

THROUGH A NEW WINDOW: A NEW LOOK AT FRIENDSHIP
QUALITY AND ADJUSTMENT DURING ADOLESCENCE

by

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ABSTRACT

In the present study, the quality of one's friendship with both same-sex and opposite-sex best friendships in preadolescence and adolescence was examined as having special significance for psychological development. Specifically, this study was conducted to explore the relationships among seven aspects of friendship quality (Self-Disclosure, School Help, Conflict, Shared Experience, Trust/Loyalty, Validation/Caring, and Closeness) and psychosocial adjustment (Self-Worth, Depression and Alienation), and how these relationships varied as a function of age (grade five, eight and eleven) and gender. In examining the findings, a complex pattern emerged, suggesting that the various aspects of friendship quality were differentially related to particular indices of adjustment. Moreover, the relations between friendship quality and various indices of adjustment were found to vary developmentally across the adolescent period and differed for boys and girls.

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CHAPTER I

Introduction

"Countless writers from Aristotle's day to the present have extolled close friendships as the most rewarding and satisfying of all human relationships" (Savin-Williams & Berndt, 1990, p.277). Indeed, it has been found that, especially during the teen years, friends are the best part of an adolescents' daily life (Csikzentmihaly & Larson, 1984) and this emphasis on friendships is reflected by the incredible amount of time adolescents spend with their friends. Csikzentmihaly and Larson have demonstrated that time spent interacting with friends becomes increasingly important during adolescence as time interacting with parents decreases. They further suggest that "teenagers love being with each other-almost more than they crave food" (p. 155).

Because of the importance that preadolescents and adolescents place on friendships (Berndt, 1982; Buhrmester & Furman 1987; Greenberg, 1983; Furman & Buhrmester, 1985), many researchers have tried to capture the meaning of these friendships and their influence on adolescents personal adjustment (Berndt, 1988). As will be demonstrated, there is a burgeoning literature which supports long-held theoretical arguments (e.g., Piaget, 1967; Sullivan, 1953) that peer relationships play a critical role in social-emotional development.

Problem Statement

Given research and theory (to be reviewed) indicating that peer relationships and especially friendships are critical to adolescent development and adjustment, the present research examines the role of one critical aspect of friendships for adjustment during adolescence: intimacy or quality of the friendship. Although there is some evidence to

suggest that friendship quality is particularly critical to adjustment, the form and impact of friendship quality as related to adjustment is expected to vary as a function of age and gender across the adolescent years. Thus, the present study examines how friendship quality is associated with various aspects of adjustment, and how these dimensions of friendship quality as well as their relationships with adjustment vary as a function of age and gender across the adolescent years.

Rationale

Both research and theory (to be reviewed below) suggest that peer relationships are critical to adolescent development and adjustment. For example, friendships affirm one's identity (Berndt, 1982), assist in the socialization process by bolstering self-worth (Sullivan, 1953), and provide an opportunity to enhance social skills (Reis, Senchak, & Solomon, 1985). The importance of peers has often been demonstrated by considering the outcomes associated with inadequate interpersonal relationships. Although not focusing on friendship per se, research examining the long-term outcomes associated with peer rejection or non-acceptance has shown that rejected or disliked children are more likely to face a number of difficulties later in life including mental health problems, juvenile delinquency and dropping out of high school (see Parker & Asher, 1987 for a review).

Friendships, in particular, may be an important factor in adjustment over and above acceptance/rejection. Emphasized in the literature are aspects of friendships that can damage or hinder the adolescent's personal adjustment. For example, lack of friendships may lead to later psychological difficulties in adolescence and in adulthood. Several studies looking at friendships of disturbed or "at risk" populations have found the lack of quality of the friendships predictive of poor psychological adjustment (Feltham, Doyle, Schwartzman, Serbin, & Ledingham, 1985; Roff, Robins & Potlack, 1972). Furthermore, the positive qualities of peer relationships during adolescence have been

found to facilitate school and academic adjustment (Berndt & Keefe, 1992; Bonney, 1971; Kurdek & Sinclair, 1988; Ladd, 1990; Ledingham, 1981; Parker & Asher, 1987; Roff, Sells, & Golden, 1972). Within this literature, researchers have begun to see how essential it is to investigate friendship quality as playing a critical role in adjustment. However, as will be demonstrated below, researchers have also begun to agree that operationalizing friendship quality as a single construct is unjustifiable, and research designed to explore correlates and predictors of friendship quality must acknowledge and respond to this complexity in adolescent friendship. Accordingly, friendship quality is increasingly recognized as a multidimensional construct that cannot be encompassed by focusing only on a univariate dimension. To date, no one has yet examined separately how various aspects of friendship quality may play a role in facilitating adjustment nor how the importance of friendship quality varies developmentally and by gender. In sum, existing research suggests that the quality of peer relationships are associated with socioemotional and academic adjustment, with particular emphasis on the importance of friendship quality as a critical factor in facilitating adjustment. However, if we are to fully understand how friendship quality contributes to adjustment much more needs to be done in examining various aspects of friendship quality in general (Hartup, 1993). Further, more research is needed in examining both the positive and negative aspects of friendships (Berndt, 1992).

Purpose

The purpose of the present study is to investigate how different aspects of friendship quality are related to various forms of adjustment, and how these relationships vary as a function of age and gender. Specifically, the present research addresses three major questions. First, how does the experience of friendship quality vary as a function of the age and or gender of the individual? Second, will the qualities which predict closeness

in a friendship be different for boys and girls? Third, are different aspects of friendship quality more important in contributing to different forms of adjustment depending on the age and sex of the individual? These questions are addressed in terms of best friendships with both members of the same-sex and opposite-sex.

CHAPTER II

Literature Review

Introduction

Adjustment during the teen years is a highly complex phenomenon with many factors contributing to its progression and inhibition. Various theories have focused on the influence of family patterns, parental roles, genetic predisposition's, and other psychosocial and psychological variables as they affect teen adjustment. For the purposes of the present study, a selective review of relevant research examining the diverse influence of peer relationships on adjustment is presented. Of interest are the friendship factors that facilitate or inhibit socioemotional well-being during the adolescent years.

Friendships versus Peer Acceptance

Two aspects of peer relationships have been distinguished as important to adolescence adjustment: overall peer acceptance and friendship. Peer acceptance typically refers to one's overall popularity, acceptance, likeability or social status within an established peer group (e.g., the classroom). Friendships refer to close dyadic relationships established with specific individuals. Furman and Robbins (1985) suggested that peer acceptance offers the individual a sense of belongingness, while friendship provides the individual with affection, intimacy, and loyalty. Thus, peer acceptance and friendship provide different social experiences that may be independently related to various aspects of adjustment. In an empirical test of this postulate, Bukowski, Hoza, and Newcomb (1987) found that peer acceptance affected children's sense of social competence (social self concept), while friendships affected children's feeling of overall self-worth. Thus both peer acceptance and friendships appear to contribute to one's self

perceptions, although in somewhat different ways. Extending this notion, Bukowski (1993) argued that there are four ways in which peer acceptance (popularity) and friendship may relate to adjustment: 1) popularity and friendship are both uniquely related to adjustment, 2) popularity is related to adjustment via an association with friendship, 3) friendship is related to adjustment via an association with popularity, and 4) popularity and friendship are linked to different aspects of adjustment. In attempting to distinguish among these alternatives, Bukowski asked 169 early adolescent boys and girls to complete questionnaires on popularity (sociometric preference), friendship quality and feelings of loneliness and dissatisfaction with peer relationships. Bukowski found that although significant relations were observed between popularity and loneliness (i.e., more popular adolescents expressed less loneliness), friendship mediated the link between popularity and loneliness. Thus, although unpopular adolescents may not feel like they belong to a group, they report less loneliness when they were involved in a secure relationship with a best friend. In accord with these findings, Vernberg (1990) found that a sense of social acceptance is closely linked to experiences with peers and friendship serves as a buffer for those adolescents who may experience rejection by peers. Similarly, Parker and Asher (1993) found that both peer acceptance and friendship were independent predictors of loneliness and, when combined, friendship was significantly related to reported loneliness over and above the influence of peer group acceptance. Finally, Townsend, McCracken, and Wilton (1988) also found that having high self-esteem in early adolescence was more dependent on having a close friendship with a peer than on being relatively popular with a number of peers.

Taken together, the results of these studies suggest that peer acceptance and friendship offer different experiences to the adolescent and contribute to adjustment in unique and different ways. Although peer acceptance may affect one's sense of social belonging, while friendships affect one's sense of self-worth, both contribute uniquely to

one's social satisfaction. Moreover, it appears that the friendship relationship may serve as a buffer against the feelings of loneliness and social dissatisfaction that often accompany peer rejection and/or isolation (McGuire & Weisz, 1982; Parker & Asher, 1993; Townsend, Cracken, & Wilton, 1988). In light of these findings, the unique features of adolescent friendships warrants further investigation, especially in terms of the specific aspects of friendship that affect adjustment over and above peer acceptance.

Friendships and Adjustment

Various aspects of friendship have been thought to play a particularly important role in the facilitation or inhibition of adjustment. To date, researchers have considered two major aspects of friendships as they are related to adjustment: the mere experience of participation in a friendship and the quality of the friendship relation. Research relevant to each of these aspects of friendship is reviewed below.

Participation in Friendships and Adjustment

Sullivan (1953) argued that the experience of a friendship, especially during adolescence, would be associated with higher self-worth. In the past fifteen years, results of several studies would appear to support Sullivan's hypothesis. Mannarino (1978) compared grade six students with a best friend to those who did not have a best friend and found that those students who had a best friend reported significantly higher self-concepts. McGuire and Weisz (1982) found that preadolescents (grades five and six) who had a best friend demonstrated significantly higher affective perspective taking skills (i.e., being able to infer what another is feeling) and altruistic behavior than those without a best friend. They also found that popularity was not related to affective perspective taking or altruism. Bukowski and Newcomb (1987) were also interested in comparing friended and friendless preadolescents and found that grade four and five students with a mutual

friend reported higher feelings of general self-worth as well as more positive self-concepts in the cognitive and social domains. In addition, Townsend et al. (1988) found that self-esteem was greater for those eighth grade students with an intimate friend than for those students who did not have an intimate friend. Taken together, results of these studies consistently indicate that adolescents who participate in a friendship seem to demonstrate better levels of adjustment as reflected in reported self-esteem and self-concept than those who are not involved in close friendships. However, not only did Sullivan (1953) argue for the importance of having a best friend, he also argued that it is the quality of the friendship that really contributes to adjustment during adolescence.

Friendship Quality and Adjustment

Sullivan (1953) was very specific in his writings on how the quality of a friendship contributes to adjustment. He proposed that it is through intimate conversations with friends that an adolescent's ideas are validated and respected, which increases and is critical to the adolescent's self-worth. In contrast, other theorists have suggested that intimate conversations with friends may be harmful for adjustment. For example, Mechanic (1983) has forcefully stated that intimate conversations with friends may lead to a focus on personal problems and overemphasis on unhealthy feelings, thereby increasing psychopathology. Although the empirical data on the relationships between friendship quality and adjustment is very limited, several recent researchers have provided evidence supporting Sullivan's claim regarding the positive associations between friendship quality and various indices of adjustment in adolescence (e.g., Bohrnstedt & Fisher, 1986; Claes, 1992; Fine, 1980; Greenberg, 1983).

Townsend et al. (1988) found that friendship quality, defined as self-disclosure, was significantly related to self-esteem in a thirteen-to fifteen-year-old adolescent population. Vernberg (1990) used causal analysis to examine the relationship between

intimacy within a friendship (defined as self-disclosure) and adjustment and found that a combination of lack of closeness with a best friend, less contact, and greater rejection experiences contributed to an increase over time in depression in grade eight students. These results support the hypothesis that friendship quality affects adolescent adjustment. It should be noted that in these studies, friendship quality was defined almost exclusively in terms of self-disclosure. However, as will be seen, other aspects of friendships have also been shown to be related to adjustment.

Parker and Asher (1993) expanded their definition of friendship quality to include not only self-disclosure but also validation/caring, conflict/betrayal, companionship/recreation, help/guidance, and conflict resolution. They found that all of these aspects of friendship were significantly related to loneliness among grade three and five students, with greater loneliness reported by students who described their friendships less positively across these dimensions. Bukowski, Hoza and Newcomb (1987) considered three aspects of friendship quality: a) closeness (defined as self-disclosure, attachment and validation); b) support (defined as prosocial behavior and loyalty) and c) general friendship (defined as play, association and conflict resolution). Bukowski et al. found that self-disclosure, attachment and validation (closeness) were causally and positively connected to children's reported self-worth.

In sum, these studies provide empirical support for the notion that friendship quality is very important to an adolescents' well-being. However, the research to date is limited in that most researchers have typically defined friendship quality in terms of self-disclosure. Results of the Parker and Asher (1993) research, however, suggest that a variety of different aspects or qualities of friendship may be important to adjustment in addition to intimacy. Further, those studies that have measured friendship quality have been limited in that they have not differentiated various aspects of friendship quality (Hartup, 1993), relying primarily on definitions of intimacy which highlight self-

disclosure as the primary consideration. In the present study, multiple aspects of friendship quality are investigated in order to capture the many aspects of intimacy that may be crucial to the development and well-being of the adolescent. Of particular interest to the present research are studies indicating that "friendship quality" may vary as a function of the sex of the individuals involved. A review of these studies follows in the next section.

Sex Differences in Friendship Quality

Most studies examining sex differences in friendship quality have found that females report higher levels of friendship quality than males (Claes, 1992; Douvan & Adelson, 1966; Hunter & Youniss, 1982; Jones & Dembo, 1989; Sharabany, Gershoni, & Hofman, 1981; Rivenbark, 1971), although not all studies have considered sex differences (e.g., Berndt & Perry, 1986) and not all studies have reported significant sex differences in intimacy (e.g., Furman & Buhrmester, 1985). However, in those studies which have demonstrated that females report greater friendship quality than males, friendship quality has been primarily defined in terms of self-disclosure (Berndt, 1982; Reis et al., 1985; Reisman, 1990). Furthermore, studies directly examining self-disclosure within relationships have also reported significantly greater levels of self-disclosure between same-sex female relationships than between same-sex male relationships (Buhrmester, 1990; Camarena, Sarigiani, & Petersen, 1985; Douvan & Adelson, 1966; Parker & Asher, 1993; Townsend, Cracken, & Wilton, 1988; Reis et al., 1985; Reisman, 1981). For example, Townsend et al. (1988) found that fourteen-year-old girls disclosed to their same-sex close friends significantly more than did similar aged boys. Dolgin et al. (1991) found that females were more disclosing and were the recipients of more self-disclosure than were males. Buhrmester and Furman (1987) found that eighth grade girls reported significantly higher levels of self-disclosure with their same-sex best friends

than did eighth grade boys. Thus, numerous studies have consistently documented sex differences in intimate self-disclosure with girls' same-sex friendships characterized as higher in self-disclosure than boys' friendships.

There are several reasons why girls may exhibit greater self-disclosure in their friendships than boys. One suggestion put forth by researchers has been that the observed sex differences in friendship quality are in part attributable to sex differences in the nature of male versus female relationships. Girls tend to engage in more dyadic relationships while boys are more likely to participate in larger, hierarchically organized play groups, which are less conducive to the development of intimate friendships (Eder & Hallivan, 1978; Maccoby, 1990). Reis et al. (1985) offered several other explanations for the observed sex differences in friendship quality. First, they suggested a selectivity hypothesis, arguing that males choose to interact intimately only with selective same-sex best friends on selected occasions. To test this hypothesis, they compared males and females with best friends versus other friends in terms of self-reported intimate self-disclosure. Contrary to their selectivity hypothesis, they found that both males and females rated their interactions with very best friends as more intimate than their interactions with other friends, although even among best friends, females rated their same-sex relationships as more intimate than did males.

Second, Reis et al. (1985) suggested a "capacity hypothesis," arguing that males do not have the ability to interact as intimately as females do. To test this hypothesis, subjects and their best friends were videotaped to see if male-male and female-female dyads would differ in their level of intimate conversation. Contrary to their capacity hypothesis, they found that males and females did not differ significantly in their conversational intimacy.

The third hypothesis proposed by Reis et al. (1985) was a "labeling" hypothesis, suggesting that males may be more reluctant to label their interactions as intimate than

are females. This hypothesis was evaluated by examining sex differences in written conversation narratives of intimacy between same-sex males and same-sex females. Contrary to their labeling hypothesis, they found that males and females did not differ in terms of their willingness to label their own interactions as intimate.

Finally, Reis et al. (1985) suggested a “stereotype” hypothesis, arguing that individuals act in accordance with certain socially prescribed gender roles and that intimacy is stereotypically associated with females rather than males. Thus, conversations among females should be perceived as more intimate than conversations among males, even though the content of the conversation is the same. To test this hypothesis, ten standard intimate conversations were videotaped between males and female dyads (i.e., the same conversation was used for both male and female pairs). Subjects were later asked to judge each transcript in terms of intimacy. However, conversations between females on the tapes were not perceived as more intimate than the same conversations between males, thus disconfirming the stereotype hypothesis.

An alternative and more promising hypothesis has emerged from research by Camarena et al. (1990) who suggest that boys and girls experience friendship quality differently and that these differences contribute to the sex differences observed in friendship quality. Specifically, they suggest that researchers have measured friendship quality by focusing primarily on self-disclosure. By only operationalizing friendship quality in terms of self-disclosure, empirical studies may have failed to account for male experiences of friendship quality that may be fundamentally different from that of females. In other words, Camarena et al. suggest that males may experience friendship quality in their friendships, to the same extent as females, but for males, friendship quality may be defined by behaviors other than self-disclosure. Camarena et al. further suggest that self-disclosure can be independent of intimacy, as not all self-disclosure can be characterized as intimate or close. Accordingly, Camarena et al. hypothesized that

friendship quality should be defined in a variety of ways, including emotional closeness and shared experience as well as self-disclosure, and suggested that sex differences in reported levels of friendship quality would vary depending on which of these types of intimacy are considered. Camarena et al. further hypothesized that self-disclosure and shared experience should be viewed as pathways to gaining emotional closeness or intimacy experiences. Specifically, boys may be more likely to achieve intimacy or closeness through shared experience, while girls may be more likely to achieve intimacy or emotional closeness through self-disclosure. These arguments are consistent with studies conducted on children's friendships, demonstrating that girls' friendships center around talking, while boys' friendship center around shared activities (e.g., Lever, 1976).

To test their first hypothesis, that gender differences in friendship intimacy varies depending on how intimacy is operationalized, Camarena et al. (1990) asked 178 eighth grade students to respond to three questionnaires, each distinguishing a separate aspect of intimacy. In this study, "Emotional closeness" reflected levels of unconditional acceptance, understanding, satisfaction with the friendship and the value or importance of the friendship. "Self-disclosure" was defined in terms of shared feelings and reciprocated advice with a close friend. "Shared experience" was defined in terms of frequency of interaction with a close friend in a variety of contexts. In comparing each type of friendship quality separately, mean differences revealed that males and females showed significant differences on the self-disclosure questionnaire, with females reporting significantly greater self-disclosure than males. Significant differences were also observed on the emotional closeness subscale, with females reporting significantly greater emotional closeness than males. Finally, on the scale measuring shared experience, no significant sex differences were observed. Thus, although females reported greater self-disclosure and emotional closeness than males, males and females did not differ in terms of reported shared experience in their friendships.

Camarena et al. (1990) then operationalized three dimensions of friendship quality based on definitions previously utilized in the literature, including: 1) emotional closeness, 2) emotional closeness plus self-disclosure, and 3) a combination of emotional closeness, self-disclosure and shared experience. Subjects were asked to rate their close friend on these dimensions. Their findings indicated that girls reported higher levels of friendship quality than boys on all three definitions with the greatest difference found when friendship quality was defined in terms of both emotional closeness and self-disclosure, followed by definitions that included all three aspects of friendship quality (emotional closeness, self-disclosure and shared experience).

Of particular relevance to the present study was the second hypothesis proposed by Camarena et al. (1990), that shared experience and self-disclosure can be viewed as different paths to achieving emotional closeness. In addressing this hypothesis, they found that self-disclosure was a significant predictor of emotional closeness for both males and females, although the relationship here was stronger for females than for males. However, for males, but not females, shared experience was also a significant predictor of emotional closeness. These results suggest that for females, the path to achieving emotional closeness is through self-disclosure, while for males, the path to achieving emotional closeness may be through shared experiences, although males do also self-disclose.

The hypothesis that males and females differ in the specific nature of friendship quality experienced within their friendships is also supported by research conducted by Sharabany et al. (1981) with Israeli preadolescents (fifth graders). Based on arguments initially put forward by Douvan and Adelson (1966), Sharabany et al. suggested that, in contrast to females, males "de-emphasize the affective components (e.g., emotional support and understanding, trust and loyalty) and stress the instrumental aspects (e.g., 'they support one another in trouble and meet specific concrete needs,' (p.801) within

friendships. Accordingly, Sharabany et al. distinguished eight different aspects of friendship quality in their research: (1) frankness and spontaneity, (2) sensitivity and knowing, (3) attachment, (4) exclusiveness, (5) giving and sharing, (6) imposing and taking, (7) trust and loyalty, (8) common activities. Sharabany et al. found that females generally reported greater overall friendship quality in their same-sex friendships than males. However, consistent with hypotheses that males and females would only differ in specific aspects of friendship quality within their same-sex relationships, they also found that when specific aspects of friendship quality were considered separately, males and females only differed in terms of three of the eight dimensions (females greater than males): attachment, giving and sharing, and trust and loyalty.

Consistent with the results of Camarena et al. (1990) and Sharabany et al. (1981) are findings from numerous studies of college students indicating that females and males differ in the nature of their interactions with friends. Generally, results of these studies suggest that females prefer talking, while males prefer sharing activities (Aukett, 1988; Burke & Fuqua, 1987; Caldwell & Peplau, 1982; Dolgin et al., 1991; Hedgeson et al., 1987; Jones et al., 1990; Klos & Loomis, 1978; Lang-Takac & Osterwiel, 1992; Monsour, 1992; Sprecher, 1987; Wright, 1982). For example, Aukett et al. (1988) found that more women (58%) than men (18%) preferred talking to doing an activity with a same-sex best friend, and women discussed more personal problems with a same-sex best friend than did men (72% of females versus 36% of males). Consistent with the Aukett et al. results, Lang-Takac and Osterwiel (1992) found that females were more connected in their friendships, recognizing the need for sharing feelings and closeness, while men were more separated and independent in their relationships. Jones et al. (1990) found that female friends were more likely to self-disclose information about their feelings, while men were more concerned with sharing activities with same-sex friends. Caldwell and Peplau (1982) found that females considered their close friendships to be based upon

shared feelings and self-disclosure, while males considered their close friendships to be based upon shared interests and activities.

In summary, numerous empirical studies have consistently documented sex differences in friendship quality with female friendships being characterized as more intimate than male friendships. Although there have been many explanations to account for this sex difference, recent investigators have come to the conclusion that the answer may lie in the way boys and girls experience intimacy and thus the way intimacy has been defined or operationalized. Findings reported by Camarena et al. (1990) and Sharabany et al. (1981) demonstrate that sex differences in friendship quality vary depending on the chosen operational definition, and suggest that males and females may simply differ in the way they demonstrate intimacy. Specifically, females may develop intimacy or emotional closeness through self-disclosure, while males gain an equally intimate closeness through shared activity. Hence, in the present study, when examining whether friendship quality varies as a function of sex, it is argued again that friendship quality must be defined multidimensionally to take into account the sex differences in intimate experiences observed in the literature. Further, when examining whether closeness is differentially predicted for boys and girls, it is necessary to consider multiple aspects of friendship quality to take into account friendship quality aspects relevant for both females and males. In addition, when examining whether friendship quality is perceived to be differentially significant to adjustment depending on sex of the subject, various aspects of friendship quality must be taken into account due to varying importance of differential aspects for boys and girls.

Age Changes and Friendship Quality

Empirical findings have also indicated that the experiences of friendship quality within peer relationships varies as a function of age. Relevant here is research on the

development of friendship understanding conducted by several investigators, most notably, Bigelow and LaGaipa (Bigelow, 1977; Bigelow & LaGaipa, 1975; LaGaipa, 1980) and Selman (1981) who hypothesized that children's understanding of friendships develops in stages, much like those identified for moral and/or cognitive development. In these studies, children of different ages were asked to describe their expectations for friendship and/or what they considered important in friendship. Results of these studies revealed consistent, age-related changes in children's friendship conceptions, with younger children emphasizing concrete and behavioral characteristics such as proximity, possessions, shared common activities, and older children (around 11 -13 years) emphasizing more internal and abstract characteristics such as self-disclosure, trust, loyalty and genuineness (Bigelow, 1977). Of particular interest to the present study are findings indicating that children begin to emphasize such characteristics as intimacy in their friendships during the later elementary years, with the focus on intimacy peaking at about the sixth or seventh grade (Bigelow & LaGaipa, 1980). Moreover, studies have indicated that girls tend to emphasize intimacy as a critical aspect of friendship earlier than do boys (e.g., Sharabany et al., 1981). The observed developmental increase in emphasis on intimate self-disclosure is consistent with Sullivan's (1953) notion that a need for intimacy and self-disclosure emerges during preadolescence due to an increased desire for the consensual validation of personal worth.

Other studies have considered developmental changes in children's evaluation of the intimacy that exists within their current friendships (as opposed to their ideas about friendship in general). Results of several of these studies have also shown age-related increases in the level of friendship quality children report within their friendships. For example, Hunter and Youniss (1982) assessed the experience of friendship quality in students from grades 4, 7, 10 and college students, with friendship quality defined in terms of four items tapping empathy, companionship, self-disclosure, and consensus

information. They found that when all four items were combined, reported intimacy increased significantly across the age groups considered. Similarly, Furman and Buhrmester (1992) found that reported levels of friendship quality within friendships was significantly greater among seventh and tenth graders than among fourth graders. Finally, Jones and Dembo (1989) looked at reported friendship quality in friendships among children in three age groups (9/10; 11/12; 13/14). They found that friendship quality, defined in terms of frankness/spontaneity, sensitivity/knowing and exclusiveness, increased significantly with each age group considered. Thus several studies have consistently demonstrated that the experience of intimacy in friendship increases with age into adolescence.

There is also some evidence to suggest that these developmental changes in the experience of friendship quality may vary as a function of the sex of the child. For example, Jones and Dembo (1989) found that females showed significant increases in reported friendship quality from ages 9/10 to ages 11/12 and 13/14, although males showed no significant increases in reported friendship quality over the same age period. Moreover, sex differences in reported intimacy, favoring females, were only significant in the two older age group studies. Similarly, in a study of second, fifth, and eighth graders, Buhrmester and Furman (1987) found that ratings of intimate self-disclosure in friendships increased significantly from grade five to eight for girls, but not for boys. Not all studies have demonstrated this type of interaction of age and sex differences in reported friendship quality, however. For instance Sharabany et al., (1981) examined variations in reported friendship quality among Israeli boys and girls in grade 5, 7, and 11, considering both overall quality and 8 different aspects of friendship quality (as described previously). They also assessed reported friendship quality in both same-sex and opposite-sex relationships. With regard to reported overall friendship quality within same-sex relationships, they found significant increases as a function of age (older

children reporting greater intimacy) and sex (girls reporting more intimacy than boys), but no significant sex by age interaction. However, with regard to overall friendship quality reported within opposite-sex friendships, Sharabany et al. found a significant sex by age interaction, indicating that, although reported friendship quality was low for both boys and girls in the fifth grade, girls reported increasing levels of friendship quality in opposite-sex relations with age, resulting in "a growing discrepancy between the relations of boys and girls to their opposite-sex friends" (p.803). When distinct aspects of friendship quality were considered, age and sex differences were observed to vary. For same-sex friendships, age differences were observed in five of the eight dimensions of friendship quality considered. Specifically, friendship quality, when defined in terms of frankness/spontaneity, knowing/sensitivity, was found to increase linearly with age, while friendship quality defined in terms of attachment, exclusivity, and giving/sharing also varied with age, but not in a linear fashion. As noted earlier, older girls reported higher levels of friendship quality in opposite-sex friendships than older boys for three of the eight dimensions (knowing/sensitivity, giving/sharing, taking/imposing). A significant sex by age interaction indicated that sex differences in reported friendship quality were only evident in the older age groups and only for two dimensions of friendship quality. Specifically, older girls reported greater attachment and trust/loyalty in their friendships than did older boys.

On the basis of these findings, the present study was designed to examine how different aspects of friendship quality vary as a function of age for boys and girls, with friendship quality operationalized multidimensionally. Of additional interest was whether various aspects of friendship quality (multidimensionally defined) are differentially important to well-being depending on the age of the individual. In addition, based on differences observed by Sharabany et al. (1981) for same-versus opposite-sex relationships, the present study considered multiple aspects of friendship quality as

evidenced in friendships with same-sex as well as opposite-sex peers. Of primary interest, however, was whether these multidimensional aspects of friendship quality, which appear to vary with age, sex and the nature of the relationship (same-sex vs. opposite-sex) differentially predict adjustment, as discussed in the next section.

Age Changes, Gender, Friendship Quality and Adjustment

Given the studies reviewed above indicating that the experience of friendship quality may well vary as a function of both the age and sex of the individual, one may question the validity and generalizability of previous findings concerning the links between friendship quality and adolescent adjustment. Although previous research has not adequately examined the relations between friendship quality and adjustment as a function of both sex and age variations in intimacy, a few studies are relevant here. Addressing the issues of age differences, Buhrmester (1990) examined whether friendship quality was more related to socioemotional adjustment during adolescence or preadolescence. His results provided clear evidence that friendship quality (defined primarily in terms of self-disclosure) was more related to adjustment during adolescence than preadolescence. This investigation was limited, however, due to the narrow definition of intimacy (self-disclosure) employed.

In a more recent study, Claes (1992) evaluated how certain characteristics of friendships were related to several aspects of personal adjustment as a function of gender and age. To test his question, Claes asked 349 French-speaking adolescents from three age groups (12-13 years, 14-15 years, and 16-18 years) to respond to a questionnaire measuring several aspects of friendship, including: expectation toward friends, attachment to intimate friends, shared intimacy with best friends, and conflict with friends. Personal adjustment was assessed by means of subscales of Offer's (1981) Self Image questionnaires, including: emotional tone, impulse control, mastery of external

world, and psychopathology. Results of the study indicated that reported friendship quality varied as a function of the sex and age of the adolescents, although no significant interactions were observed. Specifically, females obtained higher scores on almost every aspect of friendship quality assessed. With regard to age effects, reported empathy and sharing were found to significantly increase with age, while reported attachment with a best friend remained stable across ages. These reported age and sex differences are not unlike those reported in previous studies.

Of primary interest to the present study, however, were findings regarding the relations between reported friendship quality and indices of adjustment. Results of correlational analyses indicated that reported attachment in friendship was significantly related to all aspects of adjustment. Reported intimacy was significantly and positively related to one aspect of adjustment (mastery of the external world), while reported conflict was significantly and negatively related to all indices of adjustment. These results, however, are only relevant to the sample as a whole, and do not address the issue of whether relations vary across age and sex. In a subsequent regression analysis, Claes (1992) examined the degree to which friendship quality predicted overall adjustment with age and sex entered as part of the analysis. Results indicated that all indices of friendship quality together accounted for 20% of the variance in global adjustment and that age and sex failed to add to this prediction. Therefore, age and sex were not pursued independently. However, it is difficult to judge the adequacy and appropriateness of this analytical approach since it is not clear whether age and sex variables were entered separately or in combination (allowing for the consideration of interaction effects). Moreover, the Claes study is limited in its evaluation of adjustment in that many of the adjustment subscales were not clearly defined or operationalized. Finally, the Claes study did not clearly distinguish those aspects of friendship quality which may be particularly relevant for males (e.g., shared experiences, Camarena et al.,

1990). Thus, the question remains as to whether different forms or dimensions of friendship quality are related to various indices of adjustment and whether these relations vary as a function of the age and/or sex of the adolescent and the nature of the relationship involved (same-sex versus opposite-sex).

Overview of the Present Study

The purpose of the present study was to examine whether various aspects of friendship quality, defined multidimensionally, differed as a function of age, sex or nature of the relationship (Same-Sex and Opposite-Sex) and whether these multidimensional aspects of friendship quality differentially predict overall adjustment. Further, a second focus of the present study was to examine whether closeness was differentially predicted by self-disclosure and shared experience for boys and girls. To examine these questions, male and female students in grade five, eight and eleven were asked to evaluate their relationships with a same-sex best friend as well as an opposite-sex best friend on several different dimensions of friendship quality derived from previous literature. In addition, students were asked to complete several different self-report measures designed to assess their adjustment in several different domains, including self-worth, depression, and social alienation. Using these data, the following questions were investigated:

1) First, as a preliminary question, the present study was designed to examine how the various aspects of friendship quality varied as a function of age, gender and the nature of the relationship (same-sex versus opposite-sex). Based on previous research (Buhrmester & Furman, 1987; Camarena et al., 1990; Douvan & Adelson, 1966; Lepers et al., 1993), it was hypothesized that females would report higher levels of some aspects of friendship quality (e.g., self-disclosure, closeness, validation/caring, and trust/loyalty) within their same-sex best friends, but not others (e.g., school help, shared experience or conflict).

Further, it was hypothesized that females would report higher levels of friendship quality with a same-sex best friend than males, especially with regard to self-disclosure, given similar findings in previous studies (Buhrmester & Furman, 1987; Douvan & Adelson, 1966). For opposite-sex friendships, based on the limited previous research available (Lempers et al., 1993; Sharabany et al., 1981) it was predicted that there would be generally higher levels of reported friendship quality between same-sex friendships than opposite-sex friendships, although reported levels of friendship quality with opposite-sex friends were expected to increase with age.

2) Second, of additional interest was whether boys and girls would have different paths or ways of gaining intimacy when intimacy was defined as closeness. Previous research (Camarena et al., 1990) has suggested that shared experience may be a path to gaining emotional closeness for males and self-disclosure for females. Thus, in the present it was predicted that shared experience would be a path to closeness for males, and self-disclosure a path to closeness for females. It was also predicted that these relationships should vary with age.

3) Third, of primary interest was whether various aspects or forms of friendship quality were more important in contributing to several indices of adjustment, depending on the age and sex of the individual. Based on the limited research available (Buhrmester, 1990; Claes, 1992), and theory (Sullivan, 1953) it was hypothesized that, for the entire sample, self-disclosure, trust and loyalty and conflict would be significantly related to adjustment. Given that previous research has not examined the effects of multiple aspects of friendship quality on various indices of adjustment by age and gender, no specific hypothesis were made regarding how the relations between distinct aspects of friendship quality and adjustment might vary for females versus males or across age groups.

However, following Camarena et al. (1990), it was generally expected that self-disclosure in friendships may be a stronger predictor of adjustment in females, while shared experience in friendships may be a stronger predictor of adjustment in males. Moreover, the present study was also designed to examine, in an exploratory fashion, whether the reported quality of friendship with same-sex versus opposite-sex peers might be differentially associated with various indices of adjustment across age. Of particular interest was whether the quality of opposite-sex friendships might become an increasingly significant predictor of adjustment across the adolescent period as relations with opposite-sex peers become increasingly emphasized.

CHAPTER III

Method

Participants

The subjects who participated in this study were taken from a single school district in a predominantly middle-class, suburban area in southern British Columbia. Specifically, students were recruited from four different schools in the district: two elementary, one junior high school and one senior high school, with all schools servicing students in the same geographic area, thereby reflecting a rather homogenous sample differing only in age. All subjects received parental consent for participation in the study and had English as their first language. A total of three hundred students (53% female, 47% male) participated in the survey. The students ranged in age from ten to eighteen years and were enrolled in grades five (n=53 males, 45 females), eight (n=45 males, 64 females) and eleven (n=41 males, 52 females). Because of the high participation (return) rate overall (90%) and at each grade (5= 94%; 8= 87%; 11= 87%), it was believed that the sample represented the distribution of the students in each of the fourteen classes and their schools. Of the sample, 77.3% were Caucasian, 6.6% were Asian, 5.3% were of mixed heritage, 2.3% were Indo-Canadian, 1.3% were Philippino, 1.0% were Native Canadian, 0.3% were Black, 0.3% were Spanish, with the remaining 1.3% of the sample representing other ethnic backgrounds.

Procedure

The school district agreed to the research study and granted the principal investigator permission to conduct the survey in the district. Initially, letters describing the research were sent to Principals of designated schools and all agreed to conduct the study in their respective schools. Two weeks prior to the start of testing, letters of

consent were sent home with the students to parents or legal guardians describing the purpose of the study and procedures. To encourage students to return their consent forms, students were entered into lottery to win a \$15.00 gift certificate (per class) to the movies for returning parental consent forms on time, regardless of whether permission was granted or not. Informed consent was obtained from all students who received parental permission for the study. Specifically, before administration of the measures, participants were informed that they had the right to withdraw from the study at any time and that all of their responses were confidential and would be used only for research purposes. A copy of the letter to the school district (Appendix A), student recruitment form (Appendix B), parent permission letters (Appendix C) as well as the student informed consent sheet (Appendix D) provided for participants are presented in the Appendices.

All data collection took place in a single group testing session (approximately 90 minutes), conducted during regular classroom periods scheduled at the teachers' convenience and with the teachers present. The administrators were provided with a script to be read to the students detailing the procedures to be followed (Appendix E). During the group testing session, participants were first asked to complete a demographic background questionnaire (Appendix F), and then were asked to identify their three same-sex best friends as well as their three opposite-sex best friends from a list of students enrolled in their grade from school. If their best friends were not on the list, they were asked to include their best friend on the list and proceed. Subsequently, participants were asked to complete questionnaires evaluating the quality of their very best friendship, once for their selected same-sex best friend, and once for their selected opposite-sex best friend. Participants were then asked to complete questionnaires evaluating (a) their feelings of social inclusion versus alienation at school; (b) their general self-concept and overall feelings of self-esteem; and (c) their feelings of depression. All questionnaires

were administered in the regular classroom setting (with the instructor present) by the principal investigator and her assistants. The order of administration of questionnaires was counterbalanced across grades. A detailed description of each measure follows.

Measures

Friendship assessment. Adolescents were asked to identify three same-sex best friends specifying these friends by identification numbers rather than by names. For each identified same-sex best friend, participants were asked to specify (a) how many years they had been friends; and (b) how close they were to each friend relative to all of their friends on a rating of one to four, from casual to close. The same procedure was used to identify three opposite-sex best friends, with order of presentation (same-sex versus opposite-sex) counterbalanced across classes. For each best friend identified, subjects were then asked one open-ended question: "Tell me why you feel especially close to this best friend?", although responses to this question were not analyzed for the present study. A copy of the friendship assessment questionnaire is provided in Appendix G.

Friendship quality. In order to evaluate the quality of each participant's closest best friendship with both a same-sex and an opposite-sex peer, a revised version of the Friendship Quality Questionnaire (FQQ), developed by Parker and Asher (1993), was administered, once with regard to the participant's closest same-sex best friend and once with regard to the participant's closest opposite-sex best friend. The original Friendship Quality Questionnaire consists of 41 items (40 primary items and one warm-up item) that asked students to evaluate their friendship in terms of six separate areas, each tapping a different aspect of friendship quality. The subscales included in the original version of the scale were: 1) validation and caring (e.g., "If my best friend hurts my feelings, he or she apologizes."); 2) conflict resolution (e.g., "If my best friend and I get mad at each

other, we can always talk it out and get over it.”); 3) conflict and betrayal (e.g., “My best friend and I get mad at each other a lot.”); 4) help and guidance (e.g., “I can always count on my best friend for good ideas about how to do things.”); 5) companionship and recreation (e.g., “My best friend and I always spend lunch period together.”); and 6) intimate disclosure (e.g., “My best friend and I can always talk to each other about our problems.”). Previous research has demonstrated the reliability of the original version of this measure when used with preadolescent/adolescent samples (Parker & Asher, 1993). Specifically, the internal reliabilities of the subscales have been found to be quite high, with alpha coefficients ranging from .73 to .90 across subscales. Students respond to each item of the questionnaire on a 5-point scale (YES, yes, sometimes, no, NO) indicating how true a particular quality is of their relationship with their identified best friend.

Several modifications were made to the original FQQ for the purposes of the present study. First, because the FQQ had been developed for use with children from grades three to six, the wording of some of the original items was revised to be more suitable for an adolescent population. For example, an original item, “My friend and I always play together at recess,” was revised to “My best friend and I always hang out during breaks and lunch time at school.” Second, although the original version of the FQQ (with slight modifications in wording, as noted above) was administered in its entirety, additional items were also included to reflect other aspects or dimensions of intimacy which have been suggested in previous research (Camarena et al., 1990; Sharabany et al., 1981) and thought to be particularly relevant to the identification of sex differences in the experience of friendship quality. Specifically, the Intimate Disclosure subscale was increased by five items, with two additional items (“My best friend comes to me for advice.” and “I can go to my best friend for advice.”) derived from Camarena et al. (1990), and three additional items derived from Sharabany et al. (1981) (“I feel free to

talk to my best friend about almost everything.”; “I know I can count on my friend to tell me the truth.”; “I can count on my best friend to tell me what he/she really thinks about me.”). As well, two items were added to the Help and Guidance subscale (“If my best friend wants something, I let him/her have it even if I want it too.” and “I can count on my best friend’s help when I ask for it.”), derived from Sharabany et al. (1981). Finally, an additional subscale was embedded into the questionnaire, based on previous research by Camarena et al. (1990), tapping “Closeness and Satisfaction”. This new Closeness subscale was designed to assess perceived closeness (e.g., “My best friend and I are really close.”). The internal reliability of the original emotional closeness subscale has been previously found to be quite high, with alpha coefficients ranging from .76 to .81 (Camarena et al., 1990). All additional items were randomly inserted into the original FQQ scale. A copy of the final version of the FQQ scale, as presented to subjects in the present study, is provided in Appendix H. Given that modifications were made to the Parker and Asher’s (1993) measure, a factor analysis was conducted to re-evaluate the integrity and coherence of the conceptually-derived subscales, as well as to determine the internal consistency of each subscale (as discussed in the results section). Following factor analyses, responses to items within each resulting subscale were quantified and summed to compute total scores for each dimension of friendship quality, with higher scores indicative of greater degrees of each dimension.

Adjustment Measures

Adolescent adjustment was assessed by means of three different measures in the study: self-worth, depression, and social alienation. Self-worth and depression were chosen as common measures used in previous literature (Buhrmester, 1990; Townsend et al., 1988; Vernberg, 1990). Of additional interest was social alienation, which taps an individual’s perception of rejection and an individual’s lack of positive perception toward

others. Additional measures (i.e., empathy and social self-concept) were also administered, but they were not analyzed for purposes of the present study.

Self-esteem scale. Rosenberg's (1965) Scale of Self-Esteem was administered to obtain a global measure of self-acceptance. This ten-item questionnaire asked adolescents to indicate, on a 5-point scale (YES, yes, sometimes, no, NO), how true a particular statement was for them (e.g., "I feel I have a number of good qualities."). A copy of the scale, as presented to the students, is presented in Appendix I. The test-retest reliability of this scale has been estimated at $r=.85$ in previous research (Townsend et al., 1988) and the scale has shown to have satisfactory internal reliability when used with adolescents ($\alpha = .82$) and preadolescents ($\alpha = .82$) (Buhrmester, 1990). The internal reliability estimate (Cronbach's α ; Cronbach, 1951) obtained in the present study ($\alpha = .75$) was consistent with previous research. Following procedures outlined by Rosenberg (1965), responses to the scale were summed to create a single index of self-esteem, with higher scores indicative of more positive self-esteem.

Reynolds adolescent depression scale (RADS). Reynold's (1987) thirty-item paper and pencil instrument was administered to assess depressive symptomatology in adolescents. Subjects were asked to respond on a four-point scale, ranging from "almost never" to "most of the time," to statements such as "I feel sad," "I worry about school." etc. Responses to the items were quantified (one to four points) and summed to yield a total score (range from 30 to 120), with higher scores indicative of greater degrees of depressive symptoms. The RADS has demonstrated high internal consistency, with alpha coefficients ranging from .90 to .96 in previous research and high correlations with other measures of depression ($r=.71$ to $.89$) (Reynolds 1987; Schonert-Reichl, 1994). In the present study the reliability of this measure was high ($\alpha = .92$) and consistent with

previous research. Because this measure is copyrighted, it is not available in the Appendix.

Social alienation towards classmates(SATC). Seidel and Vaughn's (1991) scale of Social Alienation Toward Classmates (SATC) was administered to obtain a measure of feelings of social alienation versus integration from classmates in school. This twenty-six item questionnaire asks adolescents to indicate on a 5-point scale (YES, yes, sometimes, no, NO) how true a particular quality is for them (e.g., "I have trouble getting along with people in class"). Following procedures outlined by Seidel and Vaughn (1991), student responses to the SATC were summed to create a single score, with higher scores reflective of stronger perceptions of social alienation than lower scores. A copy of the scale is presented in Appendix J. In previous research, Cronbach's coefficient alpha was used in assess internal consistency of the scale with a reliability coefficient of .84 reported by Seidel and Vaughn, (1991). The internal reliability of the SATC in the present sample was .91.

CHAPTER IV

Results

The present study investigated the hypothesized relationship between various aspects of friendship quality and self-reports of three psychosocial indices of adjustment: (general Self-Worth, Alienation and Depression), in same-sex (SS) and opposite-sex (OS) friendships. The organization of the results chapter is as follows. First, a preliminary factor analysis was conducted to determine the factorial validity of the subscales included in the revised Friendship Quality Questionnaire (FQQ) for both same-sex and opposite-sex friendships. Internal consistencies for the resulting subscales are also discussed. Second, the results of the preliminary analyses are presented, conducted to examine whether various aspects of friendship quality varied as a function of age, sex, and the nature of the relationship (SS versus OS). Third, the intercorrelations among the various FQQ subscales as well as the relationships among the three adjustment indices are discussed. Fourth, gender differences in the friendship qualities that predict closeness are presented. Finally, the results of correlational analyses that were conducted in order to examine the relationships between multidimensional aspects of friendship quality, for both same-and opposite-sex friendships, and various indices of adjustment by age and sex, are delineated.

Factor Analysis

Although the Friendship Quality Questionnaire (FQQ) employed in the present study was derived primarily from the measure developed by Parker and Asher (1993), and the original version of this scale was administered in its entirety, including six distinct dimensions of friendship quality (i.e., Validation/Caring, Conflict Resolution, Conflict/Betrayal, Help/Guidance, Companionship/Recreation, and Intimate Disclosure),

additional items were included in the scales, derived from previous research by other authors (Camarena et al., 1990; Sharabany et al., 1981). Moreover, an additional and more general subscale, derived from previous research by Camarena et al. (1990), was also included, tapping overall feelings of perceived Closeness and Satisfaction with the relationship. Although inclusion of items into various subscales was conceptually-driven, factor analyses were nevertheless conducted in order to verify the factorial validity of the resulting subscales within the present sample. Accordingly, a principal component analysis was conducted followed by maximum likelihood factoring. A non-orthogonal (direct oblimin) rotation was conscripted, as the factor correlation matrices posed correlations that exceeded .30 suggesting a 10% overlap in variance, enough to warrant an oblique rotation. The number of factors that was decided upon was determined through a combination of eigenvalues, examination of scree plots, minimized cross loadings, communality estimates, residual matrices, and most importantly, the interpretability of the resultant factors. Of additional interest was whether the same factor structure or set of subscales would emerge in descriptions of same-sex and opposite-sex friendships.

In conducting these factor analyses, it was deemed appropriate to consider the added general subscale, tapping overall feelings of Closeness, separately from the other subscale items, which were designed to tap more specific and distinctive aspects of friendships quality within a close relationship. Accordingly, the items which conceptually comprised the Closeness subscale were evaluated separately from the remaining items. Specifically, the 7 items comprising the Closeness subscale for same-sex and opposite-sex best friendships (evaluated separately) were subjected to a principal components and a maximum likelihood factor analysis (direct oblimin rotation). Results of this factor analysis verified the factorial coherence of this subscale for both same-sex and opposite-sex friendships, with all seven items loading on a single factor in each case.

Factor loadings and internal consistency estimates for this general subscale are presented in Table 4.1 separately for SS and OS friendships.

Table 4.1

Factor Loadings and Internal Consistency Estimates for Friendship Quality Subscales

	<u>Factor loadings</u>	
	SS	OS
CLOSENESS SCALE		
(alpha = .81 for SS, alpha =.87 for OS)		
51. My best friend and I are really close.	.76	.81
54. My best friend is important to me.	.74	.86
04. My best friend understands what I am really like.	.66	.75
08. My best friend accepts me no matter what I do.	.57	.67
64. I feel comfortable being myself with my best friend.	.56	.70
60. My best friend seems to know when I am upset about something.	.51	.74
28. I am satisfied with my relationship with my best friend.	.47	.59

As can be seen in table 4.1, all seven items of this general scale loaded significantly on a single factor for both same-sex and opposite-sex friendship evaluations. Moreover, internal consistency estimates obtained for both same-sex and opposite-sex friendship evaluations of Closeness were quite high, supporting the use of these items as a single subscale.

Next, two principal component factor analyses were conducted, followed by maximum likelihood factoring, one for same-sex friendships, the other for opposite-sex friendships, using the remaining items which tapped more specific aspects of the qualities of the relationship. Results of these factor analyses revealed that a highly similar set of

factors emerged for both same-sex and opposite-sex friendships; however, there were some items that did not load on both and were therefore not included, in order to provide comparable estimates of friendship quality for both SS and OS friendships.¹ The items included in each resulting factor, as well as observed factor loadings and internal consistency estimates for both same-and opposite-sex friendships are shown in Table 4.2.

Table 4.2

Factor Loadings and Internal Consistency Estimates for Friendship Quality Subscales

	<u>Factor loadings</u>	
	SS	OS
SELF-DISCLOSURE (alpha =.88, for SS, alpha =.93 for OS)		
52. I can think of lots of secrets my best friend and I have told each other.	.63	.64
33. My best friend and I talk about things that make us sad or upset.	.61	.55
17. My best friend and I can always talk to each other about our problems.	.57	.52
49. My best friend and I often share secrets and private thoughts.	.56	.65
58. I feel free to talk to my best friend about almost everything.	.54	.58
20. When I'm mad about something that happened to me, I can always talk to my best friend about it.	.53	.53
45. I can go to my best friend for advice.	.51	.46
26. My best friend comes to me for advice.	.41	.49
SCHOOL HELP (alpha =.79 for SS, alpha =.79 for OS)		
50. My best friend and I often help each other with schoolwork.	.73	.73
21. My best friend and I help each other alot (with projects, chores or schoolwork).	.71	.48
42. My best friend often helps me with things so I can get done quicker.	.52	.67
46. My best friend and I always count on each other for ideas on how to get things done.	.44	.47

Factor Loadings and Internal Consistency Estimates for Friendship Quality Subscales(Cont'd)

	<u>Factor loadings</u>	
	SS	OS
CONFLICT (alpha = .83 for SS, alpha = .85 for OS)		
25. My best friend and I often argue.	.82	.82
05. My best friend and I get mad at each other a lot.	.81	.70
35. My best friend and I fight or argue.	.77	.90
SHARED EXPERIENCE (alpha = .82 for SS, alpha = .89 for OS)		
29. My best friend and I go to each other's house after school and on weekends	.73	.67
32. My best friend and I do lots of things together.	.69	.75
55. My best friend and I often hang out together.	.62	.74
23. My best friend and I see each other as often as we can.	.47	.58
24. My best friend and I spend time together at activities.	.42	.52
TRUST/LOYALTY (alpha = .87 for SS, alpha = .90 for OS)		
38. If I told my best friend a secret I could trust him/her not to tell anyone else.	.81	.81
27. I can always count on my best friend to keep promises.	.69	.72
62. I know I can count on my friend to tell me the truth.	.66	.58
65. My best friend is very loyal to me.	.63	.42
07. If others were talking behind my back, my best friend would stick up for me.	.46	.41
57. I speak up to defend my best friend when others say bad things about him/her.	.41	.44
61. My best friend will stick up for me even when I'm not around.	.40	.51

Factor Loadings and Internal Consistency Estimates for Friendship Quality Subscales(Cont'd)

	<u>Factor loadings</u>	
	SS	OS
VALIDATION/CARING (alpha = .77 for SS, alpha = .79 for OS)		
16. My best friend tells me I'm smart.	.54	.42
06. My best friend compliments me on my strong points (says I am good at things).	.51	.59
11. If my best friend hurts my feelings he or she apologizes.	.47	.41
09. My best friend and I make each other feel important and special.	.46	.59
37. If my best friend and I are mad at each other, we always talk about what would make us feel better.	.46	.39

The first factor, labeled Self Disclosure, was composed of eight items that concerned talking about everything with one's best friend. The second factor, School Help, included four items and assessed perceptions of how much help one received from a best friend for school-related projects. The third factor, Conflict, was composed of three items and assessed the perceived amount of conflict within the friendship. The fourth factor, labeled Shared Experience, was composed of five items which reflected common or shared activities, spending time together, and hanging out together. Factor five, Trust/Loyalty, was composed of seven items which concerned issues of loyalty, sticking up for one another, dependability, and trusting one another. Factor six, Validation/Caring, was composed of six items, and considered the degree to which a friend provided positive feedback and helped to bolster one's positive self-regard.

Cronbach's (1951) alpha was also used to assess the internal reliability for each of these six FQQ subscales (as presented in Table 4.2). Generally, the reliability estimates in the present study were quite high, and consistent with those of previous research, although the alpha coefficient obtained for the Validation/Caring subscale for both same and opposite-sex evidenced a lower, although adequate, alpha coefficient, likely due to the fewer number of items included in this subscale. Although many of the original subscales included in the Parker and Asher (1993) version of the Friendship Quality Questionnaire have been retained (Self-Disclosure, Conflict, Validation/Caring), some did not emerge in the present sample (e.g., Conflict Resolution) and other subscales, unique to the present study, were evident (Closeness, School Help, Shared Experience, Trust/ Loyalty). Despite these variations, the results of the factor analyses and internal consistency evaluations clearly support the use of the seven identified friendship quality subscales in the present study. Accordingly, on the basis of these results, seven friendship quality subscale scores were computed for each subject, for both same-sex and opposite-sex friendships, based on a sum of all relevant items in each case. Across subscales, higher scores were indicative of greater amounts of each quality.

Intercorrelations among Friendship Quality Variables

The inter-correlations among the seven friendship quality subscales, as observed for same-sex friendships are presented below in Table 4.3 and the intercorrelations observed for the seven opposite-sex subscales are presented in Table 4.4. The pattern of observed correlations among the same-sex subscales were found to be lower than those observed for the opposite-sex subscales. Within the SS subscales, the average value of the correlations was (.33), and the highest correlations was (.68) between the Trust/Loyalty and Closeness scale. With OS subscales, the average value of the OS subscales was moderate (.47) and the highest correlation was (.80) between the

Trust/Loyalty and Closeness scale. Thus for both SS and OS friendship quality assessments, there was a moderate degree of overlap among the various dimensions of friendship quality, although the magnitude of these correlations was not so high as to suggest complete redundancy. Accordingly each of the seven FQQ scales were considered separately in subsequent analyses.

Table 4.3

Intercorrelations among Same-Sex Friendship Quality Subscales

Subscale	1	2	3	4	5	6	7
1.Self Disclosure	1.00	--					
2.School Help	.41***	1.00	--				
3.Conflict	.00	.02	1.00	--			
4.Shared Experience	.43***	.47***	.13**	1.00	--		
5.Trust/Loyalty	.67***	.33***	-.13**	.31***	1.00	--	
6.Validation/ Caring	.61***	.38***	-.11*	.26***	.59***	1.00	--
7.Closeness	.66***	.35***	-.05	.39***	.68***	.58***	1.00

* p<.05, ** p<.01, *** p<.000***

Table 4.4

Intercorrelations among Opposite-Sex Friendship Quality Subscales

Subscales	1	2	3	4	5	6	7
1.Self Disclosure	1.00						
2.School Help	.56***	1.00					
3.Conflict	.10*	.09	1.00				
4.Shared Experience	.70***	.60***	.12**	1.00			
5.Trust/Loyalty	.78***	.46***	.04	.59***	1.00		
6.Validation/Caring		.69***	.51***	-.03	.54***	.70***	1.00
7.Closeness	.77***	.51***	.08	.62***	.80***	.71***	1.00

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

The correlations observed between corresponding same-sex and opposite-sex FQQ subscales are presented in Table 4.5. As can be seen in Table 4.5, each same-sex subscale was significantly correlated with the analogous opposite-sex subscale suggesting that similar constructs may be tapped in each case. However, the magnitude of these correlations is sufficiently low as to suggest that SS and OS friendship quality dimensions are relatively distinct and may be differentially contributing to one's overall adjustment.

Table 4.5

Intercorrelations among Same and Opposite-Sex Friendship Quality Subscales

	Same-Sex Subscales						
	1	2	3	4	5	6	7
Opposite-Sex Subscales:							
1. Self Disclosure	.42***						
2. School Help		.29***					
3. Conflict			.26***				
4. Shared Experience				.14**			
5. Trust/Loyalty					.31***		
6. Validation/ Caring						.26***	
7. Closeness							.23***

* p<.05, ** p<.01, *** p<.000

Intercorrelations among Adjustment Indices

The intercorrelations among the three adjustment indices assessed in the present sample are presented in Table 4.6. As can be seen in Table 4.6, the intercorrelations among the adjustment indices are moderate, suggesting some overlap among the

measures, but the correlations are not too high to suggest redundancy. Accordingly, each of the three adjustment measures were considered separately in subsequent analyses.

Table 4.6

Intercorrelations among Adjustment Measures

Scale	1	2	3
1. Depression	1.00	-.54***	.52***
2. Self-worth		1.00	-.45***
3. Alienation			1.00

*** $p < .001$

Age and Gender Differences in Friendship Quality

To assess whether perceived friendship quality (as assessed by the seven friendship quality subscales) varied as a function of the sex and age of the perceiver as well as the nature of the relationship (same-sex versus opposite-sex friendships), a series of 2 (sex) x 3 (grade) x 2 (same-sex friend, opposite-sex friend), within-subjects analyses of variance were conducted. Results of the analyses revealed significant main effects of gender, age and type of relationship (SS and OS), as well as various significant interactions across the various friendship quality subscales, as discussed below.

Variations as a function of gender. Results of the analyses of variance showed significant main effects of gender for four of the seven friendship quality subscales:

Closeness $F(1,284) = 14.13, p < .001$, Self-Disclosure $F(1,284) = 27.19, p < .001$, Trust/Loyalty $F(1,284) = 6.24, p < .01$, and Validation/Caring $F(1,284) = 7.52, p < .01$. Specifically, females rated their relationships as significantly higher in Closeness ($M = 3.98$) than did males ($M = 3.71$) and also reported significantly greater levels of Self-Disclosure ($M = 3.83$) than did males ($M = 3.32$). In addition, females reported significantly greater levels of Trust/Loyalty ($M = 4.14$) than did males ($M = 3.92$), as well as significantly greater levels of Validation/Caring ($M = 3.73$) than did males ($M = 3.51$). These significant main effects for gender, however, were qualified in some cases, by significant interactions between gender and the type of friendship being considered (SS versus OS). In particular, significant gender by friend interactions were obtained for Self-Disclosure $F(1,284) = 17.01, p < .001$, Trust/Loyalty $F(1,284) = 5.65, p < .01$ and Validation/Caring $F(1,284) = 18.89, p < .001$. A significant gender by friend interaction was also obtained for Conflict $F(1,284) = 9.90, p < .001$.

In order to determine the nature of these interactions, post hoc analyses (independent t-tests) were conducted, examining whether these sex differences were evident for SS as well as OS friendships, when examined separately. Results of the post hoc analyses, as presented in Table 4.7, indicated that females reported significantly greater Self-Disclosure than males in both SS and OS friendships, although the difference between males and females appeared to be greater in SS than OS friendships. For both Validation/Caring and Trust/Loyalty, results of the post hoc analyses indicated that the observed sex differences (favoring females) were only evident in the case of SS but not OS friendships. With regard to Conflict, results indicated that males reported significantly greater conflict in their friendships than did females, but only for SS (not OS) friendships.

Table 4.7

Interactions Between Gender and the Nature of the Friendship (SS vs. OS)

	Females		Males		
	<u>M</u>	(SD)	<u>M</u>	(SD)	t-value
Self-Disclosure					
Same-sex	4.30	(0.64)	3.55	(0.87)	8.41***
Opposite-sex	3.37	(1.20)	3.09	(1.10)	2.06*
Trust/Loyalty					
Same-sex	4.42	(0.61)	4.09	(0.87)	3.75***
Opposite-sex	3.86	(1.00)	3.76	(0.96)	0.95
Validation/Caring					
Same-sex	4.04	(0.68)	3.58	(0.90)	4.94***
Opposite-sex	3.43	(0.96)	3.45	(0.97)	-0.12
Conflict					
Same-sex	2.17	(1.00)	2.43	(1.00)	4.03*
Opposite-sex	2.34	(1.00)	2.13	(0.99)	2.36

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

A significant gender by age interaction was also observed for the dimension of Conflict $F(2, 284) = 3.20, p < .05$. In order to interpret the nature of this effect, post hoc analyses (independent t-tests) were conducted to determine whether sex differences in reported conflict were evident for subjects at each grade level. Results of these analyses indicated that in grade five, females reported similar levels of Conflict in their relationships ($M=2.33$) with males ($M=2.07$) ($t = 1.59, ns$), and again in grade eight, females ($M=2.35$) and males ($M=2.41$) did not differ significantly in the level of reported Conflict ($t = 0.60, ns$). However, by grade eleven, males reported significantly greater levels of Conflict in their relationships ($M=2.41$) than females ($M=2.00$) ($t = 2.04, p < .05$). No other significant interactions involving gender were observed.

Variations as a function of the nature of the relationship (SS versus OS). Results of the analyses of variance also indicated that reported friendship quality varied as a function of the friendship being considered, SS or OS. Specifically, significant main effects were found for friend (SS vs. OS) on five of the seven friendship quality subscales: Self-Disclosure $F(1,284) = 122.79, p < .001$, School Help $F(1,284) = 117.29, p < .001$, Shared Experience $F(1,284) = 176.11, p < .001$, Trust/Loyalty $F(1,284) = 52.78, p < .001$ and Validation/Caring $F(1,284) = 36.02, p < .001$. For all five dimensions, an examination of means suggested higher levels of each dimension for SS as compared with OS friendships. In other words, SS friendships were rated as higher in Self-Disclosure ($M=3.92$ for SS, $M=3.23$ for OS), School Help ($M=3.71$ for SS, $M=2.93$ for OS), Shared Experience ($M=3.89$ for SS, $M=2.79$ for OS), Trust/Loyalty ($M=4.25$ for SS, $M=3.81$ for OS) and Validation/Caring ($M=3.81$ for SS, $M=3.44$ for OS) than were OS friendships. In several cases, however, these main effects were qualified by significant gender by friend interactions. Specifically (as reported earlier), significant gender by friend interactions were obtained for Self-Disclosure $F(1,284) = 17.01, p < .001$,

Trust/Loyalty $F(1,284) = 5.65, p < .01$, Validation/Caring $F(1,284) = 18.89, p < .001$, and Conflict $F(1,284) = 9.90, p < .001$.

In order to determine the nature of these interactions, particularly with regard to the noted main effects for friend (SS vs. OS), post hoc analyses (dependent t-tests) were conducted in order to examine whether the differences between SS and OS friendships emerged for both males and females, when considered separately. Results of these post hoc analyses, as presented in Table 4.8 below, indicated that significantly greater Self-disclosure was reported in SS than OS relationships for both females ($t=10.10, p<.001$) and males ($t=5.17, p<.001$), although this difference appeared to be larger for females than for males. The same pattern of results emerged for Trust/Loyalty, although significantly greater Trust/Loyalty was reported in SS than OS relationships for both females ($t=-6.83, p<.001$) and males ($t=-3.59, p<.001$), this difference appeared to be larger for females than for males. For Validation/Caring, results indicated that significantly greater Validation/ Caring was reported in SS than OS relationships for females ($t=7.55, p<.001$), but not for males ($t=1.40, ns$). In contrast, for Conflict, significantly greater levels of conflict were reported for SS than OS relationships for males ($t=2.81, p<.01$), but not for females ($t=1.66, ns$).

Table 4.8

Variations in Friendship Quality as a Function of Gender and Type of Relationship

Friendship Quality	Same-Sex Friendships	Opposite-Sex Friendships
	<u>M</u> (SD)	<u>M</u> (SD)
Self-Disclosure ***		
Females (n=157)	4.30 ^a (0.64)	3.37 ^b (1.20)
Males (n=139)	3.55 ^a (0.87)	3.09 ^b (1.10)
Conflict **		
Females (n=157)	2.17 (1.00)	2.34 (1.00)
Males (n=139)	2.43 ^a (1.00)	2.13 ^b (0.99)
Trust/Loyalty **		
Females (n=157)	4.42 ^a (0.61)	3.86 ^b (1.00)
Males (n=139)	4.09 ^a (0.87)	3.76 ^b (0.96)
Validation/Caring ***		
Females (n=157)	4.04 ^a (0.68)	3.43 ^b (0.96)
Males (n=139)	3.58 (0.90)	3.45 (0.97)

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

Note. Significant differences between males and females, as determined by post-hoc analyses (dependent t-tests) are indicated by different superscripts within rows.

Friendship quality was also found to vary as a function of the interaction of both the nature of the relationships (SS vs. OS) and age (Grades 5,8,11). Specifically, significant friend by age interactions were observed for six of the seven friendships quality dimensions: Closeness $F(2,284) = 11.79$, $p < .001$, Self-Disclosure $F(2,284) = 14.51$, $p < .001$, School Help $F(2,284) = 6.40$, $p < .001$, Shared Experience $F(2,284) = 7.42$, $p < .001$, Trust/Loyalty $F(2,284) = 11.00$, $p < .001$, and Validation/Caring $F(2,284) = 11.80$, $p < .001$. Relevant means for these analyses are presented in Table 4.9.

Table 4.9

Variations in Friendship Quality : Interactions of Age and Type of Relationship

Friendship Quality	Same-Sex <u>M</u> (SD)	Opposite-Sex <u>M</u> (SD)
Closeness ***		
Fifth Graders (n=98)	3.91 ^a (0.59)	3.54 ^b (0.99)
Eighth Graders (n=109)	3.78 (0.52)	3.76 (0.92)
Eleventh Graders (n=92)	3.96 ^a (0.49)	4.25 ^b (0.68)
Self-disclosure ***		
Fifth Graders (n=98)	3.79 ^a (0.82)	2.74 ^b (1.10)
Eighth Graders (n=109)	3.90 ^a (0.88)	3.11 ^b (1.10)
Eleventh Graders (n=92)	4.18 ^a (0.79)	3.91 ^b (0.91)
School Help **		
Fifth Graders (n=98)	3.67 ^a (1.00)	2.75 ^b (1.10)
Eighth Graders (n=109)	3.79 ^a (0.86)	2.82 ^b (1.00)
Eleventh Graders (n=92)	3.68 ^a (0.92)	3.26 ^b (0.95)
Shared Experience ***		
Fifth Graders (n=98)	3.84 ^a (1.00)	2.44 ^b (1.20)
Eighth Graders (n=109)	3.88 ^a (0.83)	2.66 ^b (1.10)
Eleventh Graders (n=92)	3.96 ^a (0.92)	3.34 ^b (1.10)
Trust/Loyalty ***		
Fifth Graders (n=98)	4.28 ^a (0.74)	3.48 ^b (1.00)
Eighth Graders (n=109)	4.12 ^a (0.81)	3.71 ^b (0.99)
Eleventh Graders (n=92)	4.42 (0.67)	4.29 (0.74)
Validation/Caring ***		
Fifth Graders (n=98)	3.93 ^a (0.80)	3.23 ^b (1.00)
Eighth Graders (n=109)	3.69 ^a (0.90)	3.25 ^b (0.91)
Eleventh Graders (n=92)	3.89 (0.73)	3.87 (0.78)

*** p < .001

In order to determine the nature of these interactions, particularly in terms of qualifying the noted significant main effects observed for SS versus OS friendships, post hoc analyses (dependent t-tests) were conducted in order to examine whether variations across SS and OS friendships were evident within each age group, when considered separately. Results of these post hoc analyses revealed the following (see Table 4.9). With regard to Closeness, fifth graders reported significantly greater closeness in SS than OS relationships ($t=3.44$, $p<.001$), while eleventh graders reported significantly greater closeness in their OS than SS relationships ($t=3.97$, $p<.001$). Eighth graders did not differ significantly in terms of the closeness reported for SS versus OS relationships ($t=0.19$, ns). For Self-Disclosure, School Help, and Shared Experience, results indicated significantly greater levels of each dimension for SS than for OS friendships and this pattern was evident at all grade levels (for Self-Disclosure, $t=8.77$, $p<.001$ for fifth graders, $t=7.53$, $p<.001$ for eighth graders, and $t=3.06$, $p<.01$ for eleventh graders, for School Help, $t=6.86$, $p<.001$ for fifth graders, $t=9.31$, $p<.001$ for eighth graders, and $t=3.49$, $p<.001$ for eleventh graders; for Shared Experience, $t=9.78$, $p<.001$ for fifth graders, $t=9.35$, $p<.001$ for eighth graders, and $t=4.26$, $p<.01$ for eleventh graders). In all three cases, however, an examination of means suggests that the differences in reported quality across SS and OS relationships (favoring SS friendships) appears to diminish by grade 11, although the differences remain significant across all grade levels. For both Trust/Loyalty and Validation/Caring, results indicated that significantly higher levels of each quality were reported for SS than OS friendships for both fifth and eighth graders, although an examination of means suggests that the differences are smaller in grade eight than in grade five, and the differences between SS and OS friendships for these dimensions were no longer significant by grade eleven (for Trust/Loyalty, $t=6.94$, $p<.001$ for fifth graders, $t=3.80$, $p<.001$ for eighth graders, and $t=1.76$, ns, for eleventh graders; for Validation /Caring, $t=5.90$, $p<.001$ for fifth graders, $t=3.95$, $p<.001$ for eighth graders,

and $t=0.27$, ns, for eleventh graders). No other significant interactions involving SS vs. OS friendships were observed.

Variations as a function of age. Significant main effects of age were found for five of the seven friendship quality subscales: Closeness $F(2,284) = 12.43$, $p < .001$, Self-disclosure $F(2, 284) = 23.38$, $p < .001$, Shared Experience $F(2,284) = 11.10$, $p < .001$, Trust/Loyalty $F(2,284) = 14.53$, $p < .001$ and Validation/Caring $F(2,284) = 8.78$, $p < .001$. For all five dimensions, an examination of means using post-hoc analyses (Tukey, Honestly Significant Difference, HSD) suggested significantly higher levels of each dimension in grade eleven than grade eight and higher levels of each dimension in grade eleven than grade five, but no significant difference between grade eight and grade five. In other words, grade eleven students reported significantly higher levels of Closeness ($M=4.10$ for gr.11, $M=3.77$ for gr.8, $M=3.72$ for gr.5), Self-Disclosure ($M=4.05$ for gr.11, $M=3.51$ for gr.8, $M=3.26$ for gr.5), Shared Experience ($M=3.65$ for gr.11, $M=3.27$ for gr.8, $M=3.14$ for gr.5), Trust/Loyalty ($M=4.35$ for gr.11, $M=3.91$ for gr.8, $M=3.88$ for gr.5) and Validation/Caring ($M=3.88$ for gr.11, $M=3.47$ for gr.8, $M=3.58$ for gr.5) than did grade eight and grade five students.

In all cases, however, these overall grade main effects were qualified by significant interactions between age and the nature of the relationship (SS versus OS). Specifically, significant interactions between age and friend emerged for six of the seven friendship quality variables examined: Closeness $F(2, 284) = 11.79$, $p < .001$, Self-Disclosure $F(2, 284) = 14.51$, $p < .001$, School Help $F(2, 284) = 6.40$, $p < .001$, Shared Experience $F(2, 284) = 7.42$, $p < .001$, Trust/Loyalty $F(2, 284) = 11.00$, $p < .001$, and Validation/Caring $F(2, 284) = 11.80$, $p < .001$. In order to interpret the nature of these interactions, post hoc analyses (Tukey-HSD) were conducted, examining age differences within SS friendships and age differences within OS friendships separately. Relevant

means and standard deviations are presented in Table 4.10. As can be seen in Table 4.10, reported Closeness and Trust/Loyalty in same-sex best friendships were both significantly higher in grade eleven than grade eight with the difference between grade eight and grade five being non-significant. For opposite-sex friendships, a slightly different pattern emerged with grade eleven being significantly greater than both grade eight and grade five students, with the latter two grade levels not differing significantly from one another. With regard to reported School Help and Shared Experience in same-sex friendships, there was no significant age increase, but for opposite-sex friendships grade eleven students reported significantly greater levels of School Help and Shared Experience than did grade eight and grade five students, although grade eight students did not differ significantly from grade five students on these dimensions. For Self-Disclosure, there was a significant increase for same-sex best friendships between grade five and grade eleven and between grade eight and grade eleven, but no significant increase emerged from grade five to grade eight. For opposite-sex friends, Self-Disclosure significantly increased with age, between grade five and grade eight and also between grade eight and grade eleven. For reported Validation/Caring in same-sex friendships, there was a significant decrease from grade five to grade eight, and no significant difference between grade eight and eleven. For opposite-sex friends, a different pattern emerged for Validation/Caring, with grade eleven students reporting significantly higher levels of Validation/Caring than grade eight and grade five students, with the latter two grade levels not differing significantly from one another.

Table 4.10

Variations in Friendship Quality as a Function of Grade

Grade:	5	8	11
	<u>M</u> (SD)	<u>M</u> (SD)	<u>M</u> (SD)
Closeness***			
Same-Sex Friendships	3.91 (0.59)	3.78a (0.52)	3.96b (0.49)
Opposite-Sex Friendships	3.54a (0.99)	3.76a (0.92)	4.25b (0.68)
Self-Disclosure***			
Same-Sex Friendships	3.80a (0.82)	3.86a (0.89)	4.17b (0.79)
Opposite-Sex Friendships	2.74a (1.15)	3.11b (1.13)	3.91c (0.91)
School Help			
Same-Sex Friendships	3.67 (1.08)	3.75 (0.86)	3.66 (0.92)
Opposite-Sex Friendships	2.75a (1.11)	2.80a (1.06)	3.25b (0.95)
Shared Experience***			
Same-Sex Friendships	3.83 (1.03)	3.88 (0.83)	3.97 (0.92)
Opposite-Sex Friendships	2.44a (1.12)	2.66a (1.16)	3.33b (1.11)
Trust/Loyalty***			
Same-Sex Friendships	4.28 (0.74)	4.12a (0.81)	4.42b (0.67)
Opposite-Sex Friendships	3.48a (1.04)	3.71a (0.99)	4.29b (0.74)
Validation/Caring***			
Same-Sex Friendships	3.94a (0.80)	3.66b (0.90)	3.88 (0.73)
Opposite-Sex Friendships	3.23a (1.05)	3.25a (0.91)	3.87b (0.77)

*** $p < .001$ /Note. Significant differences across grades, as determined by post-hocs (Tukey, HSD) are indicated by different superscripts across rows.

A significant interaction between age by gender was observed for only one of the seven friendship quality dimensions considered: Conflict $F(2, 284) = 3.20, p < .05$. In order to interpret the nature of this effect, a post hoc analysis (Tukey-HSD) was conducted to determine whether age differences in reported Conflict were evident for each sex (male, female). Results of these analyses indicated that no two groups were significantly different.

Gender Variations in Closeness

Camarena et al. (1990) hypothesized that Shared Experience and Self-Disclosure can be viewed as paths to achieving intimacy or Closeness for boys and girls. In addressing this postulate, they found that Self-Disclosure was a significant predictor of Closeness for both females and males, while Shared Experience was a predictor only for males. In an effort to replicate the results of Camarena et al., subsequent analyses were conducted to assess whether the prediction of Closeness would vary for boys and girls. Specifically, regression analyses were conducted to determine the degree to which both Shared Experience and Self-Disclosure predicted reported Closeness, with the expectation that Self-Disclosure would emerge as a predictor for females while Shared Experience would emerge as a predictor for males. These analyses were conducted first with regard to SS friendships, providing a direct replication of Camarena et al., and second with regard to OS friendships, providing an extension of Camarena et al. Results obtained for SS relationships are presented first.

To assess the relative contribution of Self-Disclosure and Shared Experience in predicting Closeness, standard regression analyses were performed for males and females. In these analyses, together, both Self-Disclosure and Shared Experience were entered into the equation, for males and females separately. Together, Self-Disclosure and

Shared Experience were strongly associated to Closeness for females (Multiple $R = .55$, $R^2 = .30$, adjusted $R^2 = .29$, $F(2,157) = 34.22$, $p < .001$) with the regression equation accounting for 30% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.34) was significantly different from zero, $F(1,158) = 44.75$, $p < .001$, suggesting that Self-Disclosure was a significant predictor of Closeness. However, the regression coefficient for the path between Shared Experience and Closeness was non-significant (.03), $F(2,157) = .89$, ns, when controlling for the effects of Self-Disclosure. Thus, when examined independently, only Self-Disclosure contributed significantly to the prediction of Closeness for females. For males, Self-Disclosure and Shared Experience taken together, were strongly associated to Closeness (Multiple $R = .72$, $R^2 = .52$, adjusted $R^2 = .52$, $F(2,136) = 76.20$, $p < .001$), however, when examined separately, the regression coefficient (.43) revealed that Self-Disclosure was a significant path to Closeness, $F(1,137) = 73.96$, $p < .001$, and the pathway between Shared Experience and Closeness was also significant for boys (.12), $F(2,136) = 6.10$, $p < .01$, when controlling for Self-Disclosure. Apparently, Self-Disclosure is a significant path to Closeness for both boys and girls, but the relationship between Shared Experience and Closeness is however, significant only for boys, replicating Camarena et al. (1990).

Extending Camarena et al. (1990), of additional interest was an examination of whether these paths for boys and girls changed developmentally. For fifth graders, together, Self-Disclosure and Shared Experience were significantly associated to Closeness for females (Multiple $R = .39$, $R^2 = .15$, adjusted $R^2 = .11$, $F(2,42) = 3.81$, $p < .05$), with the regression equation accounting for 15% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.28) was significantly different from zero, $F(1,43) = 3.96$, $p < .05$. However, the regression coefficient for the path between Shared Experience and

Closeness was non-significant ($.00$), $F(2,42) = .00$, ns, when controlling for the effects of Self-Disclosure. Thus, when examined independently, only Self-Disclosure contributed significantly to the prediction of Closeness for females. For males, together, Self-Disclosure and Shared Experience were significantly associated to Closeness (Multiple $R = .60$, $R^2 = .36$, adjusted $R^2 = .34$, $F(2,50) = 14.44$, $p < .001$), with the regression equation accounting for 36% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient ($.47$) was significantly different from zero, $F(1,51) = 16.81$, $p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness was non-significant ($.01$), $F(2,50) = .02$, ns, when controlling for the effects of Self-Disclosure. In sum, for fifth graders, Self-Disclosure is a path to Closeness for both girls and boys, but the relation between Shared Experience and Closeness was not significant for either girls or boys.

In eighth grade, together, Self-Disclosure and Shared Experience were significantly associated to Closeness for females (Multiple $R = .68$, $R^2 = .47$, adjusted $R^2 = .41$, $F(2,61) = 27.31$, $p < .001$), with the regression equation accounting for 47% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient ($.37$) was significantly different from zero, $F(1,62) = 34.92$, $p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness was significant ($.09$), $F(2,61) = 4.24$, $p < .05$, when controlling for the effects of Self-Disclosure. Thus, when examined independently, Self-Disclosure contributed significantly to the prediction of Closeness, as well as Shared Experience to Closeness for females. For males, together, Self-Disclosure and Shared Experience were significantly associated to Closeness (Multiple $R = .84$, $R^2 = .72$, adjusted $R^2 = .70$, $F(2,42) = 54.67$, $p < .001$), with the regression equation accounting for 72% of the variance. When examining the effects of Self-Disclosure to Closeness,

controlling for Shared Experience, the regression coefficient (.45) was significantly different from zero, $F(1,43) = 55.05, p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness (.18) was also significant, $F(2,42) = 6.45, p < .01$, when controlling for the effects of Self-Disclosure. Thus, for eighth graders, Self-Disclosure is a significant path to Closeness again, for both boys and girls, and the relation between Shared Experience to Closeness is also significant for both boys and girls.

For eleventh grade females, together Self-Disclosure and Shared Experience were significant predictors to Closeness (Multiple $R = .66, R^2 = .44$, adjusted $R^2 = .43, F(2,48) = 19.03, p < .001$) accounting for 44% of the variance in Closeness. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.46) was significant $F(1,49) = 28.30, p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness was not significant (.00), $F(2,48) = .03, ns$, when controlling for the effects of Self-Disclosure. Thus, when examined independently, Self-Disclosure only contributed significantly to the prediction of Closeness, for females. For males, together, Self-Disclosure and Shared Experience were significantly associated to Closeness (Multiple $R = .80, R^2 = .64$, adjusted $R^2 = .63, F(2,38) = 35.09, p < .001$), with the regression equation accounting for 64% of the variance. When examining the effects of Self-Disclosure to closeness, controlling for Shared Experience, the regression coefficient (.27) was significantly different from zero, $F(1,39) = 11.76, p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness (.42) was also significant, $F(2,38) = 18.40, p < .001$, when controlling for the effects of Self-Disclosure. Thus, for eleventh graders, Self-Disclosure is a significant path to Closeness again, for both boys and girls, however, the relation between Shared Experience to Closeness is significant only for boys.

With regard to opposite-sex friendships, again, standard regression analyses were performed for males and females. Together, Self-Disclosure and Shared Experience were strongly associated to Closeness for females (Multiple $R = .78$, $R^2 = .61$, adjusted $R^2 = .61$, $F(2,154) = 125.29$, $p < .001$) with the regression equation accounting for 61% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.53) was significantly different from zero, $F(1,155) = 120.34$, $p < .001$, suggesting that Self-Disclosure was a significant predictor of Closeness. However, the regression coefficient for the path between Shared Experience and Closeness was non-significant (.08), $F(2,154) = 3.10$, ns, when controlling for the effects of Self-Disclosure. Thus, when examined independently, only Self-Disclosure contributed significantly to the prediction of Closeness for females. For males, Self-Disclosure and Shared Experience taken together, were strongly associated to Closeness (Multiple $R = .77$, $R^2 = .60$, adjusted $R^2 = .60$, $F(2,131) = 101.02$, $p < .001$), however, when examined separately, the regression coefficient (.48) revealed that Self-Disclosure was a significant path to Closeness, $F(1,132) = 43.96$, $p < .001$, and the pathway between Shared Experience and Closeness was also significant for boys (.16), $F(2,131) = 6.00$, $p < .01$, when controlling for Self-Disclosure. Apparently, Self-Disclosure is a significant path to Closeness for both boys and girls, but the relationship between Shared Experience and Closeness is however, significant only for boys.

Of additional interest was an examination of whether these paths for boys and girls changed developmentally. For fifth graders, together, Self-Disclosure and Shared Experience were significantly associated to Closeness for females (Multiple $R = .68$, $R^2 = .47$, adjusted $R^2 = .44$, $F(2,40) = 17.93$, $p < .001$), with the regression equation accounting for 47% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.49) was significantly different from zero, $F(1,41) = 20.16$, $p < .001$. However, the regression coefficient for the

path between Shared Experience and Closeness was non-significant (.00), $F(2,40) = .00$, ns, when controlling for the effects of Self-Disclosure. Thus, when examined independently, only Self-Disclosure contributed significantly to the prediction of Closeness for females. For males, together, Self-Disclosure and Shared Experience were significantly associated to Closeness (Multiple $R = .77$, $R^2 = .59$, adjusted $R^2 = .57$, $F(2,49) = 36.03$, $p < .001$), with the regression equation accounting for 59% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.43) was significantly different from zero, $F(1,50) = 9.99$, $p < .01$. The regression coefficient for the path between Shared Experience and Closeness was significant (.33), $F(2,49) = 5.81$, $p < .01$, when controlling for the effects of Self-Disclosure. In sum, for fifth graders, Self-Disclosure is a path to Closeness for both girls and boys, but the relation between Shared Experience and Closeness was only significant for boys.

In eighth grade, together, Self-Disclosure and Shared Experience were significantly associated to Closeness for females (Multiple $R = .83$, $R^2 = .69$, adjusted $R^2 = .68$, $F(2,59) = 67.31$, $p < .001$), with the regression equation accounting for 69% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.64) was significantly different from zero, $F(1,60) = 50.13$, $p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness was non-significant (.10), $F(2,59) = 1.30$, ns, when controlling for the effects of Self-Disclosure. Thus, when examined independently, only Self-Disclosure contributed significantly to the prediction of Closeness, for females. For males, together, Self-Disclosure and Shared Experience were significantly associated to Closeness (Multiple $R = .77$, $R^2 = .59$, adjusted $R^2 = .57$, $F(2,39) = 28.69$, $p < .001$), with the regression equation accounting for 59% of the variance. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression

coefficient (.59) was significantly different from zero, $F(1,40) = 18.49, p < .001$.

However, the regression coefficient for the path between Shared Experience and Closeness (.03) was non-significant, $F(2,39) = 0.07, ns$, when controlling for the effects of Self-Disclosure. Thus, for eighth graders, Self-Disclosure is a significant path to Closeness again, for both boys and girls, and the relation between Shared Experience to Closeness is non-significant for both boys and girls.

For eleventh grade females, together Self-Disclosure and Shared Experience were significant predictors to Closeness (Multiple $R = .82, R^2 = .67$, adjusted $R^2 = .66, F(2,49) = 51.32, p < .001$) accounting for 67% of the variance in Closeness. When examining the effects of Self-Disclosure to Closeness, controlling for Shared Experience, the regression coefficient (.62) was significant $F(1,50) = 73.96, p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness was not significant (.08), $F(2,49) = 2.19, ns$, when controlling for the effects of Self-Disclosure. Thus, when examined independently, Self-Disclosure only contributed significantly to the prediction of Closeness, for females. For males, together, Self-Disclosure and Shared Experience were significantly associated to Closeness (Multiple $R = .69, R^2 = .48$, adjusted $R^2 = .45, F(2,37) = 17.53, p < .001$), with the regression equation accounting for 48% of the variance. When examining the effects of Self-Disclosure to closeness, controlling for Shared Experience, the regression coefficient (.37) was significantly different from zero, $F(1,38) = 14.44, p < .001$. However, the regression coefficient for the path between Shared Experience and Closeness (.10) was non-significant, $F(2,37) = 1.44, ns$, when controlling for the effects of Self-Disclosure. Thus, for eleventh graders, Self-Disclosure is a significant path to Closeness again, for both boys and girls, however, the relation between Shared Experience to Closeness is non-significant for boys and girls.

Effects of Friendship Quality on Adjustment: Correlational Findings

To assess whether different aspects of friendship quality contributed to adjustment, correlations were computed between each of the seven aspects of friendship quality (Closeness, Self-Disclosure, School Help, Conflict, Shared Experience, Trust/Loyalty, and Validation/Caring) and each of the three indices of adjustment (General Self-Worth, Depression and Alienation) for same-sex and opposite sex friendships. Results of these analyses for the entire sample are presented in Table 4.11.

Table 4.11

Correlation Findings between Friendship Quality and Adjustment: Entire Sample (N=291)

Dimensions of Friendships:	Adjustment Indices		
	General Self-worth	Depression	Alienation
1. Self Disclosure			
SS	.02	.11*	-.27***
OS	.03	.12**	-.09*
2. School Help			
SS	.00	.02	-.14**
OS	.06	-.02	-.05
3. Conflict			
SS	-.11*	.10*	.16**
OS	-.10*	.15**	.10*
4. Shared Experience			
SS	.09*	-.09*	-.24***
OS	.02	.04	-.06
5. Trust/Loyalty			
SS	.13**	.00	-.25***
OS	.12**	.02	-.13**

6. Validation/Caring			
SS	.07	.03	- .26***
OS	.17**	-.06	-.15**
7. Closeness			
SS	.08	.04	-.23***
OS	.12**	.04	-.15**

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

Same-sex friendship quality and adjustment. As can be seen in Table 4.11, reported Trust/Loyalty, and Shared Experience within same-sex friendships were significantly and positively correlated with General Self-Worth, while the presence of Conflict was negatively correlated with General Self-Worth. Thus, individuals who perceived themselves to experience more Shared Experiences, more Trust/Loyalty and less Conflict in their same-sex best friendships were more likely to feel positive about themselves overall.

With regard to adjustment as reflected in reported Depression, a somewhat different pattern of results emerged. Self-disclosure and Conflict were significantly and positively correlated with Depression, and Shared Experience was negatively correlated with Depression. Hence, individuals who perceived themselves to experience more Self-Disclosure and Conflict in their same-sex best friendships reported more Depression, and those who reported more Shared Experience in their same-sex best friendships reported less Depression.

With regard to Social Alienation, all seven aspects of friendship quality were significantly negatively correlated with reported Social Alienation. Thus, those individuals who reported lower levels of conflict but higher levels of Shared Experience, School Help, Self-Disclosure, Trust/Loyalty, Validation/Caring, and Closeness in their friendships reported feeling less Alienation toward their classmates.

Opposite-sex friendship quality and adjustment. As can be seen in Table 4.11 reported Trust/Loyalty, Validation/Caring, and Closeness with an opposite-sex best friend were significantly and positively correlated with General Self-Worth, and Conflict with an opposite-sex best friend was negatively correlated with Self-Worth. Thus, individuals who perceived more Trust/Loyalty, Validation/Caring, Closeness and less Conflict with an opposite-sex best friend were more likely to feel good about themselves. With regard to Depression, Self-Disclosure and Conflict in opposite-sex best friends were correlated significantly and positively with Depression. Thus, those individuals who report more Self-Disclosure and Conflict with an opposite-sex best friend were more likely to feel Depressed. Finally, reported Social Alienation was significantly correlated with all aspects of opposite-sex friendship quality except School Help and Shared Experience. Thus, those individuals reporting more Self-Disclosure, Closeness, Trust/loyalty, Validation/ Caring, and less Conflict in their opposite-sex friendships reported less Social Alienation among their classmates.

Taken together, the results of these analyses indicate that various aspects of friendship quality for both SS and OS were significantly but differentially correlated with the three indices of adjustment. Although the nature of these relations varied considerably across adjustment indices, the magnitude of these correlations was modest suggesting that friendship quality indices did not account for a large proportion of the variance in reported adjustment.

Correlations with Self-Worth as a Function of Sex and Age

Next, correlational analyses were conducted to determine if the relationships between different aspects of friendship quality would be more significant in contributing to different forms of adjustment depending on the age and sex of the adolescent. The

correlations are presented in Table 4.12. As shown in Table 4.12 (a), correlational results for general Self-Worth, suggested that the availability of a satisfying close relationship (Closeness) with either a same-sex or opposite-sex peer was unrelated to self-worth among females across grades. For grade five males, as well, perceived closeness in SS or OS friendships was unrelated to reported Self-Worth. However, among grade eight males, a more close and satisfying relationship with a same-sex friend was significantly and positively related to overall Self-Worth, while in grade eleven, a more close and satisfying relationship with an opposite-sex best friend was related to overall Self-Worth.

The experience of friendship quality within friendships, regardless of whether friendship quality was operationalized in terms of Self-Disclosure or Shared Experience was generally not significantly related to reported Self-Worth across age and gender groups, with a few exceptions. For grade five females, greater Self-Disclosure and greater Shared Experience with SS (but not OS) relationships was significantly related to reported Self-Worth, and for grade eleven females, greater Self-Disclosure with OS friendships was significantly related to reported Self-Worth. In addition only for grade five females, lower levels of Conflict within an opposite-sex friendship was significantly related to Self-Worth. Otherwise Conflict within friendships was not related to reported Self-Worth.

Reported Trust/Loyalty was also generally unrelated to reported Self-Worth, although greater Trust/Loyalty within SS friendships was related to higher Self-Worth among grade eight males, while higher Trust/Loyalty within OS friendships was related to higher Self-Worth among grade eleven females. Similarly, reported Validation/Caring was generally found to be not significantly related to Self-Worth across gender and age groups, although greater Validation/Caring in OS friendships was significantly related to higher Self-Worth among grade eight females and greater Validation/Caring in SS friendships was significantly related to reported Self-Worth among grade eight males.

Finally, reported school help from friends, SS or OS was not significantly related to Self-Worth. Overall, however, the results of these correlational analyses do not suggest consistent relations between SS or OS friendship quality and Self-Worth across gender and age groups. Moreover, the few significant correlations which did emerge were generally of moderate to low magnitude.

Table 4.12 (a)

Correlations between Friendship Quality and Self-Esteem as a Function of Sex and Age

Grade Level:	Females			Males		
	5 (n = 45)	8 (n = 64)	11 (n = 52)	5 (n = 53)	8 (n = 45)	11 (n = 41)
Friendship Quality:						
Closeness						
SS	+.10	-.06	+.15	+.19	+.36**	-.10
OS	-.02	+.07	+.16	+.15	+.11	+.33*
Self-Disclosure						
SS	+.43***	+.03	-.03	+.03	-.06	-.22
OS	-.09	-.04	+.25*	-.06	+.08	-.04
Shared Experience						
SS	+.41**	-.03	-.04	+.09	+.17	-.23
OS	-.14	+.00	+.10	-.08	+.00	-.02
Conflict						
SS	-.16	-.17	-.03	-.14	-.23	-.12
OS	-.47***	-.02	-.01	+.00	-.07	+.06
Trust/Loyalty						
SS	+.22	+.15	+.21	+.08	+.33**	-.14
OS	-.07	+.16	+.32*	+.07	-.03	+.01
Validation/Caring						
SS	+.12	+.02	+.02	+.21	+.27*	+.00
OS	-.03	+.25**	+.21	+.18	-.02	+.26*
School Help						
SS	+.12	-.05	-.09	+.00	+.22	-.13
OS	-.04	-.04	+.25	-.01	+.10	-.07

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

Correlations with Depression as a Function of Sex and Age

As can be seen in Table 4.12 (b), the correlations between friendship quality and adjustment as reflected in Depression, suggested that the availability of a satisfying close relationship (Closeness and Satisfaction) with either a same-sex or opposite-sex peer was unrelated to Depression for both males and females at all grades with the exception of grade eleven males. Among grade eleven males, a more close and satisfying relationship with an opposite-sex friend was significantly related to feeling less depressed, but a more close and satisfying relationship with a same-sex best friend was significantly related to feeling more depressed.

The experience of friendship quality within friendships, regardless of whether friendship quality was operationalized in terms of Self-Disclosure or Shared Experience was significantly related to reported Depression across two age and gender groups. For grade five females, greater Self-Disclosure, and greater Shared Experience with SS (but not OS) relationships was significantly related to lower levels of Depression. In contrast, for grade eleven males, greater Self-Disclosure, Shared Experience, Closeness, Trust/Loyalty and Conflict with SS (but not OS) relationships was significantly related to higher levels of Depression. Self-Disclosure and Shared Experience within OS friendships was unrelated to depression with one exception. For grade five males, greater Shared Experience with an OS best friend was significantly related to higher levels of Depression. For Conflict, results indicate that greater levels of reported conflict in SS friendships was associated with greater Depression only for grade eight females and grade eleven males. Greater conflict in OS friendships was associated with less Depression but only among grade five females.

Reported Validation/Caring was generally found to be not significantly related to Depression, although greater Validation/Caring in OS friendships was significantly related to lower Depression among grade eight females and among grade eleven males.

Finally, reported School Help from friends, SS or OS was not significantly related to Depression, with one exception. For grade eleven females, more School Help from an OS best friend was related to lower levels of Depression. Overall, however, the results of these correlation analyses do not suggest consistent patterns of relations between SS or OS friendship quality and Depression across gender and age groups.

Table 4.12 (b)

Correlations between Friendship Quality and Depression as a Function of Sex and Age

Grade Level:	Females			Males		
	5 (n=45)	8 (n=64)	11 (n=52)	5 (n=53)	8 (n=45)	11 (n=41)
Friendship Quality:						
Closeness						
SS	+.05	+.11	-.15	-.08	-.09	+.28*
OS	+.08	+.01	-.09	-.01	-.05	-.30*
Self-Disclosure						
SS	-.30*	+.15	-.06	-.09	-.06	+.34*
OS	+.04	+.00	-.15	+.07	+.05	+.14
Shared Experience						
SS	-.41**	-.03	-.06	-.07	-.10	+.26*
OS	+.03	-.09	-.19	+.26*	+.01	-.02
Conflict						
SS	+.01	+.31*	+.04	-.03	+.20	+.27*
OS	-.27*	+.10	+.21	+.12	+.03	+.17
Trust/Loyalty						
SS	-.15	+.06	-.10	-.15	-.15	+.32**
OS	-.01	-.08	-.19	+.07	+.00	-.06
Validation/Caring						
SS	-.01	+.07	-.05	+.00	-.12	+.11
OS	+.00	-.29**	-.17	-.02	+.03	-.26*
School Help						
SS	-.21	+.14	+.05	-.07	-.07	+.30*
OS	+.11	-.11	-.24*	+.07	-.09	+.00

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

Correlations with Alienation as a Function of Sex and Age

As can be seen in Table 4.12 (c) for grade five for females, higher levels of Self-Disclosure, School Help, Shared Experience, Trust/Loyalty, Validation/Caring and Closeness with a same-sex best friend were significantly related to lower levels of perceived Alienation. Conflict with an opposite-sex best friend was related to higher levels of perceived Alienation. For grade five males, greater Self-Disclosure, School Help, Shared Experience, Trust/Loyalty, and Closeness with a same-sex best friend were negatively correlated with Alienation.

For females in grade eight, only friendship quality aspects pertaining to the opposite-sex (Self-Disclosure, Shared Experience, Trust/Loyalty, Validation/Caring and Closeness) were related to lower levels of perceived Alienation. In particular, Closeness, Self-Disclosure, Shared Experience, Validation/Caring, and Trust/Loyalty in OS best friends was associated with Alienation. For grade eight males, friendship quality aspects pertaining to same-sex best friends (Self-Disclosure, School Help, Shared Experience, Trust/Loyalty, Validation/Caring and Closeness) and opposite-sex best friends (Self-Disclosure, School Help, Validation/Caring, Trust/Loyalty, and Closeness) were related to lower levels of perceived Alienation. That is, eighth grade males who felt Alienated were those who reported less Closeness, Self-Disclosure, Trust/Loyalty, Validation/Caring, and School Help in both their SS and OS friendships.

In grade eleven, for females, greater Validation/Caring and Closeness within a same-sex friendship was significantly related to lower levels of perceived Alienation as were greater Shared Experience, Self-Disclosure, and Closeness within an opposite-sex best friendship. For grade eleven males, Validation/Caring and Closeness with an opposite-sex best friend was related to lower levels of perceived Alienation.

Table 4.12 (c)

Correlations between Friendship Quality and Alienation as a Function of Sex and Age

Grade Level:	Females			Males		
	5 (n=45)	8 (n=64)	11 (n=52)	5 (n=53)	8 (n=45)	11 (n=41)
Friendship Quality:						
Closeness						
SS	-.25**	-.02	-.27*	-.24*	-.47***	+.02
OS	+.05	-.23*	-.28*	-.07	-.44***	-.34**
Self-Disclosure						
SS	-.51**	-.13	-.19	-.33**	-.45***	-.14
OS	-.04	-.24*	-.24*	+.03	-.37**	-.08
Shared Experience						
SS	-.58***	-.08	-.18	-.36**	-.32**	+.03
OS	+.06	-.23*	-.25*	+.00	-.21	+.06
Conflict						
SS	+.08	-.17	+.12	+.13	+.22	+.13
OS	-.24*	+.05	+.21	+.00	+.12	+.00
Trust/Loyalty						
SS	-.31**	-.15	-.13	-.32**	-.43***	+.00
OS	-.13	-.32**	-.18	-.03	-.33**	-.09
Validation/Caring						
SS	-.34**	-.02	-.25*	-.12	-.43***	-.29*
OS	+.05	-.24*	-.19	-.13	-.32**	-.39*
School Help						
SS	-.41**	+.12	+.04	-.27*	-.26*	-.10
OS	+.01	-.05	-.18	+.12	-.29**	-.15

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

CHAPTER IV

Discussion and Conclusion

The purpose of the present study was threefold. First, the study was designed to determine whether various aspects of friendship quality could be used to characterize both SS and OS friendships across the adolescent period and whether dimensions of friendship quality varied as a function of age, gender or nature of the relationship (SS versus OS). Second, the current study was designed to examine the paths to achieving Closeness for girls and boys, depending on how intimacy was operationally defined. Based on Camarena et al. (1990), it was expected that Self-Disclosure would be a predictor of Closeness for females, and Shared Experience would be a predictor to Closeness for males. Third, the current study was designed to extend previous research on the relations between friendship quality and adjustment by examining how various and distinct aspects of friendship quality were related to separate indices of adjustment and whether these relations varied as a function of age and gender.

Given previous research (Camarena et al., 1990) suggesting that friendship quality may take various forms for boys and girls, Parker and Asher's (1993) FQQ was expanded and revised to include distinct forms of friendship quality, including a general scale of Closeness and Satisfaction. Results of a preliminary factor analysis revealed that both the general subscale of Closeness and the more specific subscales assessing distinct aspects of friendship quality emerged for both SS and OS friendships. Specifically, six aspects of friendship quality (Self-Disclosure, Shared Experience, Conflict, Validation/Caring, Trust /Loyalty, and School Help) emerged for both SS and OS friendships. Moreover, each of these seven subscales were found to evidence high internal consistency in both SS and OS friendships. Given evidence for the psychometric quality of the seven subscales for

both SS and OS friendships, subsequent analyses addressed the question of whether the reported level of these dimensions varied as a function of sex, age and/or nature of the relationship (SS versus OS).

Age and Gender Differences in Friendship Quality

As expected, the results of a series of analyses of variance indicated that certain aspects of friendship quality did vary as a function of gender. Consistent with previous findings (Douvan & Adelson, 1966), results of the present study demonstrated that females reported significantly higher levels of many aspects of friendship quality than did males. For example, as hypothesized, females generally rated their relationships as higher in Closeness, and also reported greater degrees of Self-Disclosure, Trust/Loyalty, and Validation/Caring in their relationships than did males. These results are consistent with a wide body of research which suggests that girls have more intimate friendships than boys (Buhrmester & Furman, 1987; Lempers et al., 1993; Sharabany et al., 1981). However, subsequent findings further suggest that the sex differences observed for specific aspects of friendships quality were evident only with regard to SS, but not OS friendships (Trust /Loyalty and Validation/Caring), or were greater in SS than OS friendships (Self-Disclosure). In addition, males were found to report greater Conflict in their SS friendships than did females.

These findings underscore the need to distinguish SS and OS relationships in future research examining sex differences in friendship quality. These findings, suggesting that the previously noted sex differences in friendship quality may be evident primarily in SS but not OS friendships, also support the present efforts to consider both SS and OS friendships separately. Indeed, the present study constitutes one of the only studies to date to systematically evaluate whether the quality of adolescent friendships vary as a function of both the sex of the perceiver and the nature of the relationship (SS

versus OS). As such, the present examination of variations in reported friendship quality across SS and OS relationships provides an important contribution to the literature extant. Generally, results indicated that most (five out of seven) aspects of friendship quality were reported to be significantly higher in SS than in OS relationships. Specifically, the present results indicated that SS friendships were generally rated as significantly higher in Self-Disclosure, Shared Experience, Trust/Loyalty, Validation/Caring and School Help than were OS friendships. However, these overall differences were qualified in some cases by sex differences, suggesting that variations in reported friendship quality across SS and OS relationships were greater for females than males, but evident for both sexes (i.e., in the case of Self-Disclosure and Trust/Loyalty), or were only evident for females (i.e., Validation/Caring) or only evident for males (i.e., Conflict).

Evaluations of the quality of SS versus OS friendships also varied with age across the adolescent period. These age differences reflected an interesting shift in the qualities emphasized in SS versus OS friendships as students moved from preadolescence into adolescence. In particular, overall evaluations of Closeness with a friendship were significantly higher in SS friendships among fifth graders. However, by grade eight, students rated SS and OS friendships as similar in overall Closeness, and by grade 11, students rated OS rather than SS friendships as significantly closer and more satisfying. Given the classic research by Dunphy (1972), describing how the adolescent period marks a gradual and stage-like shift from same-sex to heterosexual relationships, these findings are particularly illuminating. The present findings suggest that as pre-adolescents move into adolescence, and begin to develop OS relationships, their experience with and perceptions of the closeness of SS relative to OS relationships may shift considerably. While SS friendships are viewed as closer in preadolescence, OS friendships are viewed as closer by adolescence (grade eleven).

Other findings from the present study further suggest that more specific aspects of friendship show a similar pattern of change with age, although not as striking as that shown for overall evaluations of Closeness. Specifically, in the present study, evaluations of Self-Disclosure, School Help and Shared Experience were all rated as significantly higher in SS than OS friendships at all grade levels, although the differences between SS and OS friendships on these dimensions diminished with increasing age. In the case of evaluations of Trust/Loyalty and Validation/Caring, however, this shift was even more striking. In particular, although both fifth and eighth graders rated their SS friendships as significantly higher on each of these dimensions than their OS friendships, the differences between SS and OS friendships decreased with age, and were no longer significant by grade eleven. Thus, as students move from the same-sex cliques which predominate during preadolescence to the emergence of heterosexual relationships during adolescence (Dunphy, 1972), their perceptions of the qualities of their SS and OS relationships also appear to shift. Specifically, perceived differences in the quality of SS and OS friendships appears to decrease with age, and opposite-sex friendships appears to become increasingly important with age. In line with these findings, future research may benefit from examining the profile of those adolescents who do not engage in intimate self-disclosure even in opposite-sex friendships, particularly males. Indeed, Auckett (1988) suggests that although males and females generally find comfort and emotional support in female friends, males do not engage in intimate friendships with other males, although they are capable of deep emotional intimacy in their relationships. For males, then the expression of intimacy (i.e., self-disclosure) may be developed primarily through the experience of OS friendships. Of interest, is whether males who do not engage in intimate self-disclosure in either SS or OS relationships are at greater risk for subsequent maladjustment. Future research would also be needed to determine whether the developmental shifts observed in the present cross-sectional study are also evident when

examined longitudinally. In sum, results of the present study demonstrate that the qualities of a relationship vary according to the sex, age and nature of the relationship.

Gender Variations in Achieving Closeness

Previous research and results of this study, to this point suggest that females have more intimate friendships than males with regard to same-sex friendships. However, research by Camarena et al. (1990) suggests that these apparent sex differences may in part be attributed to the way friendship quality has been defined. Specifically, Camarena et al. suggest that friendship quality or intimacy operationalized as both Self-Disclosure and Shared Experience can serve as distinct processes or behaviors leading to Closeness. The results of Camarena et al. and the present study which replicated Camarena et al., support the importance of examining Closeness as an end state and Self-Disclosure and Shared Experience as behaviors that are linked to Closeness. Camarena et al. found that Self-Disclosure was a significant predictor of Closeness for both males and females, while, Shared Experience was only a significant predictor of Closeness for males. In an effort to replicate Camarena et al., for the entire sample, for same-sex friendships, Self-Disclosure was also found to be a significant predictor of Closeness for both males and females, while Shared Experience was a significant predictor of Closeness, but only for males.

In addition to Camarena et al., of additional interest was examining the paths to Closeness for boys and girls developmentally. The results revealed that for both grade five boys and girls, Self-Disclosure was a significant predictor of Closeness, while, Shared Experience was not for either girls or boys. For grade eight boys and girls, Self-Disclosure as well as Shared Experience emerged as significant predictors of Closeness. It was only in grade eleven that the sex differentiated pattern of predictors proposed by Camarena et al, emerged. Specifically, Self-Disclosure was found to be a significant

predictor of Closeness for both grade eleven boys and girls, although Shared Experience was also found to predict Closeness, but only for boys.

The postulate put forward by Camarena et al., (1990) that an alternate path to intimacy may exist for boys, and traditionally, girls gain intimacy through Self-Disclosure is consistent with research suggesting that sharing and talking are representative of girls same-sex friendships (Douvan & Adelson, 1966). Moreover, these findings are in line with research that suggests that boys and girls learn different social skills in different kinds of peer interaction. While "boys are learning to negotiate conflict" in competitive groups (Golombok, & Fivush, 1994, p.127), girls may be learning to communicate in smaller, dyadic interactions, and learning to participate in intimate self-disclosure (Eder & Hallinan, 1978). These findings are also consistent with results of studies of college students, indicating that females prefer talking and disclosing personal information about their feelings, while males friendships are based on shared activities (Auckett et al., 1988; Caldwell et al., 1982).

Although Camarena's et al. (1990) findings suggest an alternate path to Closeness, for males, the findings in the present study, suggest alternate conclusions. Although Shared Experience was a significant path to Closeness only for males, when examining the sample across grades, it is important to note that the variance accounted for by Shared Experience was significant, but not large. It is possible then, that this effect could be attributed to error variance in the data. Further, by examining the sample separately by grade, the path of Shared Experience to Closeness is not different or significant for boys and girls in grade five. In examining the findings for grade eight boys and girls, the results again suggest continuity between the sexes. Although Shared Experience is a significant path to Closeness for boys, it is also significant for girls. This finding is important as it differs from Camarena's findings for grade eight students. Although the findings in the present study may due to different samples (Canadian versus American), it

may also be due to changes inherent in the zeitgeist of socialization. Females may be much more involved in sharing activities at this particular age and time than previously reported. In contrast, in grade eleven, the sex differentiated patterns of predictors proposed by Camarena et al. strongly emerged. Shared Experience was a strong predictor of Closeness for boys, although not at all significant for girls. Therefore, it may be that this pattern emerges, but much later than Camarena et al. previously reported. It is also possible that boys change their style of expressing intimacy, and in grade eleven, Shared Experience is the channel appropriate and available to gaining Closeness.

In addition to these findings, the path from Self-Disclosure to Closeness was higher for boys than girls for the entire sample and at all ages. However, when examining the scatter plot of distributions for boys and girls separately, the findings revealed, a very skewed ceiling effect for the girls, but not for the boys. Therefore, the smaller range of scores for girls with regard to Self-Disclosure affect and underestimate the magnitude of the correlation for girls. Transformations were not employed, in order to not inherently create an inaccurate sample representation. Future research in test construction would benefit from a measure appropriate for this sample. Future research would also benefit from examining whether the content differ for boys and girls when self-disclosing. Caldwell et al. (1982) found that men and women differ in what they self-disclose. For example, women were more disclosing about feelings and men about shared interests.

Of additional interest, was whether opposite-sex friendships would have different paths to Closeness. The findings suggest that for all analyses conducted, Shared Experience is only a significant predictor to Closeness for grade five males, while Self-Disclosure is significant for both boys and girls and at all ages. First, for the most part, these results indicate that boys and girls with the opposite-sex may have some continuity in the style in which they gain or achieve closeness. Further, the findings suggest that

opposite-sex friends may not achieve closeness through shared common interests, with the exception of grade five males. Therefore, it may be that opposite-sex friends (males and females) rely on Self-Disclosure as a behavioral path to gaining Closeness.

Friendship Quality and Adjustment: Entire Sample

Of primary interest in the present study, was consideration of whether various aspects of friendship quality were related to three distinct indices of adjustment (Self-Worth, Depression and Alienation). Previous research (Buhrmester, 1990) found that friendship quality, defined primarily in terms of Self-Disclosure, was significantly related to various indices of adjustment. The present study extends previous research by considering SS and OS separately, and by considering multiple aspects of friendship quality, as well as overall evaluations of Closeness and Satisfaction. Further, the present study considered the relations between three separate indices of adjustment and friendship quality separately for males and females and across ages.

When the entire sample was considered, results of correlational analyses suggest that, consistent with research (Claes, 1992) aspects of friendship quality are indeed significantly related to indices of adjustment. Moreover, the relationships observed between various aspects of friendship quality and adjustment were similar across SS and OS friendships, although some aspects were characteristic of only SS or OS friendships.

With regard to SS friendships, it was interesting to find that adolescents who reported more Shared Experience, more Trust/Loyalty, along with less Conflict within their SS best friendships were more likely to feel positive about themselves overall, reporting higher levels of Self-Worth. In addition, for SS friendships, adolescents who reported more Self-Disclosure reported higher levels of Depression. Previous research on adolescents' same-sex friendships has found that Trust/Loyalty, more Self-Disclosure and the absence of Conflict were important to adolescence and were significantly related to an

adolescents' feeling more positive about themselves. The postulate put forward was that adolescent's who are able to verify one's opinion in friendships based on trust will increase feelings of security and provide support to the adolescent (Claes, 1992). Further, previous research (Buhrmester, 1990) and theory (Sullivan, 1953) suggest that self-disclosure with friends validate adolescent's ideas which increases and is critical to the adolescent's self-worth and personal adjustment. In the present study, Trust/Loyalty and less Conflict were significantly related to adolescent's reporting higher levels of Self-Worth thereby, supporting previous research. In contrast, however, Self-Disclosure was not significantly related to higher levels of Self-Worth, but was positively related to greater levels of Depression. These findings are inconsistent with Sullivan's notion that self-disclosure is critical and increases an adolescent's well-being. Perhaps then Mechanic's notion (1983) that intimate conversations with friends may actually lead to a focus on personal problems thereby increasing psychopathology applies to adolescents' friendships. In addition, previous research has specifically suggested, "the possibility to discuss one's problems, to share one's preoccupations and to verify one's opinions in relations based on trust predisposes the individual to feel secure and supported like in all modes of attachment" (Claes, 1992, p.52). These types of conclusions appear to characterize aspects of friendship quality as enmeshed and leading to the same outcome. For example, this statement seems to imply that self-disclosure and trust are commonly interdependent. However, in the present study it is apparent that by teasing apart the different aspects of friendship quality, it is clear that a much different pattern emerges. For example, by teasing apart aspects of friendship quality like Self-Disclosure, Trust/Loyalty, and Shared Experience, the results show that each aspect can have an independent effect on adjustment. In fact, Trust/Loyalty and Shared Experience do lead to better adjusted adolescents, but a different pattern emerges for Self-Disclosure which is related to feeling Depressed. In light of these findings, it may be that adolescents who

share activities together versus continuously self-disclosing are better adjusted because they do not focus on personal problems. These findings are also consistent with Hansel and Mechanic (1985) who state that individuals who report high introspectiveness, devoting much attention to thought and feelings about self, report more emotional distress, especially for females. Therefore, more self-disclosure may be a results of adolescents' who are high on introspectiveness explaining the higher levels of reported Depression. Of interest, is whether this varies for boys and girls by age, discussed in the following section.

When examining the relationship between aspects of friendship quality and Alienation, as can be seen in Table 4.11, the correlations are higher between friendship quality and Alienation then between aspects of friendship quality and Self-Worth and Depression. This would be expected as Alienation itself is about interpersonal relationships. As well, Depression and Self-Worth are more general and are more likely to encompass and be influenced by a number of domains in one's life besides interpersonal relationships. With regard to aspects of friendship quality, higher Alienation was reported among adolescents who reported more Conflict and less Self-Disclosure, Trust/Loyalty, Validation/Caring, Closeness and School Help.

In addition to SS friendships, the relationships observed between various aspects of friendship quality and adjustment were often similar across SS and OS relationships. For example (see Table 4.11) higher Self-Worth was observed among adolescents who reported less Conflict and more Trust/Loyalty in both SS and OS relationships. As well, greater Depression was observed among adolescents who reported more Conflict, in both SS and OS friendships. Further, higher Alienation was reported among adolescents who reported less Conflict, more Self-Disclosure, Trust/Loyalty, Validation/Caring and Closeness within SS and OS friendships. Moreover, some aspects of friendship were only common to SS. For example, Shared Experience was only significantly related to

adjustment within SS friendships, but not OS friendships. Although SS friendships have previously been found to be much more significant in early adolescence than OS friendships, in the present study, it may be that SS and OS are both important to adjustment, although this may vary by age (as discussed in the next section).

Friendship Quality and Adjustment by Age and Gender

By analyzing the findings by age and sex, the prediction that different aspects of friendship quality would contribute differentially to adjustment indices depending on the age and sex of the adolescent, was supported. In examining the findings, a complex pattern emerged, which suggests that the importance of friendship quality to different indices of adjustment varies and is different for boys and girls of different ages. For example, when examining the relations between friendship quality and Depression across gender and age groups (see Table 4.12) results indicated that most aspects of friendship quality for both OS and especially SS friendships, were significantly related to Depression, but this was true for only grade eleven males. Few or no significant correlations between friendship quality and Depression emerged among females or among younger (grade 5 and 8) males. Thus, for males, friendship quality may be particularly critical to Depression in later adolescence. For grade eleven males, greater Depression was associated with greater Closeness, Self-Disclosure, greater Shared Experience, greater School Help, greater Trust /Loyalty, and greater Conflict with their best SS male friend. Of particular interest is the finding that Self-Disclosure was significantly related to more Depression for these grade eleven males. In the previous section, it was noted that greater levels of Self-Disclosure were related to greater levels of Depression for SS friendships, overall. It was also noted that Hansel and Mechanic (1985) reported that higher levels of introspectiveness leads to individuals reporting feeling more emotional distress, which is more common among females. It was further

suggested that adolescent's who self-disclose more may be high on introspectiveness, therefore more depressed, especially females. Particularly, compelling in the present study, is that greater levels of Self-Disclosure with a SS best friend was only significantly related to Depression among grade eleven males. For grade five females, more Self-Disclosure with a SS best friend was related to feeling less depressed. These findings may imply then, that grade eleven males may be more introspective focusing on personal problems, thereby feeling more depressed then previously found in the literature. Future research would benefit from examining the whether males in grade eleven also report higher levels of Depression than females. In grade eleven, for males, it was also found that more reported Shared Experience with a SS best friend was also associated with Depression. These findings are in line with Csikszentmihalyi and Larson (1984) who state that freshmen (grade nine) "feel quite a bit happier with friends of the same-sex than with the opposite-sex, sophomores (grade 10) feel equally happy with both, and juniors (grade eleven) feel the best with the opposite-sex" (p. 161). The implications of these findings may be that shared experience with a SS best friend was associated with Depression, because males at this age may not have an more important OS friendship to spend time with, and thus are lonely. Therefore, the lack of an opposite-sex friend may be more of a contributor to depression than actually sharing activities with a same-sex best friend.

The increasing importance of opposite-sex friendships during adolescence (grade eleven) has clearly been demonstrated in the present study, and in previous research (Sharabany et al., 1981). Of interest was whether the importance of opposite-sex friendships to adjustment indices also becomes increasingly important, and if it differs with regard to gender. The present study does in fact suggest the increasing importance of OS to adjustment. For example, Closeness and Validation/Caring with an OS best friend are only significantly associated to both Self-Worth and Depression in grade

eleven, and only for males. Further, Trust/Loyalty with an OS best friend is significantly associated to Self-Worth but only in grade eleven and for females. These findings suggest then that the affective components of opposite-sex friends become increasingly important for both females and males, and in fact are related to the adolescent's well being.

In addition, previous research has examined the importance of intimate friendships to an adolescents well-being, and have implemented interventions for the enhancement of social skills within same-sex friendships particularly for boys (Shechtman et al., 1994). Shechtman et al. (1994) found that school intervention based on small, counseling groups designed to enhance closeness in dyadic relations among preadolescents who demonstrated social inefficacy, proved to be very successful in deepening intimate friendships, especially among preadolescent boys. It was clear from their findings that boys gained more from the experience. The implications from the present study that the affective components of opposite-sex friends become increasingly important for both females and males, and in fact are related to the adolescent's well being suggest that future research may not only implement interventions among same-sex friendships, but among best friends of the opposite-sex. Further, Furman (1993) has noted that "little is known about opposite-sex friendships" (p.94). This study clearly implies that in examining the importance of intimate friendships during the adolescent years, we must begin to become more sensitive not only to same-sex friendships, but opposite-sex friendships, and to the positive and negative features of friendships.

These results also suggest that it is not only important to look at whether friendship quality is important to adjustment at different times (Buhrmester, 1990) during adolescence, it is critical to examine and tease apart what aspects of friendship quality are important to adjustment at different ages during adolescence to ensure a better

understanding of how qualities of a best friendship (SS and OS) contribute to adjustment and well-being.

Limitations of the Study

In interpreting the results of the present study, some limitations should be considered. First, as correlational analyses were conducted, it was not possible to imply causality or imply friendship as a manifestation of well-being or well-being a manifestation of intimate friendships. Thus, even though relationships between friendship and adjustment were significant, we cannot assume one caused the other. Second, the generalizability of the study does not extend to reciprocated (mutual) dyads, as mutual versus unilateral dyads may contribute differently to adjustment as mutual friendships have found to be more stable (Bukowski & Newcomb, 1984). Third, a larger sample size would have been beneficial to allow for the consideration of interactive effects of both gender and age to adjustment. Finally, because of the scarcity of friendship quality measures for this age group, and because of the emergence of the same dimensions of friendships quality in SS and OS friendships in this study, on this newly created scale, future research would benefit from replication in a different sample.

ENDNOTES

1. Item 30 "My best friend and I always hang out during breaks and lunch time at school" was also found to load significantly on the School Help subscale, but only for SS (loading = .50), not for OS friendships; Therefore, the item was deleted from the computation of the final subscale, to maximize commonality between SS and OS scales. Item 39 "My best friend and I bug each other alot" loaded on both the SS and OS Conflict subscale (loading = .42/44), but because of the low communality variance accounted for, was not included in the final computation. Although Items 53 "My best friend cares about my feelings" 12 "I can think of times my best friend has said mean things about me" loaded on both SS and OS Trust.Loyalty factors, Item 53 did not load significantly on the SS factor, and item 12 loaded significantly only on the SS factor, therefore, these items were not included in the final computation. Item 18 "My best friend makes me feel good about my ideas" loaded significantly on the Validation/Caring subscale but only for SS (loading = .59). Therefore, the item was not included in the final analysis, again to maximize commonality between SS and OS subscales.

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Appendix A

Letter to School District

To Whom It May Concern:

I am writing to inquire about possibly conducting a research study in your school district. Briefly, the purpose of the proposed study is twofold. The developmental literature suggests that friendships are a particularly important social relationship during preadolescence and adolescence, and adolescents with closer or more intimate friends with have higher self-worth; therefore, the purpose is to empirically evaluate which aspects of adolescents' friendships are related to the well-being of the adolescent and the second purpose is to examine age and gender variations in adolescent friendships.

To conduct my investigation, I would administer three sets of questionnaires given during two regular class periods. One set of questionnaires ask students about their friendships; another set of questionnaires asks students how they feel about themselves, and a third set of questionnaires asks about background (age,) and family (number of siblings). Approximately three hundred students (50female/50 male) from three grades (5,8,11) will be asked to participate. All information collected will be entirely confidential and both student and parent consent will be obtained.

If I am able to conduct my research in this district. I would be very grateful. I believe that the findings of this project will have important implications for our understanding of adolescent peer relationships. An increased understanding of the role of particular aspects of friendships during this period will also help those concerned better facilitate social adjustment during the adolescent period.

Because I believe that it is important for Educators to be informed about research, I would present a copy of my final thesis to teachers and administrators in the School District. Included with the application from are copies of the measures and consent forms I would use in the proposed study.

I look forward to hearing from you.

Sincerely,

Lisa Sterling
Graduate Student

Dr. Shelley Hymel
Associate Professor
EPSE

Dr. Kim Schonert-Reichl
Assistant Professor
EPSE

Appendix B

Student Recruitment Form

Dear Student:

You are invited to participate in a research project called "Friendship Quality During Adolescence." More research is needed about friendships of children and adolescents, particularly Canadian children and adolescents, and your help is important to get this information. This study is being organized by Lisa Sterling and her advisors from the University of British Columbia. The purpose of this study is to get information about your views about your best friend and yourself. This is not a test and there are no right or wrong answers. We hope that the results of this study will help teachers and parents understand the way students think about friendships.

If you decide to participate in this study, you will be asked to fill out three sets of questionnaires. One set of questionnaires asks you about your friendship with a same-sex and opposite-sex best friend. Another set of questionnaires will ask you how you feel about yourself. A third set of questionnaires will ask you about your general background, for example age, sex, number of brothers and sisters. It's important for you to know that your name will not be kept with your answers so that no one but the researchers will know who answered the questions. In other words, all your answers will be completely confidential. Those students who do not participate in this project will be given some other class work to do in the class while we complete the questionnaires.

In order for you to participate in the study, you need to take home the permission slip on the next page and give it to your parents or guardian to be signed. Please do your best to return your permission slip by TOMMORROW. Thank you for your help in this project. We look forward to having you in our project.

Sincerely,

Lisa Sterling
Graduate student

Dr. Shelley Hymel
Associate Professor
EPSE

Dr. Kimberly Schonert-Reichl
Assistant Professor
EPSE

Appendix C

Parent Permission Slips

Dear Parent or Guardian:

I am writing to request your permission for your son or daughter to participate in a research project entitled "Friendship Quality During Adolescence." The purpose of this project is to learn about how students' think about their best friendships and themselves. It is hoped that the results of this project will help educators better understand the importance of friendships during the teen years. The study is being coordinated by Lisa Sterling and her advisors Dr. Shelley Hymel and Dr. Kimberly Schonert-Reichl, for Miss Sterling's graduate thesis at the University of British Columbia.

Your son/daughter will be asked to fill out three sets of questionnaires at school. In order to minimize concerns over use of class time, we have designed the study to be completed in only one-and-a-half class periods. One set of questionnaires asks about students' friendships. Another set of questionnaires asks the students how they feel about themselves, and a third set of questionnaires asks about background (age, sex) and family (number of brothers and sisters). Participation in this study is entirely voluntary and withdrawal from the research study or refusal to participate will not jeopardize class standing in any way. All information collected will be strictly confidential and will not be available for students, teachers, parents or other school personnel. Students who do not participate will be given other classwork to do while classmates fill out the questionnaires.

We will be pleased if your daughter/son does decide to participate and, if you are willing, to give him or her permission to do so. If you have any questions or suggestions and wish to further discuss this project, feel free to call Miss Sterling, Dr. Schonert-Reichl or Dr. Hymel. Feel free to keep a copy of this request for your records. We would appreciate it if you would indicate on the slip provided on the next page whether or not your son/daughter has permission to participate. Would you then kindly sign and date the slip and have you son/daughter return it to school as soon as possible? Thank you very much for your help on this project.

Sincerely,

Lisa Sterling
Graduate Student
University of British Columbia

Dr. Shelley Hymel
Associate Professor
EPSE

Dr. Kimberly Schonert-Reichl
Assistant Professor
EPSE

PARENT CONSENT FORM

Study Title: "Friendship Quality During Adolescence."

Researchers:

Lisa Sterling
Graduate Student
University of British Columbia

Shelley Hymel, Ph.D.
Associate Professor
Educational Psychology
University of British Columbia
2125 Main Mall
Vancouver, B.C. V6T 1Z4

Kimberly Schonert-Reichl, Ph.D.
Assistant Professor
Educational Psychology
University of British Columbia
2125 Main Mall
Vancouver, B.C. V6T 1Z4

I have read and understood the attached letter describing the study called "Friendship Quality During Adolescence."

I have also kept copies of both the letter describing the study and this permission slip.

_____ Yes, my daughter/son has permission to participate.

_____ No, my daughter/son does not have permission to participate.

Parent's Signature _____

Son or Daughter's name _____

Date _____

Appendix D

Student Consent Form

The purpose of this form is to give you the information you need to decide whether or not you would like to participate in this research project called "Friendship Quality During Adolescence." You may choose not to participate in this study now or at any point during the study and there will be absolutely no penalty for withdrawing. If you choose not to participate, that choice will not in any way effect your class standing or school work.

The purpose of this study is to find out about your views about your best friend and yourself. You will be asked to fill out several questionnaires. One set of questionnaires will ask you about your friendships. Another set will ask you questions about how you feel about yourself and a third set will ask you about your background and family. THIS IS NOT A TEST. There are no wrong or right answers - just what you think. Please answer all questions if you can.

Your name will not be kept with your answers so no one will know who answered the questions. All answers are completely confidential.

We will be happy to answer any questions you have before signing or later. If you have any questions, please let us know.

If you wish to participate in this study, please acknowledge that you have read this form and had any questions answered and then sign below.

Thank you for your help.

DATE _____

NAME (please print)

SIGNATURE

Appendix E

Script For Administrators

INSTRUCTIONS FOR ADMINISTRATOR

SEQUENCE OF EVENTS:

- 1) Arrive at scheduled time _____, appropriately dressed.
- 2) Introduce yourself and others to teachers.
- 3) Teachers remain in room for possible discipline problems
- 4) Teachers arrange students/ have students clear off desks/ move desks apart/ take out only a pen/pencil.

Introduction to Students:

Hello. My name is _____ and this is _____.

We came here today to ask your help on a research project we are working on at our school, UBC. Does anybody know what a research project is? (Solicit answers).

In our research project, we want to find out about how students your age think about different things at school, especially what you think about how you feel about yourself and how you get along with others your age.

You will be telling us what you think by filling out some questionnaires. One thing you need to know, before we start, is that this is not a test. You won't be graded and there are no right or wrong answers to any of these questions. We just want to know about what you think and feel about these things. I also think you will find it interesting and kind of fun to do and it won't take too much of your time. OK?

Before we start to fill out the questionnaires, I need to tell you a few things.

Non-participating students:

First, only those students who brought back their parent consent forms and whose parents said they could participate in the project will fill out our questionnaires. Those students who did not bring back their forms, or whose parents did not give them permission will not be filling out questionnaires.

I will read off a list of student who will NOT participate. If I call your name, you will need to move to the _____ part of the classroom and talk to your teacher about doing a different assignment while the rest of the class works on my questionnaires.

These are the students who can not fill out questionnaires. (*List attached)

Confidentiality Issues:

Okay, now for those of you who will be filling out the questionnaires, I want to tell you about your answers. Remember, THIS IS NOT A TEST - you won't be graded, there are no right or wrong answers, it's just how you feel and what you think --- that's what we want to know. It's just your opinion that is important. So, I really want you to be honest when you fill out the questionnaires. You don't have to worry about what you mark down on the questionnaires because your answers are confidential. Who

knows what confidential means? (enlist students answers - usually getting answers like "secret" or "private")

So, if we say something is confidential, we mean that it is secret or private. So your answers to all of these questions are private or confidential. I won't show them to any of your classmates, I won't show them to anyone, So you can be honest when you fill out these questionnaires because we won't show your answers to anyone. Your answers are private so you should keep them private. You should not talk to your classmates at all while we are filling out these questionnaires.

"No Talking"

Now if I am going to keep your answers confidential, you have to agree to keep them confidential, too. I am interested in what YOU think, and how YOU feel. That means that, once we begin on these questionnaires, there is no talking to your neighbors, no looking on someone else's questionnaires. If your answers are confidential, that means that you are to share them with no one. Everybody has different opinions, people don't think and feel the same way about things. That's okay. Don't worry about what anyone else puts down. Just mark how you feel. Everybody got the idea?

Are you ready to begin? You will need a pencil or pen to fill out the questionnaires.

Student consent forms

For those of you who have received permission from your parents to work with us on this project, we also need to verify that you agree to participate. ____ and ____ are passing out a consent form to each of you. It tells about the research project and asks for your help on the project. If you agree to participate in the project with us today, you need to sign this form. If you do not want to participate, you do not have to - that is your right. We really need your help on this project and we hope that all of you will participate, but if you are not serious about it, you can see your teacher about other work to do in the next hour.

____ and ____ will collect your signed forms and also hand out an envelope of questionnaires to each of you now.

Background Information Questionnaire

Please open your envelope and take out the questionnaires, but for now just look at the first page, which is entitled, "Background Information"
(see examiners form, next page, read aloud)

Instructions questionnaire

(Put response scale on board)

Examiner reads through example questions and information on:

- no right or wrong answers
- for confidentiality use code numbers
- look at list of names and find your name and code
and put your code on the manila envelope (*HOLD UP ENVELOPE)

MY BEST FRIENDS questionnaire - go through out loud

Appendix F

Background Information Questionnaire

We need to know something about your background for this study. Please provide the following information about who you are. Remember, all responses will be treated as confidential.

1. Are you (CIRCLE ONE)

Female1

Male2

2. How old are you? (CIRCLE ONE)

9 10 11 12 13 14 15 16 17 18 19

3. When is your birthday? _____
(MONTH) (DAY) (YEAR YOU WERE BORN)

4. What grade are you in this year? (CIRCLE ONE)

5 6 7 8 9 10 11 12

5. How many OLDER brothers do you have? _____

6. How many YOUNGER brothers do you have ? _____

7. How many OLDER sisters do you have ? _____

8. How many YOUNGER sisters do you have? _____

9. What is your ethnic or cultural heritage? _____

Appendix G

Friendship Assessment Questionnaires

MY BEST FRIENDS☺

On the next few questionnaires, we would like to know about you and your friends. To make sure that all of your answers are confidential, please be sure to use the special code numbers from your class list instead of names.

First, we want you to think about who your friends **are**, especially within this school.

We will begin by having you think about your friends who are the same sex as you (so, boys will think about other boys and girls will think about other girls who are their friends). Look through the class list provided and select **three** students who are the **same sex** as you and who you consider to be your **friends**. Please look through the whole list to make sure you have the names of three friends of the same sex. If one of your close friends is not on the list, you can add his or her name to the list and add your own three-digit special code number for his or her name.

A. In the spaces below, write the CODE numbers for each of your three friends that are the same sex as you. Then, for **each** friend, tell us how long you have been friends and how close you are as a friend.

CODE number of each same sex friendship? friend:	How many years have you been friends with this person?	Of all of your friends (both boys and girls), how would you rate this particular (Circle one number.)												
a) _____	_____ years	<table border="0" style="width: 100%;"> <tr> <td style="width: 10%;">Casual</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 50%;"></td> </tr> <tr> <td>Friend</td> <td></td> <td></td> <td></td> <td></td> <td>One of my best or closest friends</td> </tr> </table>	Casual	1	2	3	4		Friend					One of my best or closest friends
Casual	1	2	3	4										
Friend					One of my best or closest friends									
b) _____	_____ years	<table border="0" style="width: 100%;"> <tr> <td style="width: 10%;">Casual</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 50%;"></td> </tr> <tr> <td>Friend</td> <td></td> <td></td> <td></td> <td></td> <td>One of my best or closest friends</td> </tr> </table>	Casual	1	2	3	4		Friend					One of my best or closest friends
Casual	1	2	3	4										
Friend					One of my best or closest friends									
c) _____	_____ years	<table border="0" style="width: 100%;"> <tr> <td style="width: 10%;">Casual</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 50%;"></td> </tr> <tr> <td>Friend</td> <td></td> <td></td> <td></td> <td></td> <td>One of my best or closest friends</td> </tr> </table>	Casual	1	2	3	4		Friend					One of my best or closest friends
Casual	1	2	3	4										
Friend					One of my best or closest friends									

B. Now, choose **one** out of the three friends you named above who you think is your **best** friend and write this person's CODE NUMBER below.

Best friend of the same sex: _____

C. In the space below, tell me why you feel especially close to this **best** friend.

REMEMBER NO ONE ELSE WILL KNOW WHO YOU WROTE DOWN

MORE BEST FRIENDS☺

Now we would like you to think about your friends who are of the opposite sex (so, boys will think about girls who are their friends and girls will think about boys who are their friends). Choosing someone of the opposite sex as a friend does not have to mean that you are dating or anything, just that you are friends. Look through the class list provided and select **three** students who are the **opposite sex** as you and who you consider to be your **friends**. Please look through the whole list to make sure you have the names of three friends of the opposite sex. If one of your close opposite-sex friends is not on the list, you can add his or her name to the list and add your own three-digit special code number for his or her name.

A. In the spaces below, write the CODE numbers for each of your three friends that are the opposite sex as you. Then, for **each** friend, tell us how long you have been friends and how close you are as a friend.

CODE number of each opposite sex friend:	How many years have you been friends with this person?	Of all of your friends (both boys and girls), how would you rate this particular friendship? (Circle one number.)						
a) _____	_____ years	<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">Casual Friend</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 45%;">One of my best or closest friends</td> </tr> </table>	Casual Friend	1	2	3	4	One of my best or closest friends
Casual Friend	1	2	3	4	One of my best or closest friends			
b) _____	_____ years	<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">Casual Friend</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 45%;">One of my best or closest friends</td> </tr> </table>	Casual Friend	1	2	3	4	One of my best or closest friends
Casual Friend	1	2	3	4	One of my best or closest friends			
c) _____	_____ years	<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">Casual Friend</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 45%;">One of my best or closest friends</td> </tr> </table>	Casual Friend	1	2	3	4	One of my best or closest friends
Casual Friend	1	2	3	4	One of my best or closest friends			

B. Now, choose **one** out of the three friends you named above who you think is your **best** friend and write this person's CODE NUMBER below.

Best friend of the opposite sex: _____

C. In the space below, tell me why you feel especially close to this **best** friend.

REMEMBER NO ONE ELSE WILL KNOW WHO YOU WROTE DOWN

Appendix H

Friendship Questionnaire

ME AND MY FRIEND

Write in the CODE NUMBER of your BEST FRIEND of the SAME SEX
(from previous page) _____.

Now, think about your friendship with this best friend and answer each of the following questions about your friendship.
PLEASE ANSWER HONESTLY AND QUICKLY.

- | | | | | | |
|--|-----|-----|-----------|----|----|
| 1. My best friend and I live really close to each other. | YES | yes | sometimes | no | NO |
| 2. My best friend and I always spend lunch period together. | YES | yes | sometimes | no | NO |
| 3. My best friend and I have shared many experiences with one another. | YES | yes | sometimes | no | NO |
| 4. My best friend understands what I'm really like. | YES | yes | sometimes | no | NO |
| 5. My best friend and I get mad at each other a lot. | YES | yes | sometimes | no | NO |
| 6. My best friend compliments me on my strong points (tells me I'm good at things). | YES | yes | sometimes | no | NO |
| 7. If others were talking behind my back, my best friend would stick up for me. | YES | yes | sometimes | no | NO |
| 8. My best friend accepts me, no matter what I do. | YES | yes | sometimes | no | NO |
| 9. My best friend and I make each other feel important and special. | YES | yes | sometimes | no | NO |
| 10. My best friend and I always choose each other as partners. | YES | yes | sometimes | no | NO |
| 11. If my best friend hurts my feelings, he or she apologizes (says, "I'm sorry"). | YES | yes | sometimes | no | NO |
| 12. I can think of times when my best friend has said mean things about me to other people (behind my back). | YES | yes | sometimes | no | NO |
| 13. I can always count on my best friend for good ideas about things to do. | YES | yes | sometimes | no | NO |
| 14. If my best friend and I get mad at each other, we can always talk about how to get over it. | YES | yes | sometimes | no | NO |
| 15. My best friend would be friends with me even if others didn't like me. | YES | yes | sometimes | no | NO |
| 16. My best friend tells me I'm smart. | YES | yes | sometimes | no | NO |
| 17. My best friend and I can always talk to each other about our problems. | YES | yes | sometimes | no | NO |
| 18. My best friend makes me feel good about my ideas. | YES | yes | sometimes | no | NO |

19. My best friend and I are in the same clubs or on the same teams.	YES	yes	sometimes	no	NO
20. When I'm mad about something that happened to me, I can always talk to my best friend about it.	YES	yes	sometimes	no	NO
21. My best friend and I help each other a lot (with projects or chores or schoolwork).	YES	yes	sometimes	no	NO
22. My best friend and I do special favors for each other.	YES	yes	sometimes	no	NO
23. My best friend and I see each other as often as we can.	YES	yes	sometimes	no	NO
24. My best friend and I spend time together at activities.	YES	yes	sometimes	no	NO
25. My best friend and I often argue.	YES	yes	sometimes	no	NO
26. My best friend comes to me for advice.	YES	yes	sometimes	no	NO
27. I can always count on my best friend to keep promises.	YES	yes	sometimes	no	NO
28. I am satisfied with my relationship with my best friend.	YES	yes	sometimes	no	NO
29. My best friend and I go to each other's house after school and on weekends.	YES	yes	sometimes	no	NO
30. My best friend and I always hang out during breaks and lunch time at school.	YES	yes	sometimes	no	NO
31. When I'm having trouble figuring out something, I usually ask my best friend for help and advice.	YES	yes	sometimes	no	NO
32. My best friend and I go to lots of places together.	YES	yes	sometimes	no	NO
33. My best friend and I talk about the things that make us sad or upset.	YES	yes	sometimes	no	NO
34. My best friend and I always make up easily when we have a fight or argument.	YES	yes	sometimes	no	NO
35. My best friend and I fight or argue.	YES	yes	sometimes	no	NO
36. My best friend and I always share things like books, food, equipment, makeup and all sorts of things.	YES	yes	sometimes	no	NO
37. If my best friend and I are mad at each other, we always talk about what would make us feel better.	YES	yes	sometimes	no	NO
38. If I told my best friend a secret, I could trust him or her not to tell anyone else.	YES	yes	sometimes	no	NO
39. My best friend and I bug each other a lot.	YES	yes	sometimes	no	NO

40. My best friend and I always come up with good ideas on ways to do things together.	YES	yes	sometimes	no	NO
41. My best friend and I loan each other things.	YES	yes	sometimes	no	NO
42. My best friend often helps me with things so I can get done quicker.	YES	yes	sometimes	no	NO
43. My best friend and I join things together so we can be together.	YES	yes	sometimes	no	NO
44. My best friend and I always get over arguments really quickly.	YES	yes	sometimes	no	NO
45. I can go to my best friend for advice.	YES	yes	sometimes	no	NO
46. My best friend and I always count on each other for ideas on how to get things done.	YES	yes	sometimes	no	NO
47. My best friend and I have been through a lot together.	YES	yes	sometimes	no	NO
48. My best friend doesn't listen to me.	YES	yes	sometimes	no	NO
49. My best friend and I often share secrets and private thoughts.	YES	yes	sometimes	no	NO
50. My best friend and I often help each other with schoolwork.	YES	yes	sometimes	no	NO
51. My best friend and I are really close.	YES	yes	sometimes	no	NO
52. I can think of lots of secrets my best friend and I have told each other.	YES	yes	sometimes	no	NO
53. My best friend cares about my feelings.	YES	yes	sometimes	no	NO
54. My best friend is important to me.	YES	yes	sometimes	no	NO
55. My best friend and I often hang out together.	YES	yes	sometimes	no	NO
56. I know how my best friend feels about things even without his/her telling me.	YES	yes	sometimes	no	NO
57. I speak up to defend my best friend when others say bad things about him/her.	YES	yes	sometimes	no	NO
58. I feel free to talk with my best friend about almost everything.	YES	yes	sometimes	no	NO
59. If my best friend wants something, I let him/her have it even if I want it too.	YES	yes	sometimes	no	NO
60. My best friend seems to know when I am upset about something.	YES	yes	sometimes	no	NO
61. My best friend will stick up for me even when I'm not around.	YES	yes	sometimes	no	NO
62. I know I can count on my friend to tell me the truth.	YES	yes	sometimes	no	NO
63. I can count on my best friend's help whenever I ask for it.	YES	yes	sometimes	no	NO

- | | | | | | |
|--|-----|-----|-----------|----|----|
| 64. I feel comfortable being myself with my best friend. | YES | yes | sometimes | no | NO |
| 65. My best friend is very loyal to me. | YES | yes | sometimes | no | NO |
| 66. I can count on my best friend to tell me what he/she really thinks about me. | YES | yes | sometimes | no | NO |

ME AND MY FRIEND

Write in the **CODE NUMBER** of your **BEST FRIEND** of the **OPPOSITE SEX**
(from previous page) _____.

Now, think about your friendship with this best friend and answer each of the following questions about your friendship. **PLEASE ANSWER HONESTLY AND QUICKLY.**

- | | |
|--|---------------------------------|
| 1. My best friend and I live really close to each other. | YES yes sometimes no NO |
| 2. My best friend and I always spend lunch period together. | YES yes sometimes no NO |
| 3. My best friend and I have shared many experiences with one another. | YES yes sometimes no NO |
| 4. My best friend understands what I'm really like. | YES yes sometimes no NO |
| 5. My best friend and I get mad at each other a lot. | YES yes sometimes no NO |
| 6. My best friend compliments me on my strong points (tells me I'm good at things). | YES yes sometimes no NO |
| 7. If others were talking behind my back, my best friend would stick up for me. | YES yes sometimes no NO |
| 8. My best friend accepts me, no matter what I do. | YES yes sometimes no NO |
| 9. My best friend and I make each other feel important and special. | YES yes sometimes no NO |
| 10. My best friend and I always choose each other as partners. | YES yes sometimes no NO |
| 11. If my best friend hurts my feelings, he or she apologizes (says, "I'm sorry"). | YES yes sometimes no NO |
| 12. I can think of times when my best friend has said mean things about me to other people (behind my back). | YES yes sometimes no NO |
| 13. I can always count on my best friend for good ideas about things to do. | YES yes sometimes no NO |
| 14. If my best friend and I get mad at each other, we can always talk about how to get over it. | YES yes sometimes no NO |
| 15. My best friend would be friends with me even if others didn't like me. | YES yes sometimes no NO |
| 16. My best friend tells me I'm smart. | YES yes sometimes no NO |
| 17. My best friend and I can always talk to each other about our problems. | YES yes sometimes no NO |
| 18. My best friend makes me feel good about my ideas. | YES yes sometimes no NO |
| 19. My best friend and I are in the same clubs or on the same teams. | YES yes sometimes no NO |

20. When I'm mad about something that happened to me, I can always talk to my best friend about it.	YES	yes	sometimes	no	NO
21. My best friend and I help each other a lot (with projects or chores or schoolwork).	YES	yes	sometimes	no	NO
22. My best friend and I do special favors for each other.	YES	yes	sometimes	no	NO
23. My best friend and I see each other as often as we can.	YES	yes	sometimes	no	NO
24. My best friend and I spend time together at activities.	YES	yes	sometimes	no	NO
25. My best friend and I often argue.	YES	yes	sometimes	no	NO
26. My best friend comes to me for advice.	YES	yes	sometimes	no	NO
27. I can always count on my best friend to keep promises.	YES	yes	sometimes	no	NO
28. I am satisfied with my relationship with my best friend.	YES	yes	sometimes	no	NO
29. My best friend and I go to each other's house after school and on weekends.	YES	yes	sometimes	no	NO
30. My best friend and I always hang out during breaks and lunch time at school.	YES	yes	sometimes	no	NO
31. When I'm having trouble figuring out something, I usually ask my best friend for help and advice.	YES	yes	sometimes	no	NO
32. My best friend and I go to lots of places together.	YES	yes	sometimes	no	NO
33. My best friend and I talk about the things that make us sad or upset.	YES	yes	sometimes	no	NO
34. My best friend and I always make up easily when we have a fight or argument.	YES	yes	sometimes	no	NO
35. My best friend and I fight or argue.	YES	yes	sometimes	no	NO
36. My best friend and I always share things like books, food, equipment, makeup and all sorts of things.	YES	yes	sometimes	no	NO
37. If my best friend and I are mad at each other, we always talk about what would make us feel better.	YES	yes	sometimes	no	NO
38. If I told my best friend a secret, I could trust him or her not to tell anyone else.	YES	yes	sometimes	no	NO
39. My best friend and I bug each other a lot.	YES	yes	sometimes	no	NO
40. My best friend and I always come up with good ideas on ways to do things together.	YES	yes	sometimes	no	NO

41. My best friend and I loan each other things.	YES	yes	sometimes	no	NO
42. My best friend often helps me with things so I can get done quicker.	YES	yes	sometimes	no	NO
43. My best friend and I join things together so we can be together.	YES	yes	sometimes	no	NO
44. My best friend and I always get over arguments really quickly.	YES	yes	sometimes	no	NO
45. I can go to my best friend for advice.	YES	yes	sometimes	no	NO
46. My best friend and I always count on each other for ideas on how to get things done.	YES	yes	sometimes	no	NO
47. My best friend and I have been through a lot together.	YES	yes	sometimes	no	NO
48. My best friend doesn't listen to me.	YES	yes	sometimes	no	NO
49. My best friend and I often share secrets and private thoughts.	YES	yes	sometimes	no	NO
50. My best friend and I often help each other with schoolwork.	YES	yes	sometimes	no	NO
51. My best friend and I are really close.	YES	yes	sometimes	no	NO
52. I can think of lots of secrets my best friend and I have told each other.	YES	yes	sometimes	no	NO
53. My best friend cares about my feelings.	YES	yes	sometimes	no	NO
54. My best friend is important to me.	YES	yes	sometimes	no	NO
55. My best friend and I often hang out together.	YES	yes	sometimes	no	NO
56. I know how my best friend feels about things even without his/her telling me.	YES	yes	sometimes	no	NO
57. I speak up to defend my best friend when others say bad things about him/her.	YES	yes	sometimes	no	NO
58. I feel free to talk with my best friend about almost everything.	YES	yes	sometimes	no	NO
59. If my best friend wants something, I let him/her have it even if I want it too.	YES	yes	sometimes	no	NO
60. My best friend seems to know when I am upset about something.	YES	yes	sometimes	no	NO
61. My best friend will stick up for me even when I'm not around.	YES	yes	sometimes	no	NO
62. I know I can count on my friend to tell me the truth.	YES	yes	sometimes	no	NO
63. I can count on my best friend's help whenever I ask for it.	YES	yes	sometimes	no	NO
64. I feel comfortable being myself with my best friend.	YES	yes	sometimes	no	NO

65. My best friend is very loyal to me.

YES yes sometimes no NO

66. I can count on my best friend to tell me what he/she really
thinks about me.

YES yes sometimes no NO

Appendix I

Rosenberg (1965) General Self-worth Scale

For the next set of questions, we would like to find out how you feel about yourself as a person. For each of the following statements, circle one word that best describes you.

- | | | | | | |
|--|-----|-----|-----------|----|----|
| 1. On the whole, I am satisfied with myself. | YES | yes | sometimes | no | NO |
| 2. At times I think I am no good at all. | YES | yes | sometimes | no | NO |
| 3. I feel I have a number of good qualities. | YES | yes | sometimes | no | NO |
| 4. I am able to do things as well as most people. | YES | yes | sometimes | no | NO |
| 5. I certainly feel useless at times. | YES | yes | sometimes | no | NO |
| 6. All in all, I am inclined to feel that I am a failure. | YES | yes | sometimes | no | NO |
| 7. There is little that I can do to change many of the things that happen to me. | YES | yes | sometimes | no | NO |
| 8. I have little control over things that happen to me. | YES | yes | sometimes | no | NO |
| 9. Those who are always trying to get ahead in life will never be happy. | YES | yes | sometimes | no | NO |
| 10. You should always try to improve your position in life rather than accept what you have now. | YES | yes | sometimes | no | NO |

Appendix J

Social Alienation Toward Classmates

Remember, for each of the following statements, please circle the word that best describes you.

- | | | | | | |
|--|-----|-----|-----------|----|----|
| 1. I like my classmates. | YES | yes | sometimes | no | NO |
| 2. My classmates like me. | YES | yes | sometimes | no | NO |
| 3. I look forward to seeing my friends. | YES | yes | sometimes | no | NO |
| 4. My best friends are in this school. | YES | yes | sometimes | no | NO |
| 5. My friends want to finish school. | YES | yes | sometimes | no | NO |
| 6. My classmates think I am important. | YES | yes | sometimes | no | NO |
| 7. I can trust my friends at school. | YES | yes | sometimes | no | NO |
| 8. It is easy for me to make friends. | YES | yes | sometimes | no | NO |
| 9. I am as popular as the average student. | YES | yes | sometimes | no | NO |
| 10. My friends care if I graduate. | YES | yes | sometimes | no | NO |
| 11. I am lonely in school. | YES | yes | sometimes | no | NO |
| 12. I get into lots of fights. | YES | yes | sometimes | no | NO |
| 13. I am different from my classmates. | YES | yes | sometimes | no | NO |
| 14. I can always find a friend. | YES | yes | sometimes | no | NO |
| 15. My classmates like my sense of humor. | YES | yes | sometimes | no | NO |
| 16. It is hard to get other kids to like me. | YES | yes | sometimes | no | NO |
| 17. I can always depend on friends. | YES | yes | sometimes | no | NO |
| 18. It is easy for me to talk to classmates. | YES | yes | sometimes | no | NO |
| 19. If I did not come to school I'd be missed. | YES | yes | sometimes | no | NO |
| 20. My classmates often ask my opinion. | YES | yes | sometimes | no | NO |
| 21. If I moved away I'd miss my classmates. | YES | yes | sometimes | no | NO |
| 22. I would join clubs or teams if asked. | YES | yes | sometimes | no | NO |

23. I feel left out of fun things.	YES	yes	sometimes	no	NO
24. Nobody really knows how I feel.	YES	yes	sometimes	no	NO
25. My classmates ask me to their parties.	YES	yes	sometimes	no	NO
26. I have trouble getting along with people in class.	YES	yes	sometimes	no	NO