Friendship Security and Intimacy Moderate the Stability of Anxiety During Early

Adolescence

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ABSTRACT

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Objective: The goal of this study was to identify whether friendship quality could serve as a protective factor for anxious preadolescents longitudinally. It was expected that by having high levels of intimacy and security within the friendships of anxious youth feelings of anxiety would decrease to a greater extent than those with low levels of said friendship factors. **Method:** Preadolescents (N = 430) in grades 5 and 6 (ages 10-13) were tested within their classrooms. Two time points were used in this study, which were approximately six months apart. Measures of peer-rated anxiety, self-rated anxiety, and friendship quality (i.e., the Network of Relationships Inventory) were administered and analyzed via confirmatory factor analyses (CFA). **Results:** Structural equation modeling (SEM) was used to test the hypotheses of this study. Results demonstrated that both intimacy and security within close relationships could predict a significant decrease in anxiety in the self-rated anxiety measures, with security having a stronger effect than intimacy. Conversely, preadolescents who were considered anxious by their peers were perceived as anxious at the second time point even if they possessed intimate and secure friendships. Gender differences were not found. **Conclusions:** The findings of this study suggest that anxious preadolescents benefit from having intimate and secure close

friendships given that they are found to be significantly less anxious over time compared with their anxious peers without such relationships. In contrast, being anxious seems to have a lasting impression since peer-rated anxious individuals were not perceived as being less anxious over time, despite their reduced feelings of anxiety. A similar effect was discovered for both boys and girls.

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Anxiety disorders are highly prevalent at a rate of 12% within Canada (Public Health Agency of Canada, 2002). This makes anxiety disorders as a whole the most common form of mental illness in the country. It has long been postulated the desire to affiliate with others is related to anxiety reduction via experiments within social psychology (Schachter, 1959). Anxiety disorders typically arise between childhood and adolescence (American Psychiatric Association, 2000) and research shows that negative peer experiences such as low acceptance and victimization predict increases in anxiety (Biggs, Nelson, & Sampilo, 2010). Sullivan (1953) wrote that close friendships during preadolescence serve to diminish and free individuals from anxiety. Sullivan believed that preadolescence is a critical period for the development of personality and as such individuals who might be at risk for psychological illness can be saved from serious disorders. Despite Sullivan's observations and the findings presented here on anxiety in peer relationships, an emphasis is often placed upon social anxiety in youth within the research literature (see Kingery, Erdley, Marshall, Whitaker, & Reuter (2010) for a review) with little emphasis on the preadolescence period of development.

The importance of social experiences for overall well-being during preadolescence has been well documented (Adams, Santo, & Bukowski, 2011; Bukowski, Buhrmester, & Underwood, 2011; Biggs, Nelson, & Sampilo, 2010; Rubin, Fredstrom, & Bowker, 2008; Bukowski & Adams, 2005; Bukowski, Gauze, Hoza, & Newcomb, 1991; Bukowski & Hoza, 1989). Peer relationships can threaten well-being via experiences of relational (i.e., indirect) and physical (i.e., direct) victimization (Velásquez, Santo, Saldarriaga, López, & Bukowski, 2010; Adams & Bukowski, 2008). Conversely, positive peer relations can enhance well-being directly

and also buffer threats to well-being. For example, the buffering potential of having a best friend present during a difficult event has also been shown to reduce negative effects of the experience (Adams, Santo, & Bukowski, 2011; Gauze, Bukowski, Aquan-Assee, & Sippola, 1996). Adams et al. (2011) demonstrated that stress, as measured by the hormone cortisol, was reduced for children who experienced a negative event while having a best friend present. Similarly, possessing high quality friendships offers protective effects against anxiety disorders in the long-term for victims of serious abuse, such as childhood sexual abuse (Adams & Bukowski, 2007).

Specific friendship qualities that have been identified as key components of high quality friendships for preadolescents are security and intimacy (see Bukowski, Hoza & Boivin, 1994). In the current study we seek to understand whether anxious children who possess high quality friendships – secure and intimate friendships – show greater positive signs of adjustment than anxious children with lower quality friendships. Anxiety will be investigated in community (i.e., subclinical) samples to capture information pertaining to large numbers of youth. Since anxiety is fundamentally an internal event, self-reports of anxiety will be used in this study. Additionally, peer-reports of anxiety will also be administered in order to determine whether peers are aware of the anxiety of others and if they can detect change over time. The introduction that follows elaborates on the importance of peer relationships for anxious youth.

Anxiety and Peer Relationships

Detrimental Effects of Anxiety on Peer Relationships

Overall, anxious children have been shown to experience a host of poor friendship qualities. Socially anxious adolescents typically have fewer friends, are less popular than others, and form friendships with other socially anxious individuals, which, over time, promote their socially anxious tendencies (Van Zalk, Van Zalk, Kerr, & Stattin, 2011). Even in close

interactions with friends, anxious and withdrawn preadolescents have a tendency to be unassertive and possess low levels of positive affect (Schneider, 2009). Researchers have also reported that anxious youth are more likely than non-anxious youth to be victimized in both clinical samples of children and adolescents (Crawford & Manassis, 2011) and community samples of adolescents (Erath, Flanagan, & Bierman, 2007; Siegel, La Greca, & Harrison, 2009). Additionally, peer acceptance is also notably lower for socially anxious children (Greco & Morris, 2005) and early adolescents (Erath, Flanagan, & Bierman, 2007). Similarly, adolescents who are highly socially anxious feel that they are less supported and accepted by their peers and socially anxious girls have fewer best friends (La Greca & Lopez, 1998). In line with these findings, Crawford and Manassis (2011) discovered that anxious children have greater social difficulties and are thus placed at risk for bullying by having low quality friendships.

It has also been demonstrated that when being evaluated for giving a speech by unknown peers, adolescents with high levels of social anxiety were perceived by raters to be less similar than themselves despite actual likenesses and were at increased risk of rejection (Blöte, Bokhorst, Miers, & Westenberg, 2012). Specifically, adolescents who were highly socially anxious were rated as less desirable by observers. Moreover, social anxiety levels appear to be higher for youth who negatively appraise social situations (Flanagan, Erath, & Bierman, 2008). Importantly, social anxiety has been successfully predicted by friendships that are high on negative qualities, such as exclusion (La Greca & Harrison, 2005). Accordingly, some anxious preadolescents may have more positive peer experiences than those experienced by the typical preadolescent girl or boy.

Beneficial Effects of Peer Relationships on Anxiety

Although anxiety can be detrimental to peer relationships, such friendships have been shown to act as a buffer for feelings of anxiety in youth. Although this body of research shows that anxious children have friendships characterized by negative qualities, one study found that symptoms of anxiety did not predict an increase in friendship problems (Rose, Carlson, Luebbe, Schwartz-Mette, Smith, & Swenson, 2011). In fact, Rose and colleagues discovered evidence for positive effects of friendship for anxious youth and proposed that these relationships might actually help them reduce their anxiety. It is important to recognize that on each of these effects there is much variability. Whereas preadolescents who are high in anxiety tend to have problematic experiences with peers, these effects are stronger for some children than for others.

For instance, social anxiety has been found to decrease in community samples of adolescents where positive friendship qualities are present, which indicates that friendships may possess protective characteristics (La Greca & Harrison, 2005). Similarly, friendships have been shown to offer a defense against feelings of anxiety due to victimization in female children in particular (Schmidt & Bagwell, 2007). Additionally, researchers have found that lower levels of social anxiety are present in youth who believe that they are well liked by their peers (Festa & Ginsburg, 2011). Festa and Ginsburg also discovered that levels of social anxiety were lower for children who received validation within their friendships. Erath, Flanagan, Bierman, and Tu (2010) found that psychosocial maladjustment is attenuated for socially anxious early adolescents by possessing close mutual friendships. Particularly, early adolescents with high levels of social anxiety were found to be less victimized and feel less lonely if they had a greater amount of close friendships. Of specific importance, socially anxious boys in this study were especially affected by close mutual friendships, where levels of victimization were found to

decreased for youth with more friends. In the same vein, one recent study discovered that possessing high quality friendships was protective for children diagnosed with an anxiety disorder who were in treatment (Baker & Hudson, 2013). A noteworthy finding was that children with high friendship quality were more likely to have recovered from their anxiety disorder six months later than those with lower friendship quality. Taken together, these findings illustrate the importance of positive peer interactions as a powerful moderator of the continuity of anxiety.

Peer Relationships and Intimacy

Sullivan (1953) noted that preadolescence is a time where individuals begin to care for the needs of others and form important connections with their friends where interpersonal intimacy is present. Explicitly, Sullivan stated that close peer friendships form with particular individuals of the same sex during preadolescence where people develop an interest in what is important to their close friends (as opposed to simply satisfying their own needs). The importance of intimacy as one transitions from childhood to adolescence has also been noted more recently (Bukowski, Simard, Dubois, & López, 2011). In line with research on the detrimental effects of anxiety on friendships, La Greca and Lopez (1998) demonstrated that socially anxious adolescent girls possess less intimacy in their friendships (La Greca & Lopez, 1998). One study discovered that low intimacy in adolescent friendships results in increased levels of social anxiety (Vernberg, Abwender, Ewell, & Beery, 1992). However, Festa and Ginsburg (2011) found that intimacy did not predict a reduction in social anxiety in children. Despite this result, ratings were provided by an independent evaluator rather than via self-reports, which would be valuable in order to gather information on a subjective event (i.e., feeling anxious). Clearly there is evidence that intimacy is a key factor within peer relationships that can be disrupted by several factors, anxiety being one. A particular focus has been placed

upon adolescent friendships in regards to intimacy given that emotional support becomes more complex during this developmental period (e.g., Buhrmester, 1990). Yet there is a lack of evidence for the impact of intimacy on anxiety within the relationships of children, although the forms of intimacy provided within their friendships may not be as sophisticated as those of adolescents. In other words, despite the different form of intimacy that takes place in childhood compared to adolescence, it should remain a valuable protective factor particularly for anxious youth.

Peer Relationships and Security

Sullivan (1953) also noted that, during preadolescence, individuals seek mutual forms of security within their close friendships. He observed that relationship "durability" is of particular importance during this developmental period. In one recent study on security, when asked about their friendships, physically aggressive children and their friends perceived the relationship as low in security (Cillessen, Jiang, West, & Laszkowski, 2005). These authors also found that low security was identified in friendships of adolescents who rated themselves as relationally aggressive. Prosocial adolescents and their friends, on the other hand, rated their relationships as high in security. Similarly, Lieberman, Doyle, and Markiewicz (1999) discovered that childhood attachment patterns with parental figures impact friendship quality (e.g., security) within friendships. Given the effects security can provide to children, it is worth investigating whether friendships high on security buffer children from feelings of anxiety.

Gender Differences

There are several gender differences present in the relationships of boys and girls. Namely, the friendships female children possess are more highly emotionally connected and engaged (see Rose & Rudolph, 2006 for a review). Also, both child and adolescent girls have

been shown to have more friends (Urberg, Degirmencioglu, Tolson, & Halliday-Scher, 1995; Rose et al., 2011) and greater friendship quality than boys (Rose & Rudolph, 2006; Rose et al., 2011). Yet socially anxious adolescent girls have fewer best friends and their best friendships are lower in support, intimacy, and companionship, which appears not to be the case for socially anxious adolescent boys (La Greca & Lopez, 1998). Similarly, greater friendship intimacy has long been noted within the relationships of adolescent girls (see Berndt, 1982 for a review). Moreover, the risk for social anxiety might increase when friendships possess negative qualities for female children only (Greco & Morris, 2005). In fact, Rose and Rudolph (2006) propose that girls may be protected from emotional distress since they place a greater emphasis on emotional expression within their relationships than do boys.

Summary and Research Goals

Based on the theoretical and empirical background outlined above, the current study uses a short-term longitudinal design to assess the moderating effect of security and intimacy on the stability of anxiety across a four-month period. As the literature reveals, it is not well understood how possessing the friendship qualities of intimacy and security within friendships can affect general feelings of anxiety in preadolescent populations. In fact, a great deal of the existing literature on anxiety and friendship quality centers upon the developmental period of adolescence. Lastly, there have been few literature reviews focused on understanding of how security and intimacy can impact children over time (rather than cross-sectionally).

Thus, it is the goal of the present study to assess whether these more positive peer experiences, such as intimacy and security, minimize the experience of anxiety. Precisely, this study investigates whether anxious children with high quality friendships show fewer signs of maladjustment and greater signs of positive adjustment compared to anxious children with lower

quality friendships. Both peer and self-report questionnaires were administered to capture increasingly rich information. Explicitly, the current study examined the following three hypotheses:

Hypothesis 1: Friendship Quality and Self- Rated Anxiety

The first hypothesis is that children who are anxious and that have intimate and/or secure friendships (i.e., have high quality friendships) at time 1 (T1) will have lower self-rated feelings of anxiety at time 2 (T2) than children who have friendships at T1 that are lower in security and intimacy. Specifically, high quality friendships are believed to have a protective effect and will therefore decrease feelings of anxiety in anxious youth over time.

Hypothesis 2: Friendship Quality and Peer- Rated Anxiety

The second hypothesis is that this protective effect will be observed more strongly with the self-report measure of anxiety than with a peer-report index of anxiety. This hypothesis is based on the premise that anxiety is difficult to observe directly and therefore peer assessments may not have sufficient validity and sensitivity to detect change over time.

Hypothesis 3: Gender Effects

The third hypothesis is that these effects will be stronger for girls than for boys. This hypothesis is based on the evidence provided above that childhood female friendships are more highly emotionally connected than those of boys. Given the greater prominence and impact of intimate friendships in female youth, it is therefore expected that there will be a larger decrease in feelings of anxiety for girls who possess intimate friendships than for boys. Furthermore, it is expected that these results will extend to friendship security as well.

Method

Participants

Samples in this study were drawn from three English-speaking mixed-sex public schools in Montréal, Québec, Canada. Data were collected from 430 English-speaking participants in total (208 female, 222 male). The children were in grades five (198) and six (232) at the time of testing, with ages ranging from 10 to 13 ($M = 10.87$, $SD = .73$). The data were collected in January and February of 2006 (Time 1; T1) and May 2006 (Time 2; T2) from 19 classrooms at each time. T1 was divided into two separate data collections, which were one week apart. Both the January and February data collections were treated as one time point since they were proximate in time. Given that the participants in this study were minors, an information letter and a parental consent form (see Appendix A and B) were sent home to parents, which were then signed and returned to class indicating whether a parent consented or did not consent to having their child participate in the project. Child assent was also required to go forward with testing if parental consent was given (see Appendix C). A child who did not bring back the consent forms was not permitted to take part in the study, even if they claimed to have obtained such consent.

Procedure

Following the ethical approval of the research study at the university, consent was sought from the school board and principals of the schools involved. There were laboratory members present in the classrooms during the data collections, which took approximately one hour within each classroom. Students completed the questionnaires by paper and pen, which were supplied to them by the researchers. Participants were informed that they could withdraw from the study at any point in time and that there would be no negative consequences of doing such. There were

no inclusion/exclusion criteria in this sample unless individuals withdrew their consent, in which case their data was removed from the study.

After the questionnaires had been completed and collected, the identification number assigned to each student was written on every page of the questionnaire. These forms were then scanned into a laboratory computer at Concordia University to be read and verified with the TELEFORM program, version 6.0 (Cardiff Software Inc., 1991). TELEFORM is a form of software that is used to both create the questionnaires and verify the data once it has been collected. Each item on the questionnaire is identified by the program, and when items are endorsed by participants then TELEFORM codes this information appropriately in numeric form. Item endorsement was indicated by colouring in a box on the sheet with pen, which indicated that the participant had rated an item on a particular scale. This data was then verified by the coordinator of the laboratory to guarantee that the data was properly entered into the database. Missing data was dealt with via imputation in Mplus (Ver. 6; Muthén & Muthén, 2010).

Measures

Self-Assessed Anxiety.

This questionnaire (see Appendix D) asked children what they believe themselves to be like on a Likert scale ranging from 1 (never true) to 5 (always true). These items were administered at both T1 and T2 of the data collection. For this particular study, 3 items of general feelings of anxiety were used in total, including the items "I am nervous or tense", "I worry a lot", and "I get stressed a lot" (Cronbach's α = .75 at T1, Cronbach's α = .76 at T2). Internal consistency around .70 is considered to be adequate, those around .80 are thought of as very good, and .90 or above are generally excellent (Kline, 2009).

Peer-Assessed Anxiety.

This questionnaire asked children what they believe others in their class to be like to be like (see Appendix E). This was administered at both T1 and T2. For this particular study, 3 items of general feelings of anxiety were used in total, including "Someone who is nervous or tense", "Someone who worries a lot", and "Someone who gets stressed a lot" (Cronbach's α = .68 at T1 and Cronbach's α = .76 at T2). It should be noted that children were asked to leave questions blank when certain items did not pertain to any of the individuals within the classroom to ensure accuracy of results. They were also asked to leave their own names blank.

Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985).

The NRI is a 36-item questionnaire used to gain information about the perceptions of the children regarding their relationship with their best friend (see Appendix G). For the purposes of this study, an adaptation of the NRI was implemented at both T1 and T2 with measures regarding intimacy and reliable alliance (i.e., security) within their friendships. Items were scored on a Likert-type scale ranging from 1 (almost never) to 5 (almost always). Intimacy items included "How much do you talk about everything with this person?", "How much do you share your secrets and private feelings with this person?", and "How much do you talk to this person about things that you don't want others to know?" (Cronbach's α = .80 at T1 and Cronbach's α = .83 at T2). Lastly, reliable alliance (i.e., security) items included "How sure are you that this relationship will last no matter what?", "How sure are you that this relationship will last regardless of fights?", and "How sure are you that this relationship will continue in the years to come?" (Cronbach's α = .73 at T1 and Cronbach's α = .78 at T2).

Results

Preliminary Analyses.

  Data Cleaning. Potential biases in the peer assessment values due to classroom size

differences were corrected with the procedure described by Velásquez, Saldarriaga, and

Bukowski (in press). In larger classes an individual may receive higher scores than in those with

fewer students. Yet as the number of potential nominations increases, the likelihood of being

chosen for any particular item decreases. To correct for this bias, the amount of times that a

given child was nominated by peers was calculated. Then an average was created for each

individual by dividing the total nominations by the amount of items. These nomination scores

were calculated for same-sex peers only because children of this age typically engage in

friendships with same-sex peers rather than other-sex peers (Rubin, Fredstrom, & Bowker,

2008). The size of the nomination pool was then calculated by subtracting 1 from same-sex peer

groups (i.e., account for the child themselves). Next, same-sex group sizes were averaged, which

was used to interpret how group sizes deviate. Group deviation scores were then calculated and

rounded to the nearest whole number. A multiple regression was then used to compute expected

bias for varying class sizes by using the size of the deviation and size of the deviation square as

predictors and received scores as the dependent variable. Lastly, the observed scores were

corrected for bias by subtracting the values from the observed score for every child in every class

on every item (see Bukowski, Cillessen & Velásquez, 2012).

  For each of the measures, the scores for outliers were recoded so that their value did not

differ from the group mean by more than three standard deviations. Multiple imputation,

conducted with Mplus version 6 (Muthén & Muthén, 2010), was used to estimate new values for

missing data. In the imputation process 25 complete data files were created with estimates of the

missing values based upon probabilities that were generated given the observed data. Reliability of the data is essentially thought to increase as more possible estimates are created. In this imputation procedure, the 25 new data files were created and then aggregated (i.e., averaged) to produce a single final data set including the imputed scores.

Descriptive Statistics. Means and standard deviations were calculated for the variables used in this study (see Table 1). An assessment of skewness and kurtosis (see Kline, 2009) showed that each of the measures were normally distributed (i.e., the index of skewness was less than three and the measure of kurtosis was less than ten).

Bivariate Correlations Between Variables. All variables for each measure were positively correlated with one another at T1 (see Table 2). Positive correlations of moderate size were found between the self-rated anxiety measures (Pearson correlation coefficients ranging from .48 – .54; all $p < .01$), between the peer-reported anxiety items (Pearson correlation coefficients ranging from .38 – .46, all $p < .01$), between the intimacy items (Pearson correlation coefficients ranging from .50 – .69, all $p < .01$) and between the security items (Pearson correlation coefficients ranging from .40 – .66, all $p < .01$). These positive correlations indicate that the concepts are related but independent since they do not exceed values of 0.85 (Kline, 2009). All variables for each measure were positively correlated with one another at T2 (see Table 3). Again, positive correlations were found between the self-rated anxiety measures (Range = .50 – .56, $p < .01$), the peer-reported anxiety items (Pearson correlation coefficients ranging from .47 – .55, all $p < .01$), the intimacy items (Pearson correlation coefficients ranging from .33 – .78, all $p < .01$) and the security items (Pearson correlation coefficients ranging from .51 – .65, all $p < .01$). Again, these positive correlations indicate that the concepts are related but independent since they do not exceed values of 0.85 (Kline, 2009).

Table 1. Mean Levels of Self- and Peer-Reported Anxiety, Intimacy, & Security

Item	T1 *M (SD)*	T2 *M (SD)*
I am nervous or tense (Self-Rated Anxiety; SA1)	2.18 *(1.07)*	2.33 *(1.08)*
I get stressed a lot (Self-Rated Anxiety; SA2)	2.35 *(1.20)*	2.21 *(1.06)*
I worry a lot (Self-Rated Anxiety; SA3)	2.36 *(1.09)*	2.26 *(1.06)*
Someone who is nervous or tense (Peer-Rated Anxiety; PA1)	.95 *(1.00)*	.62 *(1.00)*
Someone who worries a lot (Peer-Rated Anxiety; PA2)	1.01 *(1.05)*	.75 *(1.13)*
Someone who gets stressed a lot (Peer-Rated Anxiety; PA3)	.83 *(.96)*	.47 *(1.03)*
How much do you talk about everything with this person? (Intimacy; INT1)	3.54 *(1.27)*	3.88 *(1.08)*
How much do you share your secrets and private feelings with this person? (Intimacy; INT2)	3.04 *(1.50)*	3.40 *(1.38)*
How much do you talk to this person about things that you don't want others to know? (Intimacy; INT3)	3.08 *(1.48)*	3.33 *(1.39)*
How sure are you that this relationship will last no matter what? (Security; SEC1)	3.97 *(1.14)*	3.93 *(1.01)*
How sure are you that this relationship will last regardless of fights? (Security; SEC2)	3.73 *(1.31)*	3.88 *(1.22)*
How sure are you that this relationship will continue in the years to come? (Security; SEC3)	4.09 *(1.10)*	4.09 *(1.05)*

Table 2. Bivariate Correlations Between Self- and Peer-Reported Anxiety, Intimacy, & Security at T1

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. SA1	1	.51**	.48**	.12*	.07	.06	-.04	-.03	.07	-.07	-.02	-.07
2. SA2		1	.54**	.20**	.07	.17**	-.05	-.06	.03	-.12*	-.02	-.16**
3. SA3			1	.12*	.11*	.12*	.01	.15**	.14**	-.02	-.00	-.04
4. PA1				1	.46**	.38**	.01	.03	.11*	-.00	-.07	.01
5. PA2					1	.38**	.08	.16**	.18**	.05	.06	-.01
6. PA3						1	.06	.12*	.14**	.02	-.00	-.03
7. INT1							1	.54**	.50**	.28**	.25**	.28**
8. INT2								1	.69**	.34**	.22**	.32**
9. INT3									1	.34**	.19**	.32**
10. SEC1										1	.44**	.66**
11. SEC2											1	.40**
12. SEC3												1

Notes: SA = Self-Rated Anxiety; PA = Peer-Rated Anxiety; INT = Intimacy; SEC = Security; **$p<.01$; *$p<.05$; $^t p<.10$

Table 3. Bivariate Correlations Between Self- and Peer-Reported Anxiety, Intimacy, & Security at T2

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. SA1	1	.53**	.50**	.12*	.18**	.16**	.02	.04	.09	-.04	-.07	.01
2. SA2		1	.56**	.05	.14**	.10*	-.02	.08	.10*	.03	.01	.02
3. SA3			1	.09	.17**	.14**	.05	.11*	.13**	.04	.02	-.00
4. PA1				1	.55**	.53**	-.06	.02	.00	-.01	-.15**	-.04
5. PA2					1	.47**	.01	.08	.05	.04	-.06	.01
6. PA3						1	-.02	.06	.06	.03	-.08	.00
7. INT1							1	.54**	.52**	.35**	.24**	.24**
8. INT2								1	.78**	.33**	.22**	.20**
9. INT3									1	.34**	.25**	.28**
10. SEC1										1	.54**	.65**
11. SEC2											1	.51**
12. SEC3												1

Notes: SA = Self-Rated Anxiety; PA = Peer-Rated Anxiety; INT = Intimacy; SEC = Security; **$p<.01$; *$p<.05$; $^t p<.10$

Data Analyses.

Confirmatory factory analyses (CFA). Prior to conducting structural equation modeling (SEM), a confirmatory factor analysis (CFA), conducted with Mplus, was performed to evaluate the proposed measurement model. Four three-item latent variables, each representing a single construct, were evaluated. They are (a) self-assessed anxiety ("I am nervous or tense", "I worry a lot", and "I get stressed a lot"); (b) peer-assessed anxiety ("Someone who is nervous or tense", "Someone who worries a lot", and "Someone who gets stressed a lot") (c), intimacy ("How much do you talk about everything with this person?", "How much do you share your secrets and private feelings with this person?", and "How much do you talk to this person about things that you don't want others to know?"); and (d) security ("How sure are you that this relationship will last no matter what?", "How sure are you that this relationship will last regardless of fights?", and "How sure are you that this relationship will continue in the years to come?").

Four additional latent constructs were created to represent the interaction scores. They are (a) self-assessed anxiety by intimacy; (b) self-assessed anxiety by security; (c) peer-assessed anxiety by intimacy; and (d) peer-assessed anxiety by security. The latent interaction scores were created with a four-step process. In the first step each item in each of the two measures included in the interaction was multiplied by each of the items in the other measure. As there were three items in each measure there was a total of nine items to create three "parcels" that would be the items used in the latent scores (see Little, Cunningham, Shahar, & Widaman, 2002 for a discussion of parceling). Each item was included only once in each parcel. For example, the product of the first item in the anxiety measure times the first item in the friendship measure was included in the first parcel while the product of the first item in the anxiety measure times the second item in the friendship measure was included in the second parcel and the product of the

first item in the anxiety measure times the third item in the friendship measure was included in the third parcel and so on. On the third step the three product scores in each parcel were averaged together to create a single value for each person on each parcel. The goal of the fourth step was to extract from each of the three parcel scores any variance that was related specifically to items that were used to make the product terms. A problem with the interaction scores is that they are correlated with the individual scores that are used to create them. The multicollinearity that results from the association is problematic because it can increase the size of the standard error for the observed effects of the intersection. Accordingly it can reduce power. To eliminate this multicollinearity the multiple regression procedure from SPSS (SPSS Inc., 2005) was used to estimate the variance in each parcel related to the main effects of the anxiety and friendship measures. This variance related to the main effects was then eliminated from the parcel leaving behind only the variance related to the interaction per se.

Model fit was assessed with several fit indices according to the standards put forth by Hu and Bentler (1999) as well as the Chi-square test of model fit. The fit indices assessed were the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Cutoff scores close to 0.95 are suggested for CFI and TLI, 0.06 for RMSEA, and 0.08 for SRMR (Hu and Bentler, 1999).

In total, two CFA models were conducted. The first included all self-assessed anxiety measures as well as security, intimacy, and interaction measures. This CFA model showed adequate fit (χ^2 (215) = 426.118, $p < 0.05$, CFI = 0.94, TLI = 0.92, RMSEA = 0.05 (0.04-0.05), SRMR = .04). The second included all peer-assessed anxiety measures as well as security, intimacy, and interaction measures. This CFA model showed adequate fit (χ^2 (215) = 372.527, $p < 0.05$, CFI = 0.95, TLI = 0.94, RMSEA = 0.04 (0.03-0.05), SRMR = 0.04).

Structural Equation Modeling (SEM). A latent variable structural equation model (SEM), conducted with Mplus, was used to test the hypotheses. Four sets of analyses were conducted. Two sets used self-assessed measures whereas the other two used peer-assessed measures. Within each set, one analysis examined the effects of intimacy and the other assessed the effects of security. Within each of the four sets of analyses, three models were evaluated. The first model was a simple auto-correlation and within-time covariance model that included (a) direct paths from measures at T1 of anxiety to the T2 measure, and (b) covariances between the measures at each time. The second model included a path from the friendship measure at T2. The third model included a direct path from the interaction measure at T1 to the anxiety measure at T2. Whereas the second model assessed the effect of the T1 friendship measure, the third model examined the effect of the hypothesized interaction that friendship experience would moderate the stability of anxiety from T1 to T2. Differences between the models within each set were examined with a Chi-square difference test and with a null hypothesis test of the statistical significance of the additional path. Finally, for each of the four sets of analyses, a multigroup procedure was then used to assess differences in the model between boys and girls.

Self-Reported Anxiety and Intimacy.

The first set of analyses used self-assessments of anxiety and considered the effects of friendship intimacy (See Figures 1 and 2). The first model assessed autocorrelation/stability and the covariances within time. In this model there were two direct paths (i.e., one from T1 anxiety to T2 anxiety, and one from T1 intimacy to T2 intimacy), and four covariances (i.e., one between T1 anxiety and T1 intimacy, one between T1 anxiety and the T1 interaction score between anxiety and intimacy, one between T1 intimacy and the T1 interaction score between anxiety and intimacy, and one between T2 anxiety and T2 intimacy). The model showed a good fit (χ^2 (78) =

Figure 1. Self-Rated Anxiety and Intimacy - Full Sample Model
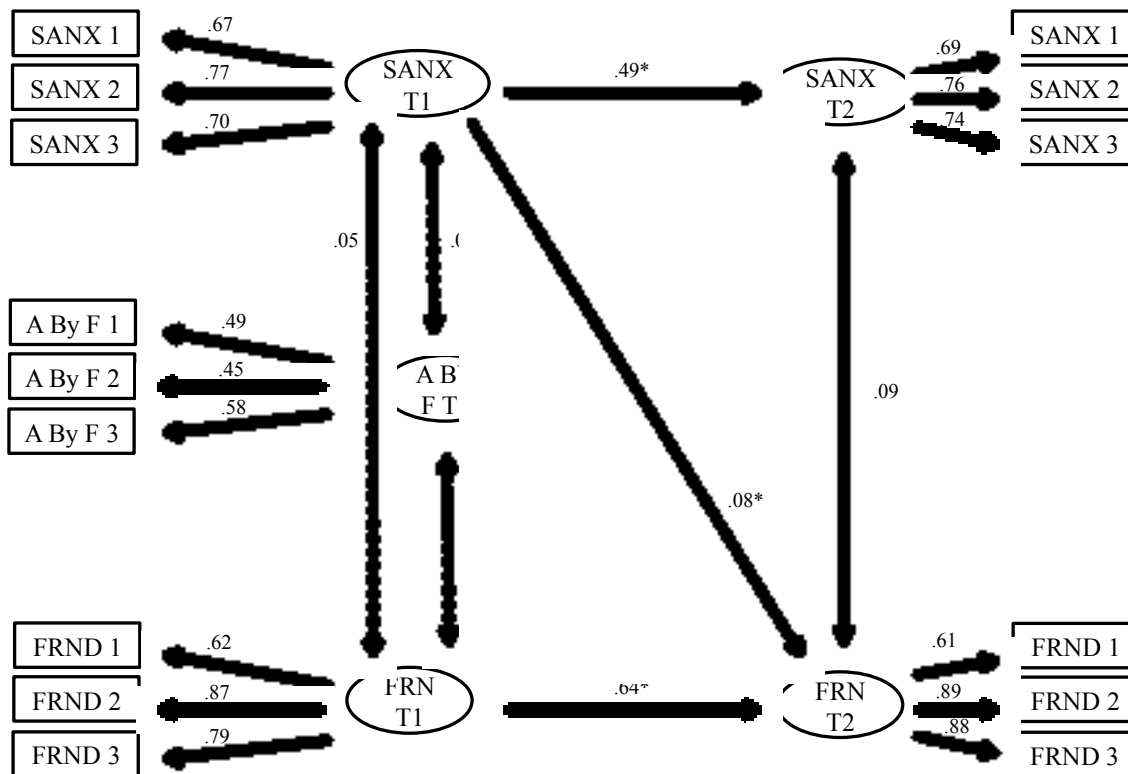
Note. Significant effects shown as standardized coefficients (betas). Continuous pathways are significant at p < .05 and dotted pathways are non-significant.

Figure 2. Self-Rated Anxiety and Intimacy Full Sample Graph
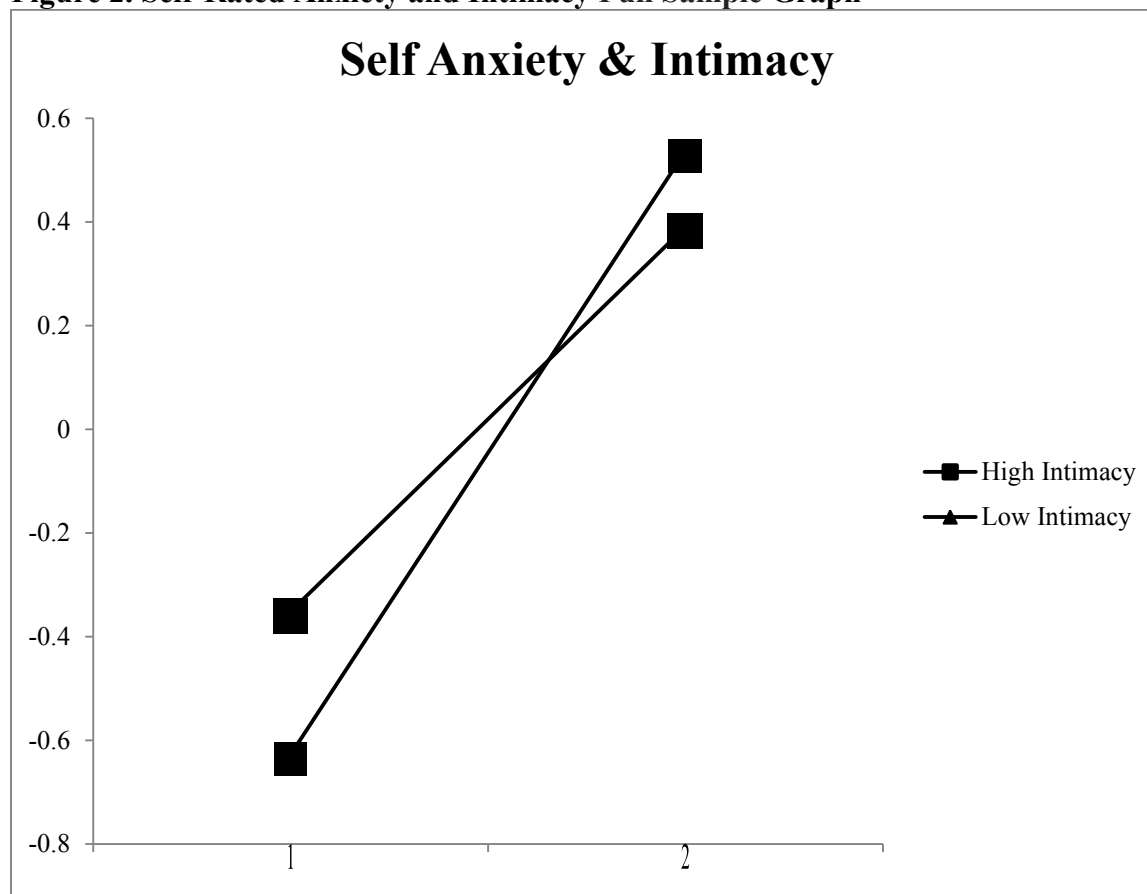
Note. 1 = Low Self-Rated Anxiety at T1, 2 = High Self-Rated Anxiety at T1, and the Y-Axis represents Self-Rated Anxiety at T2 (standardized).

124.329, $p < 0.05$, CFI = 0.98, TLI = 0.97, RMSEA = 0.04 (0.02-0.05), SRMR = 0.04). The

second model included the same variables as the first model with two additional direct paths: one

from the measure of intimacy at T1 to the measure of anxiety at T2 and another from the T1

measure of anxiety to the T2 measure of intimacy. This model also showed a good fit (χ^2 (76) =

121.247, $p < 0.05$, CFI = 0.98, TLI = 0.97, RMSEA = 0.04 (0.02-0.05), SRMR = 0.04). A Chi-

square difference test showed that this model did not differ from the first model ($\Delta\chi^2$ (2) = 3.082,

$p = 0.214$) and the effect of the newly added path was non-significant. The third model was

identical to the second model with the addition of two direct paths: one from the T1 interaction

score to T2 anxiety and another from the T1 interaction score to T2 intimacy. It also showed a

good fit for this model (χ^2 (74) = 118.380, $p < 0.05$, CFI = 0.98, TLI = 0.97, RMSEA = 0.04

(0.02-0.05), SRMR = 0.04) and was observed to be marginally better than the second model ($\Delta\chi^2$

(2) = 2.867, $p = 0.238$). The effect of the newly added path was observed to be statistically

significant ($B = -0.12$, SE = 0.07, t-score = -1.69, $p = 0.045$). A clarification of the observed

interaction showed that the stability of anxiety from T1 to T2 is lower for children who perceived

high levels of intimacy in their friendships than for children who perceived lower levels of

intimacy in their friendships. This model explained 1.4% of the variance in the T2 measure of

anxiety.

Self-Reported Anxiety and Security.

The second set of analyses used self-assessments of anxiety and considered the effects of

friendship security (See Figures 3 and 4). As in the first set of analyses, the first model assessed

autocorrelation/stability and the within-time covariances. This model included two direct paths

(i.e., one from T1 anxiety to T2 anxiety, and one from T1 security to T2 security), and four

covariances (i.e., one between T1 anxiety and T1 security, one between T1 anxiety and the T1

Figure 3. Self-Rated Anxiety and Security - Full Sample Model
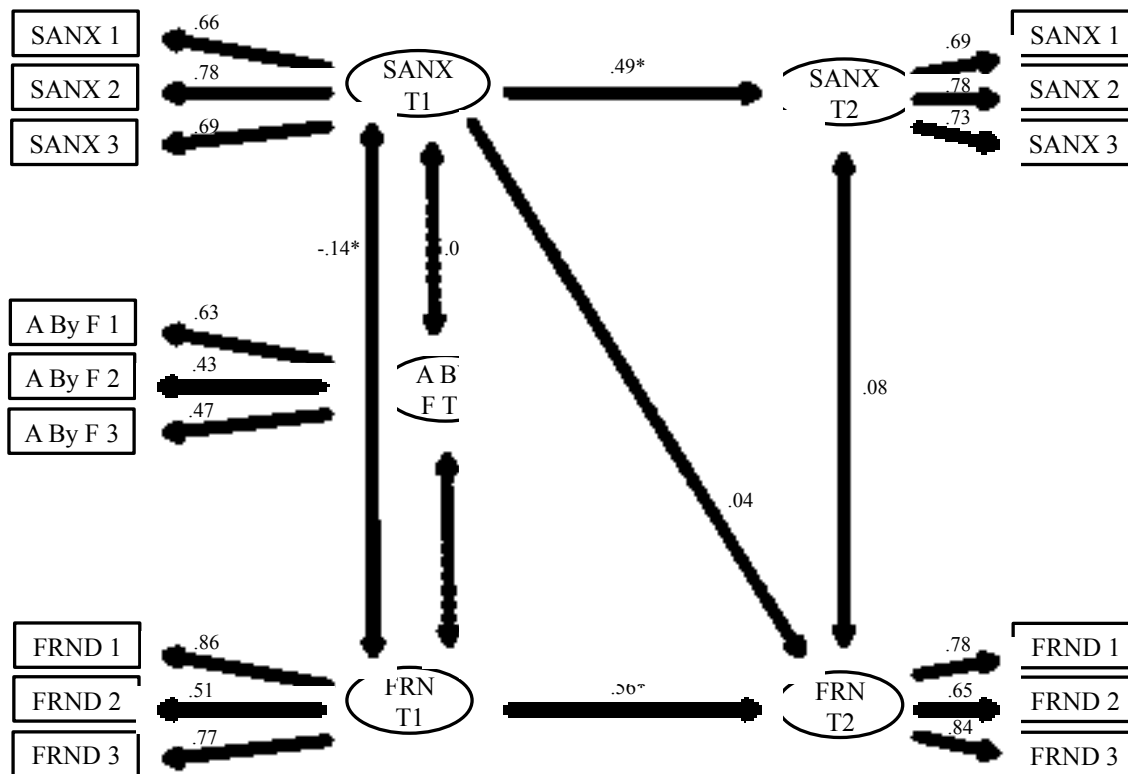
Note. Significant effects shown as standardized coefficients (betas). Continuous pathways are significant at p < .05 and dotted pathways are non-significant.

Figure 4. Self-Rated Anxiety and Security Full Sample Graph
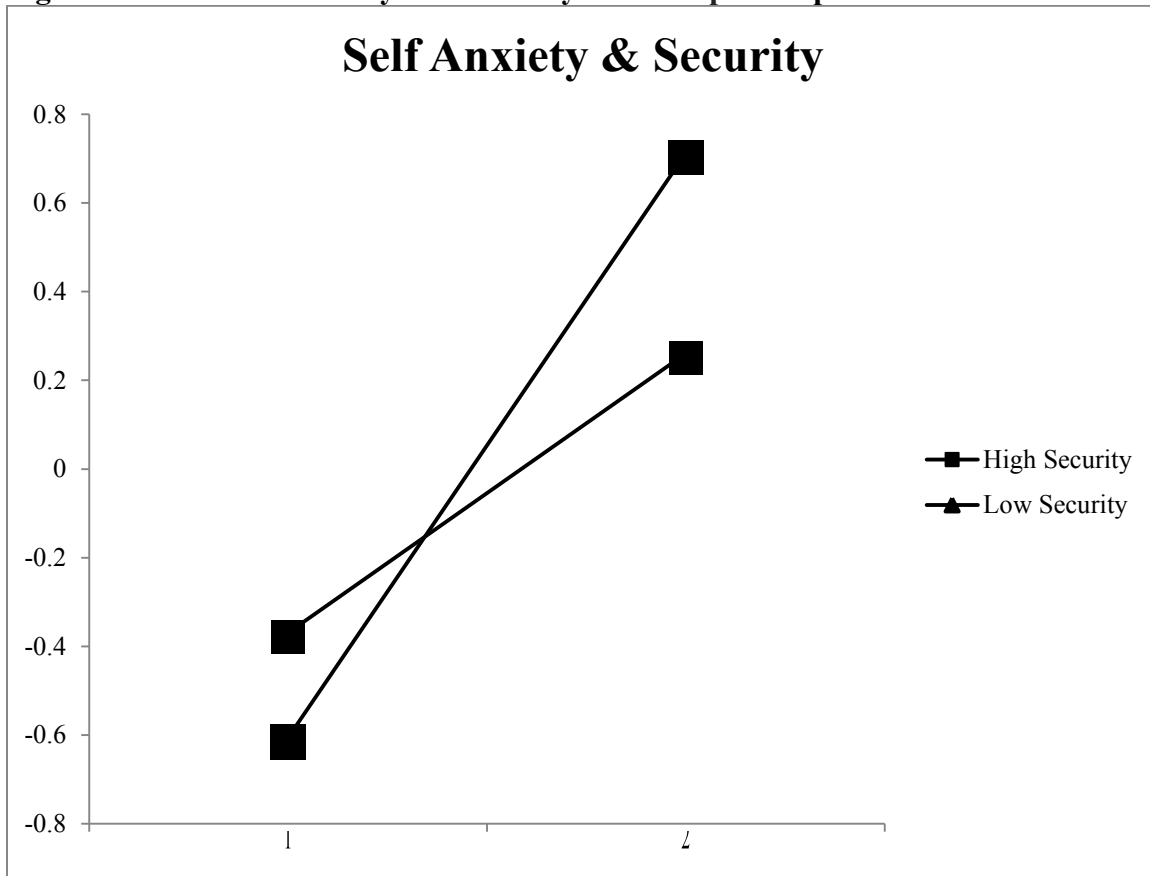
Note. 1 = Low Self-Rated Anxiety at T1, 2 = High Self-Rated Anxiety at T1, and the Y-Axis represents Self-Rated Anxiety at T2 (standardized).

interaction score between anxiety and security, one between T1 security and the T1 interaction score between anxiety and security, and one between T2 anxiety and T2 security). The model showed a good fit (χ^2 (78) = 112.848, $p < 0.05$, CFI = 0.98, TLI = 0.97, RMSEA = 0.03 (0.02-0.05), SRMR = 0.04). The second model included the same variables as the first model with two additional direct paths: one from the measure of security at T1 to the measure of anxiety at T2 and another from the T1 measure of anxiety to the T2 measure of security. The fit of this model (χ^2 (76) = 111.276, $p < 0.05$, CFI = 0.98, TLI = 0.97, RMSEA = 0.03 (0.02-0.05), SRMR = 0.04) was not observed to differ from the first model ($\Delta\chi^2$ (2) = 1.572, $p = 0.456$). The third model was identical to the second model with the addition of two direct paths: one from the T1 interaction score to T2 anxiety and another from the T1 interaction score to T2 security. It showed a good fit (χ^2 (74) = 102.933, $p < 0.05$, CFI = 0.98, TLI = 0.98, RMSEA = 0.03 (0.01-0.04), SRMR = 0.03) and was observed to have a significantly better fit than the second model ($\Delta\chi^2$ (2) = 8.343, $p = 0.015$). The effect of the newly added interaction score was observed to be significant ($B = -0.17$, SE = 0.07, t-score = -2.52, $p = 0.006$). A clarification of the observed interaction showed that the stability of anxiety from T1 to T2 is lower for children who perceived high levels of security in their friendships than for children who perceived lower levels of security in their friendships. This model explained 2.9% of the variance in the T2 measure of anxiety.

Peer-Reported Anxiety and Intimacy.

The third set of analyses used peer-assessments of anxiety and considered the effects of friendship intimacy (See Figures 5 and 6). As in the previous sets of analyses, the first model assessed autocorrelation/stability and the within-time covariances. This model included two direct paths (i.e., one from T1 anxiety to T2 anxiety, and one from T1 intimacy to T2 intimacy),

Figure 5. Peer-Rated Anxiety and Intimacy - Full Sample Model
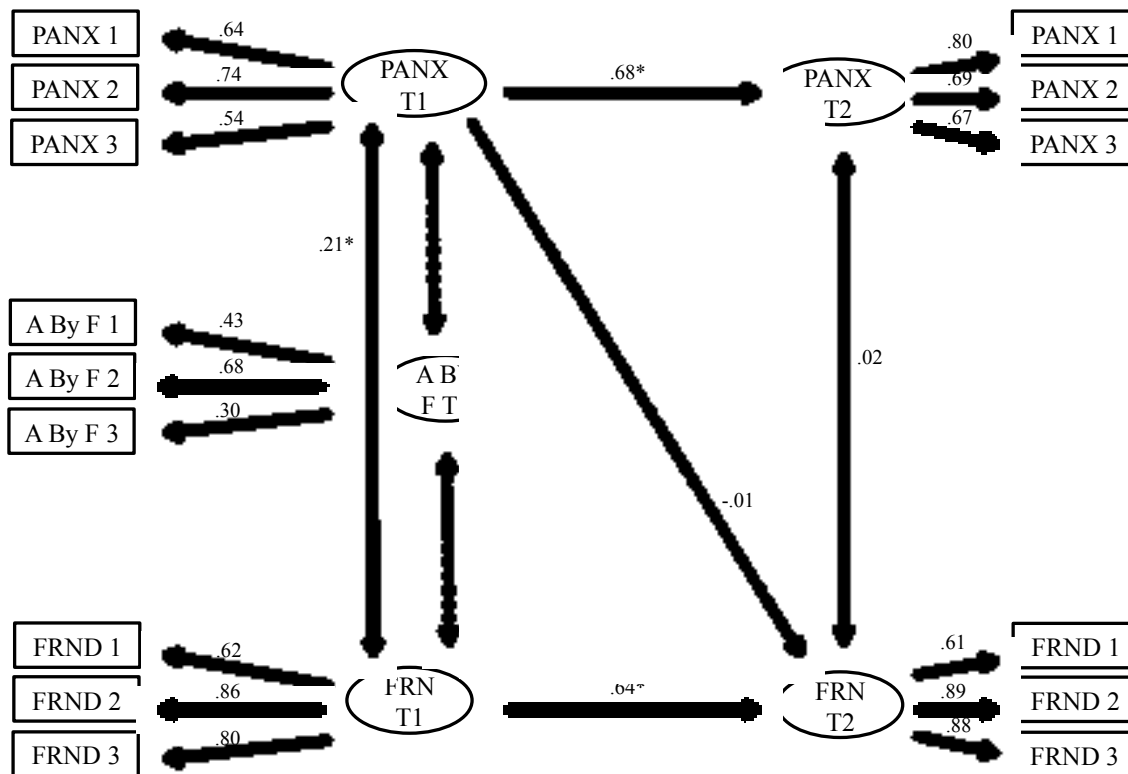
Note. Significant effects shown as standardized coefficients (betas). Continuous pathways are significant at p < .05 and dotted pathways are non-significant.

Figure 6. Peer-Rated Anxiety and Intimacy Full Sample Graph
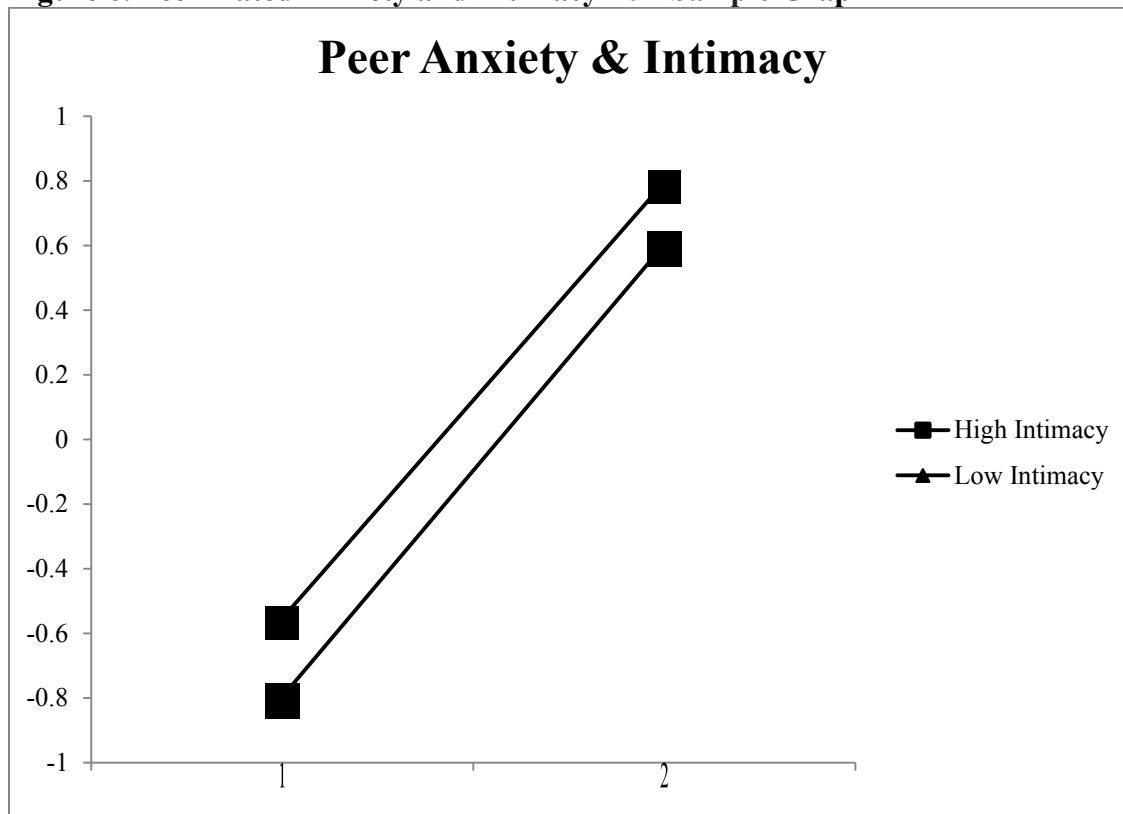
Note. 1 = Low Peer-Rated Anxiety at T1, 2 = High Peer-Rated Anxiety at T1, and the Y-Axis represents Peer-Rated Anxiety at T2 (standardized).

and four covariances (i.e., one between T1 anxiety and intimacy, one between T1 anxiety and the

T1 interaction score between anxiety and intimacy, one between T1 intimacy and the T1

interaction score between anxiety and intimacy, and one between T1 anxiety and T2 intimacy).

The model showed a good fit (χ^2 (78) = 90.427, $p > 0.05$, CFI = 0.99, TLI = 0.99, RMSEA =

0.02 (0.00-0.04), SRMR = 0.04). The second model included the same variables as the first

model with two additional direct paths: one from the measure of intimacy at T1 to the measure of

anxiety at T2 and another from the T1 measure of anxiety to the T2 measure of intimacy. The fit

of this model (χ^2 (76) = 87.217, $p > 0.05$, CFI = 0.99, TLI = 0.99, RMSEA = 0.02 (0.00-0.03),

SRMR = 0.03) was not observed to differ from the first model ($\Delta\chi^2$ (2) = 3.21, $p = 0.201$). The

third model was identical to the second model with the addition of two direct paths: one from the

T1 interaction score to T2 anxiety and another from the T1 interaction score to T2 intimacy. It

showed a good fit (χ^2 (74) = 87.070, $p > 0.05$, CFI = 0.99, TLI = 0.99, RMSEA = 0.02 (0.00-

0.04), SRMR = 0.03) and was not observed to differ from the second model ($\Delta\chi^2$ (2) = 0.147, p

= 0.929). Friendship intimacy was not observed to moderate the association between peer-

reported anxiety at T1 and peer-reported anxiety at T2 ($B = 0.03$, SE = 0.07, t-score = 0.38, p =

0.352). A clarification of the observed interaction showed that anxiety is not perceived as

reduced for anxious children over time by their peers despite these children perceiving their close

friendships as being intimate.

Peer-Reported Anxiety and Security.

The fourth set of analyses used peer-assessments of anxiety and considered the effects of

friendship security (See Figures 7 and 8). The first model assessed autocorrelation/stability and

the within-time covariances. This model included two direct paths (i.e., one from T1 anxiety to

T2 anxiety, and one from T1 security to T2 security), and four covariances (i.e., one between T1

Figure 7. Peer-Rated Anxiety and Security - Full Sample Model
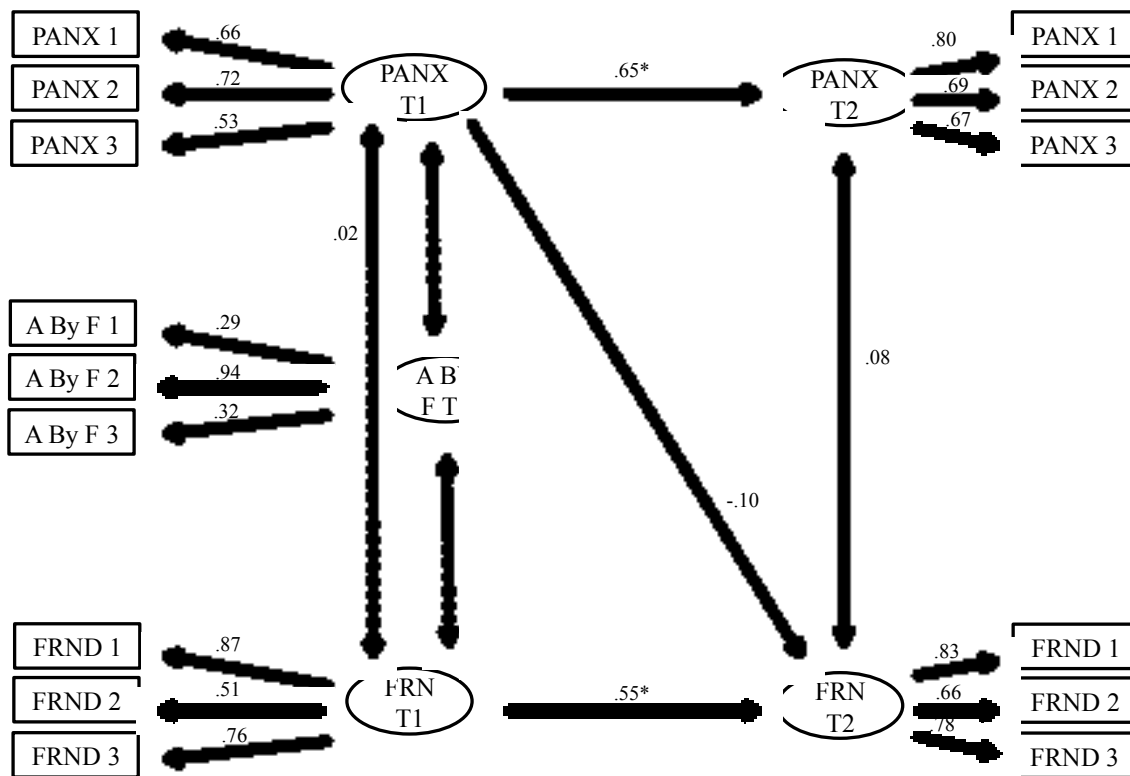
Note. Significant effects shown as standardized coefficients (betas). Continuous pathways are significant at p < .05 and dotted pathways are non-significant.

Figure 8. Peer-Rated Anxiety and Security Full Sample Graph
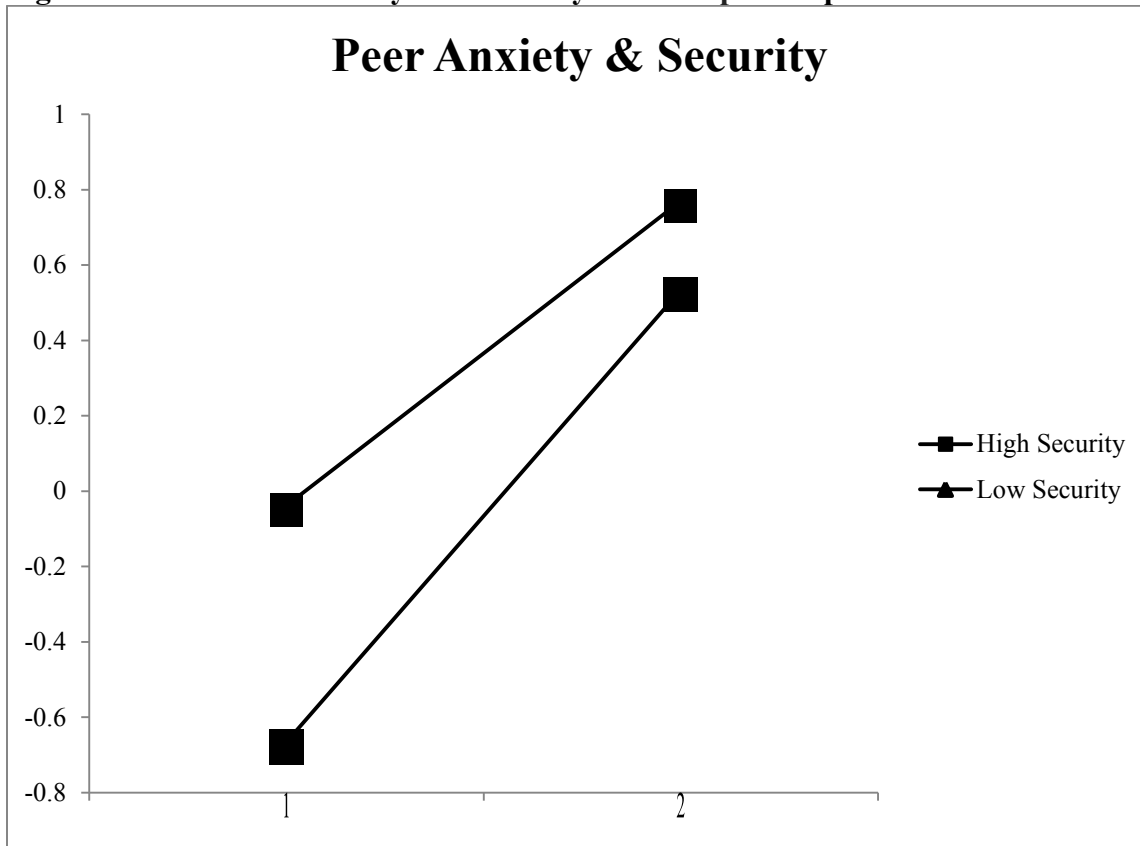
Note. 1 = Low Peer-Rated Anxiety at T1, 2 = High Peer-Rated Anxiety at T1, and the Y-Axis represents Peer-Rated Anxiety at T2 (standardized).

anxiety and T1 security, one between T1 anxiety and the T1 interaction score between anxiety and security, one between T1 security and the interaction score between anxiety and security, and one between T2 anxiety and T2 security). The model showed a good fit (χ^2 (78) = 93.065, p > 0.05, CFI = 0.99, TLI = 0.99, RMSEA = 0.02 (0.00-0.04), SRMR = 0.04). The second model included the same variables as the first model with two additional direct paths: one from the measure of security at T1 to the measure of anxiety at T2 and another from the T1 measure of anxiety to the T2 measure of security. The fit of this model (χ^2 (76) = 88.924, p > 0.05, CFI = 0.99, TLI = 0.99, RMSEA = 0.02 (0.01-0.04), SRMR = 0.03) was not observed to differ from the first model ($\Delta\chi^2$ (2) = 4.141, p = 0.126). The third model was identical to the second model with the addition of two direct paths: one from the T1 interaction score to T2 anxiety and another from the T1 interaction score to T2 security. It showed a good fit (χ^2 (74) = 86.117, p > 0.05, CFI = 0.99, TLI = 0.99, RMSEA = 0.02 (0.00-0.04), SRMR = 0.03) and was not observed to differ from the second model ($\Delta\chi^2$ (2) = 2.807, p = 0.246). Friendship security was not observed to moderate the association between peer-reported anxiety at T1 and peer-reported anxiety at T2 (B = -0.05, SE = 0.06, t-score = -0.96, p = 0.169). A clarification of the observed interaction showed that anxiety is not perceived as reduced for anxious children over time by their peers despite these children perceiving their close friendships as being secure.

Multiple Group Model - Self-Reported Anxiety and Intimacy.

The first set of multigroup analyses used self-assessments of anxiety and considered the effects of friendship intimacy for boys and girls. Both a free and a constrained model were run and compared via a Chi-square difference test (i.e., the unconstrained model was compared to the constrained model) in order to determine which model best fit the data (i.e., whether a gender effect was present). The Chi-square difference test ($\Delta\chi^2$ (1) = 0.500, p = 0.480) revealed that the

unconstrained model and constrained model did not differ significantly from one another. Therefore, no significant sex differences were discovered.

Multiple Group Model - Self-Reported Anxiety and Security.

The second set of multigroup analyses used self-assessments of anxiety and considered the effects of friendship security for boys and girls. Both a free and a constrained model were run and compared via a Chi-square difference test (i.e., the unconstrained model was compared to the constrained model) in order to determine which model best fit the data (i.e., whether a gender effect was present). The Chi-square difference test ($\Delta\chi^2$ (1) = 1.832, p = 0.176) revealed that the unconstrained model and the constrained model did not differ significantly from one another. Therefore, no significant sex differences were discovered.

Multiple Group Model - Peer-Reported Anxiety and Intimacy.

The first set of multigroup analyses used peer-assessments of anxiety and considered the effects of friendship intimacy for boys and girls. Both a free and three constrained models were run and compared via Chi-square difference tests (i.e., the unconstrained model was compared to the constrained models) in order to determine which model best fit the data (i.e., whether a gender effect was present). Chi-square difference tests ($\Delta\chi^2$ (1) = 0.079, p = 0.779) revealed that the unconstrained model and the constrained models did not differ significantly from one another. Therefore, no significant sex differences were discovered.

Multiple Group Model - Peer-Reported Anxiety and Security.

The final set of multigroup analyses used peer-assessments of anxiety and considered the effects of friendship security for boys and girls. Both a free and a constrained model were run and compared via a Chi-square difference test (i.e., the unconstrained model was compared to the constrained model) in order to determine which model best fit the data (i.e., whether a gender

effect was present). The Chi-square difference test ($\Delta\chi^2$ (1) = 0.023, p = 0.879) revealed that the unconstrained model and constrained model did not differ significantly from one another. Therefore, no significant sex differences were discovered.

Discussion

This study investigated the positive effects of possessing high quality friendships for anxious preadolescents. The first hypothesis was that anxious children that have intimate or secure friendships (i.e., possess high quality friendships) at T1 would have lower self-rated feelings of anxiety at T2 than children who have friendships at T1 that are lower in security and intimacy. Specifically, high quality friendships were posited to have a protective effect and would therefore decrease feelings of anxiety in anxious youth over time. It was indeed discovered that anxious children who had highly secure and intimate relationships with their best friends fared better than anxious children possessing friendships low on these qualities. The findings illustrate the benefits of such friendship traits and offer additional insight to the existing material on potential buffers of anxiety in youth over time (e.g., Baker & Hudson, 2013; Erath, Flanagan, Bierman, & Tu, 2010; Festa & Ginsburg, 2011; La Greca & Harrison, 2005; Rose et al., 2011; Schmidt & Bagwell, 2007).

This information adds to the large amount of aforementioned research that has been conducted on the role friendships play in the lives of young individuals. Evidently investigators in the field of psychology recognize the importance of better understanding both the threats and buffers present in the lives of youth as was previously illustrated. Given that friendship plays a central role in the lives of children and adolescents and can even have a greater impact on adjustment than strong parental relationships (Laible, Carlo, & Raffaelli, 2000), it is essential to understand how these relationships affect them. It was of particular importance to examine the positive effects that certain friendship qualities can provide to youth. The current project extended the knowledge of the protective factors that close friendships can provide to anxious youth at a time where anxiety disorders usually arise – preadolescence. Not only is this period of

time when anxiety disorders appear, but it is also when friendships evolve and take on new meaning. For example, preadolescent friendships are less play based and place a greater emphasis on similar values and self-disclosure (for a review see Bukowski et al., 2011). In fact, Bukowski et al. (2011) discovered that dyadic relationships (i.e., meaningful interactions involving expectations and emotions) were more significant than dyadic interactions (i.e., social exchanges) for early adolescents and that their relationships are directly associated with well-being. Relationship measures in the above-mentioned study consisted of security and closeness, which is supported by the current project. This result speaks to the importance of these specific friendship qualities and the role they play in the positive adjustment of preadolescents.

The results of the current study revealed that the friendship qualities of intimacy and security in the close friendships of anxious children successfully predict decreases in feelings of anxiety over time. Intimacy involves sharing personal information with others while security comprises feeling safe within a relationship. The effects of security on anxiety reduction were stronger than those for intimacy. In fact, the effects of friendship security on anxiety were approximately double those of intimacy. A possible explanation for this finding may be related to the qualities of anxiety itself. For example, one of the main features common in anxiety, especially generalized anxiety, is intolerance of uncertainty (IU: Dugas, Laugesen, & Bukowski, 2012). IU is understood to be highly related to worry, which comprised a part of the anxiety measure in the current study (i.e., the item "I worry a lot"). In a longitudinal study of youth (mean age of 12), Dugas et al. (2012) discovered that a change in IU could partially mediate a change in worry and that a change in worry could partially mediate a change in IU (i.e., the effects were bidirectional). Although not specifically assessed in this particular study, it is possible that friendship security may be protective for anxious children because it provides them

with a form of certainty in their lives. In other words, if young individuals are highly worried and strive to gain reassurance from their environments, one of the main sources of assurance may come from their friends with whom they have formed close bonds. This speaks to the "durability" in relationships that Sullivan (1953) noted to be so important during preadolescence. Therefore, although intimacy is an important factor in the decrease of anxiety for anxious preadolescents, security appears to have a stronger effect. This may be attributable to the certainty provided, which is related to IU (i.e., a key component of anxiety). This line of inquiry is a potential avenue for future work on peer relationships and anxiety in youth.

Moreover, no significant differences in anxiety reduction were detected between highly anxious children with and without security and intimacy within their friendships in the peer rated models. This finding does not support the second hypothesis that protective effects of intimacy and security will be observed more strongly with the self-report measure of anxiety than with a peer-report index of anxiety. Actually, the hypothesis was unsupported since the results employing self-reported measure were not only stronger but instead the only significant findings when compared with the results of the peer-rated index. Essentially, when children were asked to indicate who is anxious within their classroom via peer nominations, it was discovered that youth who were perceived by their classmates as anxious at T1 seemed to be perceived as anxious at the second time point as well despite the individuals reporting that they have intimate and secure relationships. This finding indicates that there may be a reputational effect present for anxious youth. In other words, if a child is deemed to be anxious by peers then they are perceived to be similarly anxious at the second time point even if they themselves have felt a decrease in their anxiety. However, given that anxiety is a subjective state and is not always evident to others, it is also possible that children would not necessarily notice a change in anxiety in their peers. This

may be the case if anxiety is more strongly tied to worry, which might be more difficult to detect than overt, observable signs of anxiety (e.g., tension and stress).

Notably, contrary to the third hypothesis, no gender differences were found in this study. Essentially, a greater decrease in anxiety occurred over time for both boys and girls who possessed high intimacy and security within their close friendships when compared with boys and girls with low friendship quality. It was hypothesized that anxiety reduction would be greater for girls when compared with boys as they have been shown to possess higher levels of emotional connectedness (e.g., the expression of emotions) within their friendships than boys (for a review see Rose & Rudolph, 2006). Conversely, anxious boys appear to benefit equally from close friendships possessing high levels of security and intimacy as girls. It is important to note that ratings of friendship quality were subjective in this study. Therefore, although girls may place a greater emphasis upon emotions within their relationships (Rose & Rudolph, 2006), if anxious boys feel that they are able to share their thoughts and feelings with their friends then anxiety may decrease relative to those without such closeness. In other words, though boys may possess less intimacy than girls in their friendships, anxious boys with greater intimacy within their friendships experience a larger decrease in anxiety relative to their anxious male peers with lower levels of intimacy. Explicitly, this may be a comparative difference between the intimacy levels between boys and girls but what truly matters is whether a child's intimacy needs are being met. This finding is particularly important since interventions should target both boys and girls.

Similarly, no sex differences were present for the impact of friendship security upon anxiety. Security has been well established as an important component of friendships (Bukowski et al., 1994; Bukowski et al., 2011; Gauze et al., 1996). The results of the current research could

potentially be explained by the previously mentioned idea that possessing security within their friendships allows anxious children to have some form of certainty in their lives. If an anxious preadolescent has difficulty dealing with uncertainty and worries often, particularly about their interpersonal relationships, having secure close friendships would likely provide assurance to youth regardless of sex.

When compared with previous work, the results of this study support and extend other findings on the protectiveness of friendship for anxious youth (e.g., Erath et al., 2010; Rose et al., 2011) and the hypothesis that high quality friendships buffer maladjustment (Sullivan, 1953). The results did not, however, support the findings of Festa and Ginsburg (2011) who reported that intimacy within friendships could not reduce social anxiety in children. The differing findings could result from the fact that (a) social anxiety was examined in their project, which was not the case in this research and (b) self-reports were not used to evaluate anxiety by the authors. Furthermore, results from this study did not support the findings of Van Zalk et al. (2011), who reported that anxiety increased for adolescents with close friendships. The authors found that socially anxious youth tend to choose other socially anxious individuals as friends and as such reinforce feelings of anxiety so that they increase over time. Despite these differences, the authors also investigated social forms of anxiety specifically, which may account for the disparities in results.

Additionally, this study did not examine the types of friendships anxious youth possess (i.e., whether anxious children chose similarly anxious peers as close friends). Explicitly, it was not investigated whether anxious children with comparably anxious close friends experience maintenance of or an increase in anxiety over time regardless of intimate and secure friendship features. However, although not directly assessed in this study, it is well known within the peer

literature that friends tend to be similar to one another (for a review see Bukowski, Motzoi, & Meyer, 2009; Bukowski & Hoza, 1989). It may even be the case that anxious youth with anxious close friends participate in co-rumination – a form of discussing and revisiting the same issues at length and dwelling on them (Rose, 2002). Engaging in co-rumination could potentially perpetuate negative feelings over time instead of decreasing them (Rose et al., 2007). In fact, it is possible that intimacy might be manifested in co-rumination since it can be a coping strategy, particularly in girls (Rose & Rudolph, 2006). Despite the positive intention of co-rumination (e.g., reduction of negative emotions), it may result in empathic distress, which is a concept that reflects the tendency that girls in particular have of taking on the distress of others as their own (see Smith & Rose, 2011). In a similar way, co-rumination might produce greater anxiety in girls (Rose et al., 2007) if they were to take on the anxiety of their friends as their own. Ultimately, the literature emphasizes that there are positive and negative aspects of friendship closeness especially in the relationships of girls (e.g., Rose et al., 2007; Smith & Rose, 2011; Tompkins, Hockett, Abraibesh, & Witt, 2011). In the current study, the construct of intimacy involved assessing self-disclosure (e.g., "How much do you share your secrets and private feelings with this person?"). In previous literature, self-disclosure was not related to internalization whereas co-rumination was (Rose, 2002). Rose (2002) also found that co-rumination was related to closeness and positive friendship quality, illustrating the simultaneous positive and negative aspects of co-rumination. Tompkins et al. (2011) reported that girls who co-ruminated more also had higher levels of anxiety. Future work could investigate whether friendship type (e.g., two anxious preadolescents versus one preadolescent high on anxiety and the other low on anxiety) affects the trajectory of anxiety across time. It would also be interesting to include measures of co-rumination to tease apart the effects of this construct and that of self-disclosure (i.e., intimacy

in this study). For example, the results from this research indicate that highly anxious preadolescents experienced a greater decrease in anxiety than their peers when they have intimate and secure friendships. If intimacy involves co-rumination and self-disclosure, it would be pertinent to investigate whether children who co-ruminate experience differing effects on their anxiety over time than those who simply self-disclose and whether there is a difference between these groups and others who engage in both forms of intimate interaction.

There were several strengths present in this study that are worth noting. Primarily, data was collected from a large community sample of preadolescent individuals. Gathering data from a community population allows for the provision of information on the majority of anxious youth, rather than focusing on relatively smaller clinical subsamples. Additionally, this study was conducted longitudinally and could therefore detect changes in affect over time. Another strength of this research design is that both self and peer measures were employed to tease apart subjective feelings reported by preadolescents and reputational effects of anxiety reported by classroom peers. Moreover, advanced statistical methods were also employed to analyze the data from this research in order to detect the moderation effects present. Lastly, the measures of anxiety used in this study were broader than those typically used within the existing literature, which tends to focus on social forms of anxiety in young populations.

It is also true that no study is without its limitations. One limitation of the current study is that there were only two time points for data collection. Future research could be conducted over multiple time points to further understand the effects of friendship security and intimacy on feelings of anxiety across time. It would be particularly interesting to employ a cascade model (e.g., Bukowski, Laursen, & Hoza, 2010) to determine whether there are escalating trajectories of anxiety over multiple time points for children without high quality friendships. Lastly,

cognitive and physiological components of anxiety were compiled to create the overall measure of anxiety. For example, two items on cognitive features (i.e., "I worry a lot" and "I get stressed a lot") and one item on physiological features (i.e., "I am nervous or tense") were present. In fact, the latter included a component of physiology (i.e., tension) as well as cognition (i.e., nervousness). It would be interesting to tease apart these physical and cognitive aspects of anxiety in future work.

In sum, given the high prevalence of anxiety disorders within Canada, it is worthwhile to investigate feelings of anxiety when anxiety disorders typically arise. Anxiety disorders usually have their onset between the developmental period of childhood and adolescence (American Psychiatric Association, 2000), which makes preadolescence a critical time to study anxiety. It is also known that peers are central to the lives of young individuals. Therefore this study sought to better understand potential friendship factors that can serve to attenuate anxiety in youth over time. The results presented here reveal that possessing high levels of security and intimacy within close relationships with peers function to alleviate feelings of anxiety in preadolescent girls and boys when compared with their anxious peers without such protective friendship features. These friendship characteristics should be fostered in youth given the benefits that they provide, which can decrease future risk for more serious anxiety disorders. Promoting such friendships in anxious preadolescents is particularly important given the extensive literature on poor friendship quality characteristically found in this population (e.g., Greco & Morris, 2005; Crawford & Manassis, 2011). Despite these challenges faced by anxious children, the results of this study add to the literature that demonstrates the positive effects that peer relationships can provide to anxious young individuals (e.g., La Greca & Harrison, 2005; Rose et al., 2011). Taken together, with the knowledge that anxious youth can face numerous difficulties and that

friendships are integral to the life of a preadolescent, this study contributes to the body of work on the protective effects of possessing high quality friendships in childhood.

The knowledge obtained from this research can add to preventative measures used to protect anxious youth by aiding them find ways to manage and even decrease their levels of anxiety. For instance, psychoeducation is typically provided to adults suffering from anxiety within cognitive-behavioural therapy (CBT), which provides anxiety sufferers with information on what is occurring to them physiologically, cognitively, behaviourally, and emotionally when they experience such feelings. These individuals are taught to identify potential triggers or maintenance factors of their anxiety in order to change them and, in turn, reduce their anxious symptomatology. Similar forms of education could be provided to young individuals to help them better understand the positive forms of coping with anxiety. CBT administered within elementary schools to children with a diagnosed anxiety disorder has been shown to be effective (Chiu, A. W., Langer, D. A., McLeod, B. D., Har, K., Drahota, A., Galla, B. M., Jacobs, J., Ifekwunigwe, M., & Wood, J. J., 2013). Even children with subclinical anxiety (i.e., those without a formal anxiety disorder diagnosis) may benefit from such strategies. Specifically, anxious children could profit from understanding about various manifestations of anxiety (e.g., worry) and be taught techniques to cope with it. Additionally, education on the importance of particular friendship features like those discussed in this paper could be offered to youth so that they can ameliorate or maintain certain forms of relationships with their close friends. For instance, promoting the cultivation of self-disclosure with close friends rather than the engagement in co-rumination.

Conclusions

The aim of this study was to better understand the benefits of certain friendship qualities, namely security and intimacy, on feelings of anxiety over time in preadolescent populations. The results provide three important contributions to the research on friendship and anxiety in youth: 1) friendship security and intimacy successfully moderate the effects of self-reported anxiety in youth over time; 2) peers who saw their classmates as initially anxious (T1) tended to see these same individuals over time (T2), which indicates a potential reputation effect of anxiety; and 3) the protective effects of security and intimacy within close childhood friendships are not significantly different for preadolescent boys and girls. These findings add to the literature on the buffer potential of close friendships in youth for anxious individuals, which offer new means to protect children from maladjustment.

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Appendix A

Information Letter

January 16th, 2006

Dear Parent(s),

I am a professor at Concordia University, where I teach and do research on children and adolescents. One of the topics I study is how children's friendships, skills, and behaviors help them cope with daily hassles and stress in their lives. This topic is of interest to many parents, teachers, and health professionals. The purpose of this letter is to tell you about a study my students and I are conducting with fifth- and sixth-graders at your child's school. This study will help us learn more about children and their development.

As part of the study, I will meet with the participating children in their school, and ask them to complete a set of questionnaires about themselves and their friends on two occasions, once in late January/early February, and again in late May. In these questions, the children will be asked to tell us (a) who they typically associate with in school, (b) whether or not the other participating children in the class have particular characteristics, (c) how much they engage in behaviors like helping or leading a group, (d) how well they perform in school and (e) how they feel about themselves. We will also ask the school to provide us with the children's report card grades for the current academic year. All the questionnaires will be completed at the child's desk in school and none of the other children will know how any other child has answered the questions. We ask the children to maintain the privacy of their answers and we make certain that their answers are kept confidential. A copy of this questionnaire is available at the school principal's office.

As a token of thanks, all participating children will receive a reward of $10.00 from the research team. In addition, we will be providing lectures to the students about mental health, and about ways to cope with the stressors they encounter in their daily lives.

We would also like you to complete a questionnaire for us. In it you will find some questions about your family's financial resources, your family environment, your child's behaviour and whether you take part in any "games" of chance such as buying lottery tickets. It should not take you more than 15 minutes to complete this questionnaire and we assure you that all your answers will remain completely confidential. We will send the questionnaire home with your son or daughter and you will return it to us via standard mail in a stamped and addressed envelope that we will provide. *As a token of our appreciation, all families who participate in this part of the project will receive $20.00.* Although we hope that as many families as possible will participate in this part of the project, children may still participate in the classroom part of the project even if their parents choose not to complete the family questionnaire. A copy of the questionnaire for families can be consulted at the school principal's office as well.

People who do research with children or adults are required to describe the risks and benefits related to participating in their studies. We assure you that this study poses no risks, other than the risks children encounter in their day-to-day lives. It is not a treatment study, and it is not intended to provide direct benefits to the students who participate, though most children enjoy participating in such studies.

The information collected in this study will be <u>completely confidential</u>, and participation is entirely voluntary. Even if you give your child permission to participate, he/she is not required to take part; furthermore, you may change your mind at any time even if you already gave your permission.

This study has been approved by both the School Board and the Concordia University Human Research Ethics Committee. If at any time you have questions or concerns regarding your rights or your child's rights as research participants, please feel free to contact Adela Reid, Office of Research (Secretary to the Concordia University Human Research Ethics Committee) at (514) 848-2424 Ext. 4887.

If you have any other questions about the study, please call me at 848-2424 Ext. 2184 or send me a letter at: Department of Psychology, Concordia University, 7141 Sherbrooke Ouest, Montreal, QC, H4B 1R6. You can also email me at bukowsk@vax2.concordia.ca.

Please fill out the attached form and have your child return it to his/her teacher tomorrow.

As an incentive for the children to return the permission slip, any child who returns a slip, regardless of whether his/her parent has given permission for participating, will get a "twoonie" ($2.00).

Thank you for your help. We very much appreciate it.

Sincerely,

William M. Bukowski
Professor

Appendix B

Parental Consent Form

HEART, SOUL, MIND and BODY PROJECT

(GRADES 5 & 6)

WINTER 2006

PERMISSION SLIP

Please read and sign the following:

I understand that I am being asked if my daughter/son can take part in a research study conducted by Dr. W. M. Bukowski. I know that the purpose of the study is to examine how children's friendships, skills, and behaviors help them cope with daily hassles and stress in their lives. I know that if my daughter/son participates she/he will be asked to answer some questionnaires at his/her desk in the classroom. I have been told that the questionnaires are about the social relations of young people and how they think and feel about themselves and their friends. I know that my daughter/son does not have to participate in the study, and that even if she/he starts to take part in it, she/he can quit at any time. I also know that all answers will remain confidential and will NOT be shown to anyone. Only Dr. Bukowski and his assistants will know what is in the questionnaires.

Please check one of the following and ask your daughter/son to bring this permission slip into the homeroom class tomorrow.

_____   My son/daughter <u>has permission</u> to take part in Dr. Bukowski's study

_____   My son/daughter <u>DOES NOT have permission</u> to take part in Dr. Bukowski's study.

Parent's Name: _____ PHONE: (_____)_____

Signature: _____ DATE: _____

Child's Name: _____ CHILD'S SEX: Male   Female

Appendix C

Child Consent Form

Draft

Concordia
UNIVERSITY

VGTC Study / Concordia 2006

Name: _____

☐ Boy Age: ☐☐ Grade: ☐
☐ Girl

How many years have you been at this school? ☐

(**For example:** Write "1" if this is your first year here.)

What is your postal code? ☐☐☐ ☐☐☐

Please read and sign the following if you wish to participate in the study:

"I understand that I have been asked to be in a research study that Dr. W. M. Bukowski is doing about how young people feel about themselves and how they get along with others.

I know that I will be asked to answer some questionnaires in class. I know that I do not have to participate in the study, and that even if I start to take part in it, I can stop participating at any time. I also know that all answers will be kept confidential and will NOT be shown to anyone. Only Dr. Bukowski and his assistants will know my answers."

(SIGN) _____ Date: ☐☐ - 0 4 - 0 6
(day - month - year)

Please fill in the boxes completely: ■

and not like this ⊠ ☑ ⊝2

If you make a mistake, cross out the incorrect box and fill in the correct one:

■1 ☐2 ☐3 ⊠4 ☐5

Appendix D

Self-Rated Forms

What am I like?

Now, we'd like to know about you. Read each description and tell us how well that description fits you. Check the box on the scale that best describes you.

Check the box on the scale that is best for you. Be sure to read carefully and answer as honestly as possible.

How true is this for you?	Never true	Rarely true	Some-times true	Often true	Always true
01. I treat everyone equally	☐ 1	■ 2	■ 3	■ 4	■ 5
02. I prefer being by myself	■ 1	■ 2	■ 3	■ 4	■ 5
03. I hurt others physically	■ 1	■ 2	■ 3	■ 4	■ 5
04. I am unhappy	■ 1	■ 2	■ 3	■ 4	■ 5
05. Others do mean things to me	■ 1	■ 2	■ 3	■ 4	■ 5
06. I help others when they need it	☐ 1	■ 2	■ 3	■ 4	■ 5
07. I talk bad about others behind their backs to hurt them	■ 1	■ 2	■ 3	■ 4	■ 5
08. I help other people with their problems	■ 1	■ 2	■ 3	■ 4	■ 5
09. There is very little that I enjoy	■ 1	■ 2	■ 3	■ 4	■ 5
10. I am nervous or tense	■ 1	■ 2	■ 3	■ 4	■ 5
11. I play fairly	☐ 1	■ 2	■ 3	■ 4	■ 5
12. I would rather play alone than with others	■ 1	■ 2	■ 3	■ 4	■ 5
13. I worry a lot	■ 1	■ 2	■ 3	■ 4	■ 5
14. I help others when they need it	■ 1	■ 2	■ 3	■ 4	■ 5
15. I get stressed a lot	■ 1	■ 2	■ 3	■ 4	■ 5
16. I hit, push or shove people	☐ 1	■ 2	■ 3	■ 4	■ 5
17. I try to keep others out of the group when it's time to play	■ 1	■ 2	■ 3	■ 4	■ 5
18. I am sad	■ 1	■ 2	■ 3	■ 4	■ 5
19. I feel lonely	☐ 1	■ 2	■ 3	■ 4	■ 5
20. Others call me bad names	☐ 1	■ 2	■ 3	■ 4	■ 5
	Never true	Rarely true	Some-times true	Often true	Always true

Appendix E

Peer-Rated Forms

What are they like?

Class ID

Instructions: Below there are several different characteristics. Each one describes a different way that a person could be or could act. After each characteristic there are the names of the students in your class. Fill in the box beside the name of any person who fits the characteristic.

01. Someone who is smart and does well in school	02. Someone who plays fairly	03. Someone who talks bad about others behind their backs to hurt them	04. Someone who hits, pushes or shoves people
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

Class ID

Fill in the box beside the name of any person who fits the characteristic.

05. Someone who is liked by lots of people	06. Someone who would rather play alone than with others	07. Someone who worries a lot	08. Someone who hurts others physically
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

What are they like?

Fill in the box beside the name of any person who fits the characteristic.

09. Others call him/her bad names	10. Someone who is unhappy	11. Someone who makes sure that everyone is treated equally	12. Someone who is lonely
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

What are they like?

Fill in the box beside the name of any person who fits the characteristic.

13. Someone who is by themselves because they prefer to be	14. Someone who has trouble making friends	15. Someone who is stuck up and thinks he/she is better than others	16. Someone who is sad
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

What are they like?

Fill in the box beside the name of any person who fits the characteristic.

17. Someone who prefers being by themselves	18. Someone who helps other people with their problems	19. Someone who is popular	20. Someone who thinks they're better than they really are
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

What are they like?

Class ID

Fill in the box beside the name of any person who fits the characteristic.

21. Someone who is nervous or tense	22. Others do mean things to him/her	23. Someone who gets stressed a lot	24. Someone who is left out by the other kids at school
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

What are they like?

Class ID

Fill in the box beside the name of any person who fits the characteristic.

25. Someone who helps others when they need it	26. Someone who tries to keep others out of the group when it's time to play	27. Someone who always knows the right answer
Kayser Soze ☐	Kayser Soze ☐	Kayser Soze ☐
Michaela Joy Santo ☐	Michaela Joy Santo ☐	Michaela Joy Santo ☐
Jane Austen ☐	Jane Austen ☐	Jane Austen ☐
Al Franken ☐	Al Franken ☐	Al Franken ☐
Brenda Milner ☐	Brenda Milner ☐	Brenda Milner ☐
Cara Michelle Santo ☐	Cara Michelle Santo ☐	Cara Michelle Santo ☐
Juliet Capulet ☐	Juliet Capulet ☐	Juliet Capulet ☐
Anna Freud ☐	Anna Freud ☐	Anna Freud ☐
Lev Vygotsky ☐	Lev Vygotsky ☐	Lev Vygotsky ☐
Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐	Jonathan Bruce Santo ☐
Felicia Meyer ☐	Felicia Meyer ☐	Felicia Meyer ☐
Jimmy Hoffa ☐	Jimmy Hoffa ☐	Jimmy Hoffa ☐
Clark Kent ☐	Clark Kent ☐	Clark Kent ☐
Jodie Foster ☐	Jodie Foster ☐	Jodie Foster ☐
Harry Stack Sullivan ☐	Harry Stack Sullivan ☐	Harry Stack Sullivan ☐
Holly Recchia ☐	Holly Recchia ☐	Holly Recchia ☐
Clive Staples Lewis ☐	Clive Staples Lewis ☐	Clive Staples Lewis ☐
Anne Rice ☐	Anne Rice ☐	Anne Rice ☐
Luke Skywalker ☐	Luke Skywalker ☐	Luke Skywalker ☐
Emma Bovary ☐	Emma Bovary ☐	Emma Bovary ☐
Harry Leroy ☐	Harry Leroy ☐	Harry Leroy ☐
William Bukowski ☐	William Bukowski ☐	William Bukowski ☐
Gordon Rosenoff ☐	Gordon Rosenoff ☐	Gordon Rosenoff ☐
Darth Vader ☐	Darth Vader ☐	Darth Vader ☐
Virginia Wolf ☐	Virginia Wolf ☐	Virginia Wolf ☐
Marcus Aurelius ☐	Marcus Aurelius ☐	Marcus Aurelius ☐
Margaret Atwood ☐	Margaret Atwood ☐	Margaret Atwood ☐
Anna Karenina ☐	Anna Karenina ☐	Anna Karenina ☐
Nina Howe ☐	Nina Howe ☐	Nina Howe ☐
Jean Piaget ☐	Jean Piaget ☐	Jean Piaget ☐

Draft

Appendix F

Network of Relationships Inventory

Family Composition

Draft

1. Who do you live with on a regular basis? *(fill in all the boxes that apply)*

☐ Mother   ☐ Stepsister(s)
☐ Father   ☐ Stepbrother(s)
☐ Stepmother   ☐ Half-sister(s)
☐ Stepfather   ☐ Half-brother(s)
☐ Sister(s)   ☐ Other (please specify): _____
☐ Brother(s)

2. If you have siblings, what ages are they? *(Write the number of siblings and the age of each sibling)*

Sister(s)	Brother(s)
Number of sisters: ☐ Age(s): _____	Number of brothers: ☐ Age(s): _____
STEP-Sister(s)	STEP-Brother(s)
Number of STEP-sisters: ☐ Age(s): _____	Number of STEP-brothers: ☐ Age(s): _____
HALF-Sister(s)	HALF-Brother(s)
Number of HALF-sisters: ☐ Age(s): _____	Number of HALF-brothers: ☐ Age(s): _____

3a. Are your parents separated or divorced? ☐ No   ☐ Yes

If you answered YES to 3a, please answer the following question. (Only write in the box that applies to you.)

3b. How often do you see your father (if you regularly live with your mother) and how much time do you spend with him? Example: *I see my dad for a weekend every two weeks.*

How often do you see your mother (if you regularly live with your father) and how much time do you spend with her? Example: *I see my mom for a weekend every two weeks.*

Now we are going to ask you some questions about how you get along with your mother, your father, one of your siblings and your best friend.

First, we would like you to identify the mother figure, the father figure, the sibling, and the friend about whom you will be answering the questions.

1. Fill in the box corresponding to the person who you will be describing as your **mother**. (If there is more than one, choose the one you think of as most important.)

☐ Biological Mother   ☐ Step-Mother

☐ Adopted Mother   ☐ Other (please specify): _____

Family Composition

Draft

2. Fill in the box corresponding to the person who you will be describing as your **father**. (If there is more than one, choose the one you think of as most important.)

☐ Biological Father   ☐ Step-Father

☐ Adopted Father   ☐ Other (please specify): _____

3. Please choose the **brother or sister** who is closest in age to you. (If you do not have a sibling, skip to question number 4.)

Your sibling is a: ☐ Boy   ☐ Girl   How old is s/he? [ ] years old

4. Please choose the most important **friend** you have in school now. **Do not choose a sibling.**

Your friend's name: First name: _____ Last name: _____ [ ][ ][ ][ ]

Your friend is a: ☐ Boy   ☐ Girl   How old is s/he? [ ] years old

Now we would like you to answer questions about the four people you have just chosen.

PART 1

	Almost Never		Some-times		Almost Always
1. How often do you turn to this person for support with personal problems?					
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
2. How often do you and this person get upset or mad at each other?					
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
3. How often do you and this person get on each other's nerves?					
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
4. How much do you talk about everything with this person?					
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
5. How often does this person identify your weaknesses or put you down?					
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
6. How often do you play and have fun with this person?					
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Draft

NRI

	Almost Never		Some-times		Almost Always

7. How much does this person punish you?

	Almost Never		Sometimes		Almost Always
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

8. How often do you count on this person for help, advice or comfort?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

9. How often do you and this person disagree and argue?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

10. How often do you and this person get annoyed with each other?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

11. How much do you share your secrets and private feelings with this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

12. How often does this person criticize you?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

13. How often do you go places and do enjoyable things with this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

14. How much does this person discipline you for disobeying him/her?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

15. When you are feeling sad or upset, how often do you count on this person to cheer you up?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

NRI

	Almost Never		Some-times		Almost Always

16. How often do you and this person have arguments?

	Almost Never		Some-times		Almost Always
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

17. How much do you and this person hassle or nag one another?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

18. How much do you talk to this person about things that you don't want others to know?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

19. How often does this person say mean things to you?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

20. How much does this person tell you that you are doing things you are not supposed to do?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

PART 2

	Little		Some		A lot

21. How much free time do you spend with this person?

	Little		Some		A lot
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

22. How much does this person help you with things you can't do by yourself?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

23. How much does this person like or love you?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

24. How much do you like or love this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Draft

NRI

	Little		Some		A lot

25. How much does this person protect and look out for you?

	Little		Some		A lot
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

26. How much does this person really care about you?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

27. How much do you really care about this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

28. How much does this person take care of you?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

29. How much does this person have a strong feeling of affection (loving or liking) toward you?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

30. How much do you have a strong feeling of affection (loving or liking) toward this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

PART 3

	Not at all		Somewhat		Extremely

31. How satisfied are you with your relationship with this person?

	Not at all		Somewhat		Extremely
Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

32. How sure are you that this relationship will last no matter what?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

33. How good is your relationship with this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

NRI

	Not at all		Somewhat		Extremely

34. How sure are you that this relationship will last regardless of fights?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

35. How happy are you with the way things are between you and this person?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

36. How sure are you that this relationship will continue in the years to come?

Mother:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Father:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sibling:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Friend:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5