a peer to hit them.	( )	( )	( )	( )	( )	( )
Threatened to physically hurt or harm a peer.	( )	( )	( )	( )	( )	( )
Left them out of activities or games on purpose.	( )	( )	( )	( )	( )	( )
Kept a peer away from me by giving them mean looks.	( )	( )	( )	( )	( )	( )

How often has a PEER (or PEERS) done the following things to YOU? Click the option that is closest to your answer.
Over the past 5 years. . .

	Never	**Seldom**	**Sometime**	**Fairly Often**	**Often**	**Very Often**
I was teased by peers saying things to me.	( )	( )	( )	( )	( )	( )
I was pushed or shoved.	( )	( )	( )	( )	( )	( )
A peer wouldn't be friends with me because other people didn't like me.	( )	( )	( )	( )	( )	( )
A peer made rude remarks at me.	( )	( )	( )	( )	( )	( )
I was hit or kicked hard.	( )	( )	( )	( )	( )	( )
A peer ignored me when they were with their friends.	( )	( )	( )	( )	( )	( )
Jokes were made up about me.	( )	( )	( )	( )	( )	( )
Peers crashed into me on purpose as they walked by.	( )	( )	( )	( )	( )	( )
A peer got their friends to turn against me.	( )	( )	( )	( )	( )	( )
My property was damaged on purpose.	( )	( )	( )	( )	( )	( )
Things were said about my looks I didn't like.	( )	( )	( )	( )	( )	( )
I wasn't invited to a peer's place because other people didn't like me.	( )	( )	( )	( )	( )	( )
I was ridiculed by peers saying things to me.	( )	( )	( )	( )	( )	( )
A peer got others to start a rumor about me.	( )	( )	( )	( )	( )	( )
Something was thrown at me to hit me.	( )	( )	( )	( )	( )	( )
I was threatened to be physically hurt or harmed.	( )	( )	( )	( )	( )	( )
I was left out of activities, games on purpose.	( )	( )	( )	( )	( )	( )
I was called names I didn't like.	( )	( )	( )	( )	( )	( )

APPENDIX E. CYBERBULLYING AND ONLINE AGGRESSION SURVEY

How often in the past 5 years have you experienced the following?	**Never**	**Seldom**	**Sometime**	**Fairly Often**	**Often**	**Very Often**	**Not Applicable**
1. In the past 5 years, have you been made fun of in a chat room?	( )	( )	( )	( )	( )	( )	( )
2. In the past 5 years, have you received an email from someone you know that made you really mad?	( )	( )	( )	( )	( )	( )	( )
3. In the past 5 years, have you received an email from someone you didn't know that made you really mad? This does not include "spam" mail.	( )	( )	( )	( )	( )	( )	( )
4. In the past 5 years, has someone posted something on your My Space/Facebook page/Twitter, or other social media, that made you upset or uncomfortable?	( )	( )	( )	( )	( )	( )	( )
5. In the past 5 years, has someone posted something on another web page that made you upset or uncomfortable?	( )	( )	( )	( )	( )	( )	( )
6. In the past 5 years, have you received an instant message that made you upset or uncomfortable?	( )	( )	( )	( )	( )	( )	( )
7. In the past 5 years, have your parents talked to you about being safe on the computer?	( )	( )	( )	( )	( )	( )	( )
8. In the past 5 years, has a teacher talked to you about being safe on the computer?	( )	( )	( )	( )	( )	( )	( )
9. In the past 5 years, have you been bullied or picked on by another person while online?	( )	( )	( )	( )	( )	( )	( )
10. In the past 5 years, have you been afraid to go on the computer?	( )	( )	( )	( )	( )	( )	( )
11. In the past 5 years, has anyone posted anything about you online that you didn't want others to see?	( )	( )	( )	( )	( )	( )	( )
12. In the past 5 years, has anyone emailed or text messaged you and asked questions about sex that made you uncomfortable?	( )	( )	( )	( )	( )	( )	( )

How often in the past 5 years have you done the following?	**Never**	**Seldom**	**Sometime**	**Fairly Often**	**Often**	**Very Often**	**Not Applicable**
13. In the past 5 years, have you lied about your age while online?	( )	( )	( )	( )	( )	( )	( )
14. In the past 5 years, have you posted something online about someone else to make others laugh?	( )	( )	( )	( )	( )	( )	( )
15. In the past 5 years, have you sent someone a computer text message to make them angry or to make fun of them?	( )	( )	( )	( )	( )	( )	( )
16. In the past 5 years, have you sent someone an email to make them angry or to make fun of them?	( )	( )	( )	( )	( )	( )	( )
17. In the past 5 years, have you posted something on someone's Twitter, Facebook, or Instagram page, or other social media, to make them angry or to make fun of them?	( )	( )	( )	( )	( )	( )	( )
18. In the past 5 years, have you taken a picture of someone and posted it online without their permission?	( )	( )	( )	( )	( )	( )	( )

***Cyberbullying* is when someone repeatedly makes fun of another person online or repeatedly picks on another person through email or text message or when someone posts something online about another person that they don't like.**

19. *In my entire life*, I have cyberbullied others:
a. never b. seldom c. sometime d. fairly often e. often f. very often

20. *In the past 5 years,* I have cyberbullied others:
a. never b. seldom c. sometime d. fairly often e. often f. very often

21. *In my entire life*, I have been cyberbullied:
a. never b. seldom c. sometime d. fairly often e. often f. very often

22. *In the past 5 years,* I have been cyberbullied:
a. never b. seldom c. sometime d. fairly often e. often f. very often

APPENDIX F. THE REVISED THREE-CATEGORY MEASURE

These questions are concerned with your current or most recent experiences in romantic love relationships. Take a moment to think about these experiences and answer the following questions with them in mind. (Note: If you have never been dating, please answer these questions with your expected future romantic relationships in mind).

Now please rate each of the sentence below to indicate how well or poorly each description corresponds to your general relationship style. (Note: The terms "close" and "intimate" refer to psychological or emotional closeness, not necessarily to sexual intimacy.)

-3	-2	-1	0	1	2	3
Disagree Strongly			Neutral/ Mixed			Agree Strongly

1. I am somewhat uncomfortable being close to my romantic partner(s).
2. I don't worry about being abandoned or about my romantic partner(s) getting too close to me.
3. I find it relatively easy to get close to my romantic partner(s).
4. I find it difficult to trust my romantic partner(s) completely, and difficult to allow myself to depend on them.
5. I want to get very close to my romantic partner(s), and this sometimes scares them away.
6. I often worry that my romantic partner(s) doesn't really love me or won't want to stay with me.
7. I am nervous when my romantic partner(s) gets too close, and often; my romantic partner(s) want me to be more intimate than I feel comfortable being.
8. I am comfortable depending on my romantic partner(s) and having them depend on me.
9. I find that my romantic partner(s) are reluctant to get as close as I would like.

APPENDIX G. THE EXPERIENCES IN CLOSE RELATIONSHIPS-REVISED QUESTIONNAIRE

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience romantic relationships, not just in what is happening in a current or recent romantic relationship. Respond to each statement by indicating how much you agree or disagree with the statement, using the following rating scale. *(Note: If you have never been dating, please answer these questions with your expected future romantic relationships in mind)*

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

1. I'm afraid that I will lose my partner's love.
2. I often worry that my partner will not want to stay with me.
3. I often worry that my partner doesn't really love me.
4. I worry that romantic partners won't care about me as much as I care about them.
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
9. I rarely worry about my partner leaving me.
10. My romantic partner makes me doubt myself.
11. I do not often worry about being abandoned.
12. I find that my partner(s) don't want to get as close as I would like.
13. Sometimes romantic partners change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from my partner.
17. I worry that I won't measure up to other people.
18. My partner only seems to notice me when I'm angry.
19. I prefer not to show a partner how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with my partner.
21. I find it difficult to allow myself to depend on romantic partners.
22. I am very comfortable being close to romantic partners.
23. I don't feel comfortable opening up to romantic partners.
24. I prefer not to be too close to romantic partners.
25. I get uncomfortable when a romantic partner wants to be very close.
26. I find it relatively easy to get close to my partner.
27. It's not difficult for me to get close to my partner.
28. I usually discuss my problems and concerns with my partner.
29. It helps to turn to my romantic partner in times of need.
30. I tell my partner just about everything.
31. I talk things over with my partner.
32. I am nervous when partners get too close to me.
33. I feel comfortable depending on romantic partners.
34. I find it easy to depend on romantic partners.
35. It's easy for me to be affectionate with my partner.
36. My partner really understands me and my needs.

APPENDIX H. DYADIC TRUST SCALE

Please choose the number for each item which best describes your current romantic partner (if not available, your most recent romantic partner). *(Note: If you have never been dating, please answer these questions based on your expected future romantic partner)*

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

1. My partner is primarily interested in his (her) own welfare.

2. There are times when my partner cannot be trusted.

3. My partner is perfectly honest and truthful with me.

4. I feel that I can trust my partner completely.

5. My partner is truly sincere in his (her) promises.

6. I feel that my partner does not show me enough consideration.

7. My partner treats me fairly and justly.

8. I feel that my partner can be counted on to help me.

APPENDIX I. RELATIONSHIP ASSESSMENT SCALE

Please answer the following questions based on your current romantic relationship, or if not available, your most recent romantic relationship. *(Note: If you have never been dating, please answer these questions with your expected future romantic relationships in mind)*. Please choose the number for each item which best answers that item for you:

1. How well does your partner meet your needs?

1	2	3	4	5
Poorly		Average		Extremely well

2. In general, how satisfied are you with your relationship?

1	2	3	4	5
Unsatisfied		Average		Extremely satisfied

3. How good is your relationship compared to most?

1	2	3	4	5
Poor		Average		Excellent

4. How often do you wish you hadn't gotten in this relationship?

1	2	3	4	5
Never		Average		Very Often

5. To what extent has your relationship met your original expectations?

1	2	3	4	5
Hardly at all		Average		Completely

6. How much do you love your partner?

1	2	3	4	5
Not much		Average		Very much

7. How many problems are there in your relationship?

1	2	3	4	5
Very few		Average		Very many

APPENDIX J. THE CTS2S SHORT FORM

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please mark how many times you did each to these things in the past year, and how many times your partner did them in the past year. If you or your partner did not do one of these things in the past year, but it happened before that, mark a "1" on your answer sheet for that question. If it never happened, mark an "0" on your answer sheet.

How often did this happen?

0 = This has never happened
1 = Not in the past year, but it did happen before
2 = Once in the past year
3 = Twice in the past year
4 = 3-5 times in the past year
5 = Sometimes (6-10 times in the past year)
6 = Fairly Often (11-20 times in the past year)
7 = Very Often (More than 20 times in the past year)

1. I explained my side or suggested a compromise for a disagreement with my partner.	0	1	2	3	4	5	6	7
2. My partner explained his or her side or suggested a compromise for a disagreement with me.	0	1	2	3	4	5	6	7
3. I insulted or swore or shouted or yelled at my partner.	0	1	2	3	4	5	6	7
4. My partner insulted or swore or shouted or yelled at me.	0	1	2	3	4	5	6	7
5. I had a sprain, bruise, or small cut, or felt pain the next day because of a fight with my partner.	0	1	2	3	4	5	6	7
6. My partner had a sprain, bruise, or small cut or felt pain the next day because of a fight with me.	0	1	2	3	4	5	6	7
7. I showed respect for, or showed that I cared about my partner's feelings about an issue we disagreed on.	0	1	2	3	4	5	6	7
8. My partner showed respect for, or showed that he or she cared about my feelings about an issue we disagreed on.	0	1	2	3	4	5	6	7
9. I pushed, shoved, or slapped my partner.	0	1	2	3	4	5	6	7
10. My partner pushed, shoved, or slapped me.	0	1	2	3	4	5	6	7
11. I punched or kicked or beat-up my partner.	0	1	2	3	4	5	6	7
12. My partner punched or kicked or beat me up.	0	1	2	3	4	5	6	7
13. I destroyed something belonging to my partner or threatened to hit my partner.	0	1	2	3	4	5	6	7
14. My partner destroyed something belonging to me or threatened to hit me.	0	1	2	3	4	5	6	7
15. I went see a doctor (M.D.) or needed to see a doctor because of a fight with my partner.	0	1	2	3	4	5	6	7

16. My partner went see a doctor (M.D.) or needed to see a doctor because of a fight with me.	0	1	2	3	4	5	6	7
17. I used force (like hitting, holding down, or using a weapon) to make my partner have sex.	0	1	2	3	4	5	6	7
18. My partner used force (like hitting, holding down, or using a weapon) to make me have sex.	0	1	2	3	4	5	6	7
19. I insisted on sex when my partner did not want to or insisted on sex without a condom (but did not use physical force).	0	1	2	3	4	5	6	7
20. My partner insisted on sex when I did not want to or insisted on sex without a condom (but did not use physical force).	0	1	2	3	4	5	6	7

APPENDIX K. REJECTION SENSITIVITY QUESTIONNAIRE

Each of the items below describes things college students sometimes ask of other people. Please imagine that you are in each situation. You will be asked to answer the following questions:

1) How concerned or anxious would you be about how the other person would respond?

2) How do you think the other person would be likely to respond?

1. You ask someone in class if you can borrow his/her notes.

How concerned or anxious would you be over whether or not the person would want to lend you his/her notes?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that the person would willingly give me his/her notes.	very unlikely 1 2 3 4 5 6	very likely

2. You ask your boyfriend/girlfriend to move in with you.

How concerned or anxious would you be over whether or not the person would want to move in with you?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that he/she would want to move in with me.	very unlikely 1 2 3 4 5 6	very likely

3. You ask your parents for help in deciding what programs to apply to.

How concerned or anxious would you be over whether or not your parents would want to help you?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that they would want to help me.	very unlikely 1 2 3 4 5 6	very likely

4. You ask someone you don't know well out on a date.

How concerned or anxious would you be over whether or not the person would want to go out with you?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that the person would want to go out with me.	very unlikely 1 2 3 4 5 6	very likely

5. Your boyfriend/girlfriend has plans to go out with friends tonight, but you really want to spend the evening with him/her, and you tell him/her so.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would decide to stay in?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that the person would willingly choose to stay in.	very unlikely 1 2 3 4 5 6	very likely

6. You ask your parents for extra money to cover living expenses.

How concerned or anxious would you be over whether or not your parents would help you out?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that my parents would not mind helping me out.	very unlikely 1 2 3 4 5 6	very likely

7. After class, you tell your professor that you have been having some trouble with a section of the course and ask if he/she can give you some extra help.

How concerned or anxious would you be over whether or not your professor would want to help you out?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect that my professor would want to help me out.	very unlikely	1	2	3	4	5	6 very likely

8. You approach a close friend to talk after doing or saying something that seriously upset him/her.

How concerned or anxious would you be over whether or not your friend would want to talk with you?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect that he/she would want to talk with me to try to work things out.	very unlikely	1	2	3	4	5	6 very likely

9. You ask someone in one of your classes to coffee.

How concerned or anxious would you be over whether or not the person would want to go?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect that the person would want to go with me.	very unlikely	1	2	3	4	5	6 very likely

10. After graduation, you can't find a job and ask your parents if you can live at home for a while.

How concerned or anxious would you be over whether or not your parents would want you to come home?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect I would be welcome at home.	very unlikely	1	2	3	4	5	6 very likely

11. You ask your friend to go on a vacation with you over Spring Break.

How concerned or anxious would you be over whether or not your friend would want to go with you?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect that he/she would want to go with me.	very unlikely	1	2	3	4	5	6 very likely

12. You call your boyfriend/girlfriend after a bitter argument and tell him/her you want to see him/her.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would want to see you?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect that he/she would want to see me.	very unlikely	1	2	3	4	5	6 very likely

13. You ask a friend if you can borrow something of his/hers.

How concerned or anxious would you be over whether or not your friend would want to loan it to you?	very unconcerned	1	2	3	4	5	6 very concerned
I would expect that he/she would willingly loan me it.	very unlikely	1	2	3	4	5	6 very likely

14. You ask your parents to come to an occasion important to you.

How concerned or anxious would you be over whether or not your parents would want to come?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that my parents would want to come.	very unlikely 1 2 3 4 5 6	very likely

15. You ask a friend to do you a big favor.

How concerned or anxious would you be over whether or not your friend would do this favor?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that he/she would willingly do this favor for me.	very unlikely 1 2 3 4 5 6	very likely

16. You ask your boyfriend/girlfriend if he/she really loves you.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would say yes?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that he/she would answer yes sincerely.	very unlikely 1 2 3 4 5 6	very likely

17. You go to a party and notice someone on the other side of the room and then you ask them to dance.

How concerned or anxious would you be over whether or not the person would want to dance with you?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that he/she would want to dance with me.	very unlikely 1 2 3 4 5 6	very likely

18. You ask your boyfriend/girlfriend to come home to meet your parents.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would want to meet your parents?	very unconcerned 1 2 3 4 5 6	very concerned
I would expect that he/she would want to meet my parents.	very unlikely 1 2 3 4 5 6	very likely