

Self-disclosure to Siblings and Friends in Middle Childhood and Early Adolescence

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Abstract

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This study addressed children's and young adolescents' self-disclosure to siblings and friends, because these dyadic relationships are essential contexts for disclosure. Twenty-four boys and 22 girls in the 4th grade (M age = 9.48, SD = .59), and 19 boys and 28 girls in the 6th grade (M age = 11.15 years, SD = .55) participated. The students were interviewed regarding their sibling and friend disclosure, and completed the Sibling Relationship Questionnaire (Furman & Buhrmester, 1985) and the Friendship Activity Questionnaire (Bukowski, Hoza, & Boivin, 1994). Analyses revealed participants were more likely to disclose peer and academic issues, as well as shared interests to friends compared to siblings. Older participants disclosed more about peer problems and interest in the opposite sex with their best friend than their younger counterparts. Compared to girls, boys reported discussing shared interests more frequently with both their siblings and friends. Same-gender sibships were more likely to self-disclose, yet the lack of cross-gender friendships made it impossible to address possible moderating effects. Respondents who disclosed to their sibling reported higher rates of warmth, rivalry, conflict, and overall quality in their sibling relationships. Older boys and girls who did not disclose to their friends reported greater conflict in their friendships, while the frequency of friend disclosure was positively related to overall friendship quality. Finally, a positive relationship was found for frequency of self-disclosure to siblings and friends, indicating a possible interaction between these two relationships. Findings are discussed in light of the recent theory and empirical literature.

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Dedication

This thesis is dedicated to my younger brothers, Berne Jonathan and Bruce. They have taught me the value of a loving and supportive sibling relationship and continue to inspire me.

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Statement of the Problem

Sibling relationships and friendships provide essential interpersonal experiences for children and adolescents (Dunn, 2002; Hartup, 1989). Siblings often have a long history of shared environments, positive exchanges, conflict, and rivalry in an obligatory relationship (Dunn, 2002; Furman & Buhrmester, 1985b), while friends often share mutual preferences, greater reciprocity, and loyalty in this voluntary relationship (Berndt & Perry, 1986; Hartup, 1989). Nevertheless, sibling relationships and friendships both provide boys and girls with emotional support, companionship, and intimacy (Furman & Buhrmester, 1985a, 1985b). They are also sources of social input exchange (Buhrmester & Prager, 1995) and guidance, specifically self-disclosure.

Self-disclosure is the mutual revealing of personal information (Jourard, 1971a, 1971b). Relationship and self-disclosure theory indicate that this process is an important factor in forming positive relationships by promoting increased intimacy and trust (Buhrmester & Furman, 1987; Hinde, 1979; Jourard, 1971a, 1971b). Previous literature on disclosure activity has focused primarily on adult and parent-child relationships, with some attention on peer relationships (Buhrmester & Prager, 1995), whereas fewer studies have compared children's self-disclosure to siblings and friends. Although the attachments made in these relationships meet the conditions necessary for sharing personal information (Hinde, 1979), comparing how child and adolescent sibling relationships and friendships facilitate self-disclosure has yet to be studied empirically. This leaves several questions unanswered, particularly the following: What role does sibling relationship and friendship quality play in the nature and frequency of self-disclosure across the periods of middle childhood and early adolescence?

Determining how sibling relationships and friendships operate and the disclosure that ensues has important implications for parents, researchers, and educators. First, comparing these two central relationships will highlight their relational and individual differences. Second, exploring the nature and frequency of self-disclosure in sibling relationships and friendships can shed light on a critical function of intimate relationships. Finally, investigating developmental changes in relationships with siblings and friends will contribute to a better understanding of the structures of children and adolescents' social networks.

Introduction

Children's social networks consist of numerous distinct relationships. These relationships contribute to boys' and girls' development by providing a context for learning how to understand and respond to others' emotions and thoughts (Hartup, 1989; Dunn, 2002). According to Hinde (1979, 1995), relationships are defined as sequences of mutual behavioral exchanges between two individuals over a given time period. Asymmetrical dominance between two individuals distinguishes complementary relationships, whereas reciprocal relationships involve a more equal power base between two persons (Hinde, 1979, 1995). Complementary exchanges are typical of parent-child relations, and present children with the opportunity to gain basic social skills needed in the formation and maintenance of their own relationships. Reciprocal exchanges, as observed in peer interactions, allow children to refine and strengthen their social abilities with individuals who are comparable in competency. The course of a relationship and the future interactions that transpire within it are dependent on relationship history and

quality, together with participants' perceptions and expectations of the relationship (Hinde, 1979; Hinde & Stevenson-Hinde, 1988).

Throughout development, each relationship serves its own role and purpose. A child's earliest relationships are formed within his or her nuclear family and provide the groundwork for establishing social competency needed for future relationships (Hinde & Stevenson-Hinde, 1988). In the course of children's transition from early childhood to adolescence, they progressively separate themselves from their parents. As a result, parent-child relationships begin to take less priority, while sibling relationships and friendships become increasingly significant during this developmental shift (Yeh & Lempers, 2004).

The majority of children grow up with a brother or a sister (Dunn, 2002; Howe, Ross, & Recchia, 2011). The nature of sibling interactions distinctively includes both complementary and reciprocal interactions (Dunn, 2002; Howe et al., 2011). An older sibling may display greater capabilities and power through teaching and caretaking, with reciprocity between siblings occurring in play and companionship. Siblings play a fundamental role in the development of social skills. In fact, a child's social understanding – awareness of others' mental states, intentions and emotions – has been associated with having sibling relationships (Dunn, 2002). Brothers and sisters also provide the first type of peer-like interaction (Howe et al., 2011) that promotes sharing and helping, which can be applied in forming friendships.

When children enter school, they begin to expand their social network to peers (Hinde & Stevenson-Hinde, 1988). Accordingly, friendships typically increase in number and complexity. Friendships are identified by shared preference and more equal

power (Hartup, 1989). Relationships with friends involve interactive voluntary exchanges that are close, affectionate, and more responsive to one another's feelings and needs than with non-friends (Berndt, 1982; Hartup, 1989). Developing friendships may encourage altruistic behavior, including fostering an appreciation for intimacy and trust in relationships (Berndt, 1982; Hartup, 1989). Children lacking positive friendships may suffer from social isolation and rejection, in addition to adjustment problems (Hartup, 1989; Stocker, 1990).

Even though each relationship is different, there is an interdependence that exists among all relationships. Sibling relationships and friendships have been found to play comparable roles in children's social development (Updegraff & Obeidallah, 1999), because both offer intimacy and companionship during preadolescence (Hinde, 1995). Given that these relationships are embedded in a network, a child's behavior in one relationship can affect another (Hinde, 1979). With a limited number of studies having been conducted to examine sibling-friend linkages (Updegraff & Obeidallah, 1999; Updegraff, McHale, & Crouter, 2002), the compensatory or additive influence sibling relationships and friendships may have on each other's processes remains unclear (East & Rook, 1992; Stocker, 1990; Updegraff & Obeidallah, 1999; Updegraff, McHale, & Crouter, 2002). A better understanding of a child's sibling relationship is obtained by its examination in the context of other relationships such as with peers (Hinde, 1979), so it is necessary to study the associations of both friendships and sibling relationships in children's development.

Associations Between Sibling Relationships and Friendships

Interactions with siblings and friends offer a critical environment for the facilitation of children's social competency (Dunn, 2002; Furman & Buhrmester, 1985b; Hartup, 1989). Sibling relationships and friendships share the features of companionship and affection (Furman & Buhrmester, 1985a, 1985b). Additionally, both relationships function as sources of emotional support and instrumental help (Furman & Buhrmester, 1985a). Despite their similarities as dyadic relationships, sibling relationships and friendships vary in specific ways. Sibling relationships are obligatory and often include greater shared environments, conflict, and rivalry for parental affection (Dunn, 2002; Furman & Buhrmester, 1985a). In contrast, friendships are preferential and involve mutual attachment, little competition, and higher expectations of trust (Berndt, 1982; Dunn, 2002). Also, because friendships are rooted in *symmetrical reciprocity* (Hartup & Stevens, 1997; Hinde, 1979), individuals may expect greater loyalty from their friends than their siblings.

Most studies have separately investigated sibling relationships and friendships in detail, but sibling-friend linkages in children and adolescents have not been given the same attention. The few researchers that have studied the connections between the two relationships have identified some important findings. Volling, Youngblade, and Belsky (1997) examined first-born children's relationships with siblings and friends in early childhood. Their outcomes indicated older siblings reported more positive feelings toward their friends than their younger siblings. Only a partial evaluation of peer interaction can be gained from these results because the study's emphasis was on observations of siblings' interaction. Buhrmester and Furman (1985b) found that children and adolescents perceived sibling relationships as asymmetrical in dominance

compared to friendships. Comparatively, Updegraff, McHale, and Crouter (2002) found adolescents perceived greater control with siblings compared to friends. None of these studies, however, address possible associations in specific interpersonal processes between the two relationships.

Yeh and Lempers (2004) documented that adolescents with harmonious sibling relationships were more likely to have sound friendships as well. Along with the possible carryover effect (Stocker, 1990) between sibling relationships and friendships, their parallel functions have also been found to have compensatory effects. As stated by East and Rook (1992), positive sibling relationships of children who are isolated by the peer group can supply support lacking in their friendships. In contrast, children in hostile sibling relationships may depend more heavily on friendships (Howe et al., 2011), because friendships can provide positive exchanges that may be absent between siblings. Nonetheless, there remains a gap in the literature about the specifics of how sibling relationships and friendships offset one another during the pivotal period of early adolescence. The importance of this developmental period will later be addressed.

Through the comparison of sibling relationships and friendships across development, more knowledge of the social world that children and adolescents navigate and manage is acquired. Special consideration should be given to comprehend how each relationship meets the need for social support, and how these relationships are similar or different in terms of how children may engage in self-disclosure. With the majority of people involved in significant and lifelong relationships with siblings and friends, considering their separate and combined effects draws attention to their influence on children's psychological well-being (Stocker, 1990) and overall development.

Sibling Relationships and Friendships as Contexts for Self-disclosure

Regardless of the change in children's social needs as they age (Hartup, 1989), emotional support is a function that is continuously expected and frequently present in close relationships. One means of support, as well as a central process in intimate relationships, is self-disclosure. Jourard's (1971a, 1971b) theory of self-disclosure posits that divulging personal information not only acquaints two persons with one another and enhances closeness in a relationship, but also functions to maintain psychological well-being and increase one's self-awareness. While the social, personality, and cognitive characteristics of the each person is likely to shape the nature of disclosure processes within a relationship, the pace and quality of disclosure between two individuals is also related to the fondness and trust cultivated within it (Jourard, 1971a, 1971b).

The activity of disclosure is bidirectional, wherein the participants' responses determine the course and depth of future self-disclosure. By imparting personal information, one invites self-disclosure and nurtures the growth of confidence in the relationship. Self-disclosure serves as a channel for the mutual communication of private thoughts, feelings, and concerns (Buhrmester & Prager, 1995; Howe, Aquan-Assee, Bukowski, Lehoux, & Rinaldi, 2001; Howe, Aquan-Assee, Bukowski, Rinaldi, & Lehoux, 2000; Jourard, 1971a, 1971b), and as a means for self-expression and social validation (Buhrmester & Prager, 1995). It also allows two persons to be aware of the variations in beliefs and attitudes, as well as their needs and expectations from each other (Jourard, 1971b).

Despite the variation in the confidentiality of the information shared, individuals are more likely to reserve their most private matters for relationships high in intimacy and

companionship. In effect, the most ideal conditions for self-disclosure exist in the strong attachments children and adolescents' possess with siblings and friends during preadolescence. Since sibling relationships and friendships are crucial sources of closeness and intimacy, both provide contexts for self-disclosure. As boys and girls devote a greater amount of time and attention toward their peers in middle childhood and early adolescence (Furman & Buhrmester, 1985b), siblings and friends become main sources and recipients of disclosure (Buhrmester & Prager, 1995).

Beginning in infancy, siblings spend a great deal of time together and form intimate bonds (Dunn, 2002; Howe et al., 2011). Consequently, a child's earliest experience with self-disclosure is most probably with a brother or sister (Howe et al., 2000). Sibling affiliations are characterized by a combination of positive and negative affect, companionship, and individual perceptions of relationship quality (Dunn, 2002; Howe et al., 2011). Self-disclosure between siblings is facilitated by mutual exchanges that encourage dependability and communication, and hierarchical interactions that may promote empathy under some circumstances.

Friendships are noted to be more symmetrical in nature than sibling relationships. They are commonly based on shared fondness, parallel values, loyalty, and sensitivity (Berndt, 1982, 2002; Dunn, 2002). As a result, children and adolescents frequently depend on their friends for support and companionship (Berndt, 1982). The ability to disclose to a friend is perceived to be a defining component of friendships from preadolescence onwards (Hartup, 1989). With the expectations of commitment and trust in friendships, children and adolescents may at times feel more comfortable confiding in friends than siblings.

A small number of studies have looked at patterns of disclosure in the sibling relationships and friendships of children and adolescents (Buhrmester & Prager, 1995). Yet these studies have been limited to comparing disclosure of friends with acquaintances (e.g., Berndt, 1986) or focusing on sibling self-disclosure (e.g., Howe et al., 2000, 2001). A close examination relating the two relationships in terms of relationship quality and self-disclosure has yet to be investigated.

Relationship Quality with Siblings and Friends

Friendship and sibling relationship quality have been found to play a part not only in relationship interactions but children and adolescents' social adjustment as well. Berndt (2002) has argued that children with high quality friendships are less depressed, anxious, and hostile. In addition, they have enhanced social skills (e.g., cooperation and empathy) that transfer to other peer relationships. Likewise, Buhrmester (1990) found that in adolescence, boys and girls in intimate friendships reported having higher levels of social competency and self-esteem. With reference to siblings, Yeh and Lempers (2004) reported that adolescents who have positive sibling relationships are more likely to have positive friendships as well. Their results also illustrated that boys and girls with positive sibling relationships had higher self-esteem. Positive sibling relationships and friendships may promote optimal development because the most negative child outcomes have been found when both relationships are low in quality. Updegraff and Obeidallah (1999) reported that adolescents with low intimacy and involvement with both friends and siblings have a tendency to present lower levels of social and emotional adjustment than adolescents with high intimacy and involvement with either a friend or a sibling.

Research has emphasized siblings' role in individual development, with a large number of studies looking at sibling relationship components and quality (Dunn, 2002). Sibling relationship quality relates to the gender constellation, relative age of the siblings, and family size (Furman & Buhrmester, 1985a). Furman and Buhrmester (1985a) have reported that both same-sex and narrowly-spaced sibling dyads shared high levels of closeness, while both opposite-sex sibling and widely-spaced sibling dyads reported less warmth and conflict. In larger families (i.e., four or more children), rivalry was greater for widely-spaced siblings and older siblings were perceived to be more nurturing than in small families (Furman & Buhrmester, 1985a). Variance also exists between the relationship experience of younger and older siblings (Buhrmester & Furman, 1985a; Furman & Buhrmester, 1990). Dunn (2002) highlighted that older siblings have a greater influence on younger siblings' behavior and adjustment than vice versa. Harmonious sibling relationships are perceived to be high in warmth and low in conflict, while negative sibling relationships are perceived to be high in conflict and low in warmth (Dunn, 2002; Furman & Buhrmester, 1985a; Howe et al., 2011).

Furman and Buhrmester (1985a) conducted a widely cited study on the defining qualities of sibling relationships. Elementary school children were individually interviewed about their relationships with a selected sibling. The participants were then asked to describe the positive and negative properties of their sibling relationships and how important their sibling was to them. Based on the participants' responses, Furman and Buhrmester found the following four characteristics of sibling relationships: (a) warmth, (b) conflict, (c) rivalry, and (d) relative power. These qualities were then used to

create the Sibling Relationship Questionnaire, a tool used to assess children's perception of sibling relationship quality, which has been widely used in the literature.

Comparable to sibling relationships, high quality friendships exhibited high levels of positive affect and low levels of negative affect (Berndt, 2002). Further, high quality friendships were more likely to remain stable and secure (Bukowski, Hoza, & Boivin, 1994). Distinct from sibling relationships, competition is rare in friendships, but conflict can occur. Conflict was negatively related to all four dimensions, but the most significant correlation was with friendship security (Bukowski et al., 1994). Friendships that are disharmonious have lower probabilities of surviving (Bukowski et al., 1994), because children feel uncomfortable with having disagreements with friends (Berndt, 1982; Dunn, 2002) due to the voluntary nature of the relationship.

Similar to the Sibling Relationship Questionnaire, the Friendship Activity Questionnaire is a tool used to measure children and adolescents' friendship quality. Bukowski, Hoza, and Boivin (1994) constructed the questionnaire and found the five following dimensions as determinants of friendship quality: (a) companionship, (b) help, (c) security, (d) closeness, and (e) conflict. Companionship (i.e., time voluntarily spent with a friend) was strongly associated with security (i.e., reliance, trust, and resiliency in the friendship) and help (i.e., instrumental aid and protection from bullying) (Bukowski et al., 1994).

Self-disclosure and links with relationship quality. Howe, Aquan-Assee, Bukowski, Rinaldi, and Lehoux (2000) conducted a preliminary study on sibling relationship and sibling self-disclosure. They found that the quality of a sibling relationship was related to the frequency and nature of self-disclosure to brothers and

sisters. Intimate and close relationships most likely offered the best context for reciprocated disclosure. Howe, Aquan-Assee, Bukowski, Lehoux, and Rinaldi's (2001) subsequent study, which also examined the link of emotional understanding with sibling relationship quality and disclosure, confirmed this outcome. The second study's findings illustrated that sibling relationship warmth was positively related to sibling self-disclosure. Affectionate and close siblings were more likely to be open and responsive toward one another. Compared to widely-spaced siblings, closely-spaced siblings reportedly have greater warmth, intimacy, and companionship (Furman & Buhrmester, 1985a). Hence, they have an increased probability for disclosure, because of their shared environments and familiarity with one another. Siblings with a large age difference reportedly experience less closeness (Furman & Buhrmester, 1985a), which may result in fewer interactions and opportunities for disclosure.

A negative sibling relationship is typically characterized by less interaction (Furman & Buhrmester, 1985a), along with increased rivalry and conflict. Rivalry is a unique attribute of sibling relationships, often defined by jealousy and hostility between siblings (Furman & Buhrmester, 1985a; Dunn, 2002). Similarly, sibling conflicts contribute to undesirable sibling exchanges (Furman & Buhrmester, 1985a), but do not threaten the continuation of the relationship unlike friendship conflict (Furman & Buhrmester, 1985a). It would seem that antagonistic sibling relationships would not foster reciprocal communication, yet Howe et al. (2000) did not find a relationship between rivalry or conflict and frequency of self-disclosure. While a negative sibling relationship may not be correlated with less sibling disclosure, it may be associated with decreased disclosure to friends because of underdeveloped disclosure skills. On the other

hand, increased friend disclosure may be a compensatory process (Stocker, 1990) for children in less desirable sibling relationships.

The effect of friendship quality on disclosure has not been examined to the same degree as sibling relationships (e.g., Howe et al., 2000, 2001). However, research has indicated that children and adolescents who reported high levels of companionship in their friendships were expected to trust their friends and frequently engage in disclosure (Berndt, 2002; Berndt & Hanna, 1995). Friends who frequently interact also have more time to dedicate to discussing various topics. Closeness (i.e., attachment and validation) was positively associated with security and companionship (Bukowski et al., 1994). For that reason, boys and girls who feel valued by their friends may be more inclined to disclose personal information to them. Further, a friendship defined by constant discord is probably a less suitable environment for self-disclosure because of the perceived lack of dependability and loyalty in a friend. Then again, warm sibling relationships can be a substitute as a source of social support for children who have negative friendships (East & Rook, 1992). Alternatively, children who are disconnected from their friends may choose to confide in their siblings.

Self-disclosure in Middle Childhood and Early Adolescence

Boys and girls deal with a critical phase of social and cognitive changes from early childhood to preadolescence. Additionally, this developmental shift can influence the social interaction of children and adolescents, such as the disclosure that emerges in sibling relationships and friendships. Evidence has revealed that as children get older, they are more likely to self-disclose, particularly to siblings and peers (Buhrmester & Furman, 1987; Buhrmester & Prager, 1995). Sibling relationship and friendship quality

can change over time, that is friends and siblings who were initially caring and supportive toward each other may not continue to be so.

Young children rarely cite self-disclosure as an aspect of friendships, but adolescents repeatedly identify friends as individuals with whom they can communicate private feelings and concerns (Berndt & Hanna, 1995). A gradual change in friendship quality occurs from middle childhood to early adolescence as friends take an increasingly central role. Furman and Buhrmester (1992) noted that during early adolescence, boys and girls reported friends as a major source of support. Studies (e.g., Berndt & Perry, 1986; Buhrmester & Furman, 1987) have revealed that as children mature, friendship intimacy ratings increase. Similarly, Updegraff et al. (2002) found adolescents reported greater intimacy with friends than siblings.

With increased intimacy and trust, it is possible for friends to become more frequent confidants in adolescence. Boys and girls may feel more comfortable communicating concerns about other peers, academics, and family problems to friends than siblings. Furman and Buhrmester (1990) found compared to adolescents, younger children rated siblings as higher in companionship, intimacy, and affection. Although sibling companionship and intimacy decrease over the course of adolescence (Updegraff et al., 2002), self-disclosure in sibling relationships seems quite consistent throughout middle childhood and preadolescence (Buhrmester & Furman, 1987). Sibling interaction is a way for children and adolescents to stay connected to their family (Yeh & Lempers, 2004). It is expected that family concerns, particularly with parents, are key topics of sibling disclosure. Relative power between siblings decreases as the relationship grows

more symmetrical (Furman & Buhrmester, 1990). In turn, siblings may be more willing to communicate and relate to each other's interests, difficulties, and experiences.

Compared to boys, girls perceive their relationships to be of greater significance (Furman & Buhrmester, 1985b). Girls have reported greater levels of support from siblings and friends as well (Buhrmester & Furman, 1987; Buhrmester & Prager, 1995). This finding may account for the gender differences in child and adolescent self-disclosure. Females typically disclose at higher rates than males (Buhrmester & Prager, 1995) and begin to confide at a younger age (Berndt & Hanna, 1995). Studies have also shown that the gender constellation of sibling and friend dyads is associated with intimacy and companionship, and thus self-disclosure (Furman & Buhrmester, 1985b; Buhrmester & Prager, 1995). Same-sex sibling relationships and friendships reportedly experience higher levels of companionship and intimacy that is sustained in adolescence (Furman & Buhrmester, 1985a, 1985b, 1987). Sisters are often the recipients of disclosure (Buhrmester & Prager, 1995), but studies have not been consistent in this finding (e.g. Howe et al., 2001). Siblings and friends of the same gender are likely to confide in one another, with girls expected to engage in more disclosure. Children and adolescents' friendships are commonly same-sex (Berndt 1982; Hartup, 1989), but cross-sex friendships increase in early adolescence (Buhrmester & Furman, 1987). Therefore, as children transition into adolescence, they may begin to extend their friendships and begin to confide with members of the opposite sex.

Overall, friends and siblings do engage in self-disclosure in middle childhood and early adolescence. Sibling relationships and friendships provide contexts for boys and girls to develop social and communication skills that will impact their social competency

in other social relationships. However, more research on associations between sibling relationships and friendships in middle childhood and early adolescence needs to be completed. Children and adolescents' perceptions of their relationships will likely influence the exchange of private information, but the defining conditions that encourage disclosure in these contexts are not entirely clear (Buhrmester & Prager, 1995; Howe et al., 2000).

The Present Study

The current study aims to extend previous literature on sibling and friend self-disclosure by examining the nature and frequency of self-disclosure in sibling relationships and friendships during middle childhood and early adolescence. Boys and girls in the 4th and 6th grade were individually interviewed about self-disclosure within their sibling relationships and friendships. Given this data, the first goal was to identify the rate and topics of disclosure within the two relationships. Second, possible gender and age differences in these associations were explored. Participants also completed the Sibling Relationship Questionnaire (Furman & Buhrmester, 1985b) to rate their sibling relationship quality, as well as the Bukowski et al.'s (1994) Friendship Activity Questionnaire to assess the quality of their friendships. The third goal was to examine the links between perceptions of relationship quality with sibling and friend disclosure. Finally, compensatory or additive patterns of disclosure were also considered.

Concerning the first goal, frequency of reported self-disclosure to siblings versus friends, and topics shared in the two relationships, were explored descriptively. In reference to the second goal, it was hypothesized that same-sex siblings and friends would, participate more frequently in disclosure than opposite-sex dyads. Girls were also

hypothesized to disclose more than boys. Moreover, because children begin to rely more heavily on their friends as they age (Yeh & Lempers, 2004; Furman & Buhrmester, 1992), they will be expected to disclose at higher levels with friends in early adolescence (i.e., Grade 6) than middle childhood (i.e., Grade 4). With regard to the third goal, possible associations between disclosure and relationship quality were explored based on previous research (e.g., Buhrmester & Prager, 1995; Howe et al., 2000). Therefore, it was hypothesized that there will be a difference in sibling relationship quality between boys and girls who disclose intimate information to their brother or sister, wherein siblings who disclose will report greater warmth and less conflict. Compared to those who do not disclose to their best friend, children and young adolescents who do disclose will differ in friendship quality, reporting higher levels of companionship and closeness, as well as less conflict. Regarding the fourth goal, an association may be present for children who rate their sibling relationship or friendship as negative. Finally, it is hypothesized that positive sibling relationships may result in other quality and meaningful peer interactions, such as increased self-disclosure.

Method

Participants

A total of 93 target children in the 4th and 6th grade participated. The sample included 24 boys and 22 girls in the 4th grade with a mean age of 9.48 years ($SD = .59$), and 19 boys and 28 girls in the 6th grade with a mean age of 11.15 years ($SD = .55$). Each participant reported on his or her best friend (i.e., recipient friend) and sibling that they felt closed to (i.e., recipient sibling). The mean age of recipient friends was 9.41 years ($SD = .83$) for 4th graders, and 11.53 years ($SD = .58$) for 6th graders. With no cross-sex

friendships, the gender composition of the recipient friends was identical to the sample. Of the 4th grade students, 24 identified younger siblings as their recipient sibling (M age = 6.37, SD = 1.86; 10 male-male, 3 male-female, 6 female-male, 5 female-female dyads), while the remaining 22 chose an older sibling (M age = 13.23, SD = 2.78; 7 male-male, 4 male-female, 2 female-male, 9 female-female dyads). For participants in the 6th grade, recipient siblings consisted of 23 younger siblings (M age = 8.00 years, SD = 1.98; 9 male-male, 1 male-female, 2 female-male, 11 female-female dyads), 22 older siblings (M age = 13.86, SD = 1.46; 6 male-male, 4 male-female, 9 female-male, 4 female-female dyads), and 2 twins (M age = 11.00, SD = .00; 1 male-male, 1 female-female dyads).

The children were recruited through local English schools in a bilingual (French-English) community, in the largely French environment of the province of Quebec, and were from lower- and middle-class Caucasian families. Parental permission was obtained via a consent form distributed to the participants. Ethical approval has been previously granted to this project to Nina Howe.

Procedure

The data were collected in the school setting. As a group, the target children filled out the Sibling Relationship Questionnaire (Furman & Buhrmester, 1985b), which measured perceptions of the quality of interactions with the chosen recipient sibling. Afterward, the target children completed the Friendship Activity Questionnaire (Bukowski et al., 1994), which measured the perceptions of the quality of interactions with the identified best friend. Each child was then privately interviewed in a quiet area regarding the frequency, topics (e.g., family, academic, peer relations), and reciprocity of

sibling and friend self-disclosure. These interviews were audiotaped and transcribed. A coding scheme was developed for these interviews.

Measures

Sibling Relationship Questionnaire (SRQ). The target children completed the 48-item SRQ (Furman & Buhrmester, 1985b) to evaluate the relationship quality with their closet sibling across four features (see Appendix A): (a) warmth/closeness (e.g. “How much do you and your sibling tell each other things you don’t want other people to know?”), (b) relative power/status (e.g., “How much does your sibling tell you what to do?”), (c) conflict (e.g., “How much do you and your sister argue with each other?”), and (d) rivalry (e.g., “How much do you and your sibling compete with each other?”). For each question, children used a 5-point Likert scale (1 = hardly at all to 5 = extremely much). As presented in Table 1, internal consistency for all scales had Cronbach’s *alphas* of .72 or higher. Tables 1 – 3 are found at the end of the Method section.

Friendship Activity Questionnaire (FAQ). The target children completed the FAQ (Bukowski et al., 1994) to assess the quality of their relationship with their best friend on five aspects based on 45 items (see Appendix B): (a) companionship (e.g., “My friend and I spend a lot of our free time together.”), (b) closeness (e.g., “I feel happy when I am with my friend.”), (c) help (e.g., “My friend and I help each other.”), (d) security (e.g., “I can trust and rely upon my friend.”), and (e) conflict (e.g., “I can get into fights with my friend.”). To rate the perceptions of their friendship quality, children employed a 5-point Likert scale ranging from 1 (i.e., not true) to 5 (i.e., really true). Table 2 illustrates that the four subscales of help, closeness, conflict, and security had Cronbach’s *alpha* above .71. The companionship subscale had an observed Cronbach’s

alpha of .74 for the 6th grade participants, but a lower Cronbach's *alpha* of .63 for the 4th grade participants and .68 overall. Finally, internal consistency was conducted for the subscale of balance. Balance is another construct included in the FAQ, but is often not employed because of low internal consistency among its items. Consistent with Bukowski et al.'s (1994) findings, the balance subscale had low Cronbach's *alpha* for each grade and overall. Given that the items on the balance subscale do not detract from the total score internal consistency, they were only included to determine the overall friendship quality, but were not used as a separate subscale.

Interview. The target children were individually and privately interviewed for approximately 15-20 minutes using a semistructured interview (see Appendix C) adapted from the interviews used in Howe et al. (2000, 2001). The interview was adapted to address questions regarding the child's friendship. The participants were asked 13 open-ended questions concerning the nature of disclosure to their closest sibling and best friend. First, each target child was asked to identify the sibling to whom he or she felt closest, and to name his or her best friend. Second, every participant was asked if he or she disclosed to the identified sibling or best friend (e.g., "Do you share special thoughts with your sibling/best friend?"), the rate of disclosure (e.g., "How often do you share secrets?"), and the topics shared (e.g., "What kind of things do you tell your sibling/best friend?"). They were also asked to express their feelings regarding disclosure to each recipient, report on reciprocated or mutual disclosure with a sibling or best friend, and describe the interactions within their friendship and sibling relationship. All the audiotaped interviews were transcribed.

After careful review of the interview transcripts, a coding scheme was developed using a *grounded theory* approach through categorization of recurrent themes in participants' responses (see Appendix D for interview coding scheme). Operational definitions were developed for each identified topic of disclosure and frequency of self-disclosure. There were five main disclosure topics identified: (a) family (e.g., parents) , (b) peer (e.g., gossip), (c) academic (e.g., teachers and homework), (d) interest in the opposite sex (e.g., crushes), and (e) shared interests (e.g., hobbies). Each topic was coded dichotomously as being present or absent. When a participant's answer did not fit into any of these categories, it was coded as *other*. It is important to note that these topics were not mutually exclusive. Disclosed family (e.g., conflict with a family member), peer (e.g., bullies), and academic (e.g., failing a test) problems were coded using the same dichotomous method. The frequency of disclosure to each recipient was coded using a Likert scale ranging from 1 to 4: 1= not often, 2 = sometimes, 3 = often, and 4 = very often. The coding scheme was independently used by two raters to establish reliability.

Reliability

Interrater reliability was conducted on a random subsample of 20% (19/93) of the child interviews by two individuals, with one coder unfamiliar with the study's goals. Reliability for questions used in the present study is reported in Table 3. All had interrater reliability of $kappa = 1.0$, excluding peer issues disclosed to best friends ($kappa = .83$) and frequency of disclosure to best friends ($kappa = .93$). The two raters resolved coding discrepancies through discussion to obtain agreement.

Table 1

Internal Consistency Alphas for the Sibling Relationship Questionnaire

SRQ Variables	Grade 4 (<i>n</i> = 46)	Grade 6 (<i>n</i> = 47)	Both Grades (<i>n</i> = 93)
Warmth	.93	.92	.93
Conflict	.89	.93	.91
Rivalry	.72	.80	.77
Power	.74	.74	.75
Total	.93	.91	.92

Table 2

Internal Consistency Alphas for the Friendship Activity Questionnaire

FAQ Variables	Grade 4 (<i>n</i> = 46)	Grade 6 (<i>n</i> = 47)	Both Grades (<i>n</i> = 93)
Companionship	.63	.74	.68
Help	.89	.88	.89
Closeness	.85	.82	.83
Conflict	.71	.77	.74
Security	.74	.78	.76
Balance	.65	.49	.58
Total	.92	.91	.91

Table 3

Interrater Reliability Statistics for Interviews

	Percent Agreement	<i>kappa</i>
Topics of Disclosure with Sibling		
Family	100	1.00
Peer	100	1.00
Academic	100	1.00
Interest in Opposite Sex	100	1.00
Shared Interests	100	1.00
Topics of Disclosure with Best friend		
Family	100	1.00
Peer	94.74	.83
Academic	100	1.00
Interest in Opposite Sex	100	1.00
Shared Interests	100	1.00
Problems Disclosed to Sibling		
Family	100	1.00
Peer	100	1.00
Academic	100	1.00
Problems Disclosed to Best Friend		
Family	100	1.00
Peer	100	1.00
Academic	100	1.00
Disclosure Frequency to Sibling	100	1.00
Disclosure Frequency to Best Friend	94.74	.93

Results

First, descriptive analyses were performed on participants' interviews to identify the specific types of information disclosed to siblings and friends, and how often they engaged in sibling and friend disclosure. This was followed by examining gender and age differences using the same data. The final phase was to consider the associations of self-reported sibling relationship and friendship quality, and their possible interactions. Tables 4 – 9 are found at the end of the Results section.

Descriptive Analyses for Disclosure Topics and Frequency of Disclosure in Friendships and Sibling Relationships

The first set of analyses addressed the present study's first goal to conduct descriptive analyses on participants' disclosed topics and problems to their siblings versus their best friends, as well as the frequency of disclosure to the two recipients. To address this goal, chi-square and McNemar's tests were performed.

Disclosure recipients. Descriptive results for disclosure topics and frequency in the relationships between friends and siblings are presented in Table 4. The majority of the participants (63%) reported disclosing to both their sibling and best friend. A considerable number disclosed only to their best friend (30%), with a very few small proportion of the sample disclosing to only their sibling (3%) or to neither their sibling nor best friend (3%). A chi-squared goodness of fit test revealed a statistically significant difference among these groups compared to the expected values, $\chi^2(3) = 91.20, p < .01$. This finding revealed participants were more likely to disclose to only to their best friend or to both their closest sibling and friend, and less likely to disclose only to their sibling or to neither their sibling nor best friend. These patterns were also evident in both grades,

in which chi-squared goodness of fit tests were significant for 4th grade participants $\chi^2(3) = 45.65, p < .01$, and 6th grade participants, $\chi^2(2) = 23.28, p < .01$.

Topics disclosed to siblings versus best friends. Overall, approximately a third of the sample reported discussing academic issues with their best friend (31%) and to their sibling (32%). Fourth graders were equally likely to report talking about school to their best friend (26%) or their sibling (26%). Sixth graders showed comparable patterns of disclosure about academics to a brother or sister (38%) versus to a best friend (36%). McNemar's tests revealed no significant differences between children disclosing about school to a friend compared to a brother or sister. However, overall respondents were significantly more likely to discuss shared interests with their best friends (20%) rather than their siblings (12%), McNemar's test, $p < .01$. Table 4 illustrates the same patterns in both grades, but only 6th graders significantly disclosed more about shared interests to a friend than a sibling, McNemar's test, $p < .01$.

Twenty-three percent of boys and girls disclosed peer issues to their best friends, but no more than 9% disclosed peer issues to their siblings, wherein the proportions are significantly different as assessed by the McNemar's test, $p < .05$. Both older students reported disclosing more about peers to a friend (28%) than to a sibling (11%), as well as younger students (17% versus 7%), yet McNemar's tests were not significant for either of the grades. Twenty percent of participants disclosed about their interest in the opposite sex to their best friend, compared to 5% with their siblings. This distribution was significantly asymmetrical as evaluated by a McNemar's test, $p < .01$. Children in the 4th grade conversed more about interest in the opposite sex to their peer rather than their sibling (11% versus 2%), but this was not found to be significantly different. However, in

the 6th grade sample, participants were significantly more likely to confide about their interest in the opposite sex to their best friend (30%) than to their sibling (9%), McNemar's test, $p < .01$. No significant differences were detected for revealing family issues toward a best friend (13% of 4th graders, 2% of 6th graders, and 8% overall) and sibling (7% of 4th graders, 9% of 6th graders, and 8% overall), as outcomes were generally low.

Problems disclosed to siblings versus best friends. In contrast to siblings, best friends were significantly more likely to be recipients of problems regarding peers (80% versus 51%) and academics (80% versus 52%), as assessed by McNemar's test, $p < .01$. Boys and girls in the 4th and 6th grade showed the same patterns for these two problem topics (see Table 4), and were also found to be both significantly different, McNemar's test, $p < .01$. The difference of disclosing family problems between friends (48% of total sample, 41% of 4th graders, and 55% of 6th graders) and siblings (34% of total sample, 26% of 4th graders, and 43% of 6th graders) was not significant overall or within grades.

Frequency of disclosure to siblings versus best friends. Disclosure rates (i.e., frequency of disclosure) range from *not often* to *very often*. With reference to disclosure to a best friend in the total sample, 28% reported disclosing *not often*, 34% responded *sometimes*, 11% answered *often*, and remaining 20% engage in it *very often*. A chi-square goodness of fit test was significantly different among these groups compared to the expected values, $\chi^2(3) = 12.36$, $p < .01$. This indicates that respondents were more likely to rate their disclosure to their friends *very often*, *sometimes*, and *not often* compared to *often*. As presented in Table 4, the same pattern existed in both grades for frequency of

friend disclosure, but only the 4th grade sample had significant differences among the groups, $\chi^2(3) = 9.62, p < .05$.

Nineteen percent of participants described disclosing to as sibling *not often* and *sometimes*, respectively. Another 12% of respondents disclosed to their sibling *often*, followed by 16% disclosing *very often*. Concerning 6th graders, they were equally likely to disclose *often* (19%) and *very often* (19%) to their brother or sister, which is inconsistent with the hypothesis that participants would disclose less to their siblings as they get older. Fifteen percent of the sample rated their sibling disclosing as *not often*, while fewer disclosed *sometimes* (13%). Boys and girls in the 4th grade had similar rates of disclosing to their sibling for the frequency of *not often* (24%) and *sometimes* (26%). Thirteen percent of the 4th graders were involved in sibling disclosure *very often*, and only 4% reported engaging in sibling disclosure *often*. A chi-square goodness of fit test revealed a statistically significant difference among sibling disclosure frequency rates only for the participants in the 4th grade, $\chi^2(3) = 8.36, p < .05$. This implies that younger boys and girls have greater variations in their rate of sibling disclosure, in which they reported confiding in their brother or sister as *not often* and *sometimes* more rather than *often* and *very often*.

In summary, a majority of participants disclosed to both their siblings and their best friends. Respondents were more likely to discuss common interests, peer issues and problems, and interest in the opposite sex with their friends rather than their siblings. Boys and girls also confided their academic difficulties more often to their friends rather than their siblings. While there was not much variation in the frequency of friend disclosure, there were marked differences in the rate of participants' sibling disclosure.

Self-disclosure by Gender and Age

The next series of analyses pertain to the hypotheses of gender and age differences. Chi-square tests and one-way analyses of variance (ANOVA) were conducted to compare disclosure themes and rates by gender, grade, and their interactions.

Gender differences. The first set of analyses refers to the nature of disclosure by gender. A significant difference was observed in disclosure of shared interests, wherein boys were more likely to share details about common hobbies and activities with their best friend, $\chi^2(1) = 13.78, p < .01$, and sibling, $\chi^2(1) = 5.98, p < .05$, than girls. However, girls were significantly more likely to disclose problems about their family, $\chi^2(1) = 6.44, p < .05$, and peers, $\chi^2(1) = 3.87, p < .05$, but only to their sibling. It was hypothesized that girls would disclose more often than boys, however, no significant gender differences were found in disclosure frequency to both best friends and siblings.

Age differences. The next set of analyses involved cross-grade differences in disclosure. Children in the 6th grade were found to disclose at significantly higher rates to their best friend about their family, $\chi^2(1) = 4.27, p < .05$, and interest in the opposite sex, $\chi^2(1) = 4.70, p < .05$, than those in the 4th grade. In addition, older students were also more likely to divulge problems about peers to their best friends $\chi^2(1) = 5.60, p < .05$, than younger students. No significant age differences were found for disclosure frequency (i.e., how often) to both best friends and siblings, which does not support the hypothesis that young adolescents (i.e., Grade 6) would disclose more frequently to their best friends.

Gender differences within grades. When considering gender differences within grades in analyses of disclosure topics and frequency, similar outcomes were obtained. Compared to girls, 4th grade boys significantly disclosed more about shared interests to their best friends, $\chi^2(1) = 5.46, p < .05$, while 6th grade boys were more likely to disclose about shared interests to both their best friends, $\chi^2(1) = 8.35, p < .01$, and their siblings, $\chi^2(1) = 4.03, p < .05$. Females in the 4th grade revealed more peer problems, $\chi^2(1) = 5.62, p < .05$, to their best friends than boys. In the 6th grade sample, girls were more likely to talk about family problems to both their best friends, $\chi^2(1) = 4.41, p < .05$, and their siblings, $\chi^2(1) = 4.80, p < 0.05$, than boys. A one-way ANOVA showed that 4th grade girls ($M = 2.71, SD = 1.23$) significantly disclosed more often to their best friends, $F(1, 40) = 7.90, p < 0.01$, than 4th grade boys ($M = 1.81, SD = .81$). This finding corroborates that notion that girls may disclose more than boys, particularly to their best friend. No significant differences between males and females in the 6th grade were observed for disclosure rates.

Same- versus cross-gender sibling dyad differences. Analyses comparing disclosure between same-gender and cross-gender friendships could not be performed because of the absence of cross-gender friendships within the sample. Yet significant differences were found between same-gender and cross-gender sibling relationships. Consistent with the hypothesis that same-sex siblings would disclose more than opposite-sex siblings, results indicated that both brother-brother and sister-sister dyads were more likely to disclose to one another, $\chi^2(2) = 7.15, p < .05$, than brother-sister dyads. However, when comparing only same-sex dyads, there was no significant difference between sister-sister and brother-brother dyads. Sister-sister dyads and opposite-sex

siblings were found to significantly disclose more family problems, $\chi^2(2) = 8.49, p < .05$, than brother-brother dyads. This may support the hypothesis that dyads with one female have a greater likelihood for engaging in disclosure. No other significant gender differences were observed for disclosure topics, disclosed problems, or frequency in sibling relationships.

Descriptives and Intracorrelations of the Sibling Relationship Questionnaire (SRQ)

Descriptive statistics were computed for the SRQ by grade and overall, as shown in Table 5. Analyses on relationships among the SRQ components were also carried out. The SRQ total score was highly positively correlated with all four subscales (see Table 6). Siblings who reported high warmth were also more likely to report greater levels of power and conflict. The rivalry and conflict items were also significantly positively correlated.

Descriptives and Intracorrelations of the Friendship Activity Questionnaire (FAQ)

FAQ descriptive analyses were executed, and results for means and standard deviations are illustrated in Table 7. As with the SRQ, analyses of associations among the FAQ variables were carried out (see Table 8). The subscales of companionship, help, security, and closeness were all highly positively correlated with each other. In addition, friendships rated higher in these four subscales were more likely to have high overall friendship quality. The conflict component did not correlate with any of the subscales or the total score, which may indicate that it is an independent construct.

Associations Between the FAQ and the SRQ Subscales

As an exploratory analysis, correlations between the subscales and overall scores for the FAQ and SRQ were determined. These results are presented in Table 9.

Significant positive correlations were found between the FAQ construct of closeness and the SRQ's warmth and power components. The FAQ total score was also positively related to SRQ's power subscale. Lastly, significant negative correlations were found between the FAQ's help subscale and the SRQ's total score and the rivalry and conflict subscales.

Links Between Self-disclosure and Perceptions of Relationship Quality with Siblings and Friends

The purpose of these analyses was to address the set of hypotheses regarding differences in sibling relationship and friendship quality between participants who reported disclosing and those who did not disclose to their best friends and their siblings. A multivariate analysis of variance (MANOVA) was conducted to test the significance of group differences in relationship quality because of several dependent variables. In this case, the MANOVA controls the type I error rate while allowing the analysis of multiple dependent variables simultaneously. ANOVA were employed to determine group differences in overall relationship quality. Finally, Pearson correlation analyses were conducted to find any relationships between relationship quality and disclosure frequency in sibling relationships and friendships.

Self-disclosure and sibling relationship quality. The first set of analyses employed four dependent variables, specifically measures of sibling relationship quality derived from the SRQ subscale. Hence, each subscale score was treated as a separate continuous dependent variable. The dichotomous independent variable was the incidence of disclosure between the participant and his or her sibling. Consistent with the hypothesis that sibling relationship quality variables would differ between groups for

who engaged in sibling disclosure, a main effect was found for the presence of sibling disclosure and sibling relationship quality factors, Hotelling's $T^2 = .18$, $F(4, 88) = 3.85$, $p < .01$. Follow-up univariate ANOVAs were conducted to determine where the specific differences occurred between the variables of sibling relationship quality and the presence of disclosure to a sibling. Among the ANOVAs examining dependent variables separately, significant differences were found on sibling disclosure for warmth, rivalry, and conflict. Participants who disclosed to their sibling ($M = 3.47$, $SD = .71$) scored significantly higher than those who did not ($M = 2.93$, $SD = .73$) on warmth, $F(1, 91) = 11.95$, $p < .01$. This is compatible with the hypothesis that siblings who disclose are more likely to report higher levels of warmth. For rivalry, $F(1, 91) = 4.37$, $p < .05$, those who engaged in sibling disclosure ($M = 2.88$, $SD = 2.63$) scored significantly higher than those who did not disclose ($M = 2.63$, $SD = .57$). Likewise, individuals who disclosed to a brother or sister ($M = 3.07$, $SD = .96$) compared to those who did not ($M = 2.58$, $SD = 1.10$) reported scoring significantly higher on conflict, $F(1, 91) = 4.84$, $p < .05$. This result is contrary to the hypothesis that siblings who confide in one another would engage in less conflict.

Subsequently, separate MANOVAs were conducted on the 4th grade and 6th grade samples. While no main effect was found for the younger participants, there was a main effect for the four variables of sibling relationship quality for older boys and girls, Hotelling's $T^2 = .33$, $F(4, 42) = 3.46$, $p < .05$. A *post hoc* univariate ANOVA, $F(4, 42) = 10.53$, $p < .01$, denoted that 6th graders who engaged in sibling disclosure ($M = 3.59$, $SD = .60$) reported significantly higher levels of warmth in their sibling relationship than those who did not disclose to a sibling ($M = 2.94$, $SD = .74$).

An ANOVA was employed to ascertain if there was a difference in total sibling relationship quality comparing the group that disclosed to a sibling and the group that did not. A significant difference was found between the two groups, $F(1, 91) = 12.61, p < .01$, wherein boys and girls who disclosed to their brother or sister had an overall sibling relationship quality mean score of 3.26 ($SD = .48$) compared to the mean score of 2.86 ($SD = .56$) for those who did not disclose to a sibling. When analyses were conducted by age groups, only the older sample had significant differences in overall sibling relationship quality, $F(1, 91) = 12.66, p < .01$, wherein respondents who confided to their sibling ($M = 3.31, SD = .38$) reported a more positive sibling relationship quality than those who did not ($M = 2.83, SD = .54$).

Self-disclosure and friendship quality. By means of the same procedure as outlined above, a MANOVA was carried out for the separate variables of friendship quality to determine whether a main effect existed for friend disclosure. The test did not reveal a main effect for distinct factors of friendship quality and friend disclosure. However, when analyses were carried out within grades, the 6th grade sample had a main effect for the five subscales of friendship quality, Hotelling's $T^2 = .44, F(5, 41) = 3.58, p < .01$. An ANOVA on each dependent variable was conducted as a follow-up test to the MANOVA, and a significant difference between groups was found only for conflict, $F(1, 45) = 4.25, p < .05$. The results revealed significantly lower levels of conflict for 6th graders who disclosed to their best friend ($M = 2.40, SD = .84$) compared to those who did not disclose to their best friend ($M = 3.70, SD = 1.84$). Although lower conflict mean scores were found exclusively for 6th grade participants who disclosed to their best friends, this finding is consistent with the hypotheses that friends who disclose would be

less likely to report conflict. An ANOVA was employed to determine whether differences existed for total friendship quality between participants who disclosed to their best friend compared to those who did not. There were no significant differences found between the two groups overall or within grades.

Associations of disclosure frequency and sibling relationship and friendship quality. Pearson correlation analyses were performed to examine associations between disclosure frequency and relationship quality with friends and siblings. Significant positive correlations were found between disclosure frequency and friendship quality. Participants who reported higher levels of companionship in their friendships were more likely to disclose to their best friend, $r = .25, p < .05$. Similarly, a significant positive correlation was also found for the younger sample, $r = .36, p < .05$. This outcome is consistent with the hypothesis that as children reported higher perceived companionship with their friends that the rate of disclosure would also increase. Significant positive relationships were also discovered for the construct of help overall, $r = .27, p < .05$. Although not found in the 6th grade sample, the 4th grade sample showed a significant positive association between help and friend disclosure rate, $r = .31, p < .05$. Further, correlational analyses for children in the 4th grade indicated a significant positive association for security $r = .48, p < .01$, and closeness, $r = .43, p < .01$, with disclosure frequency. The positive relationship of closeness and the frequency rate of peer disclosure corroborated the hypotheses that the more friends confided in one another, the closer they would feel towards one another. Participants also reported that with higher overall friendship quality, peer self-disclosure increased, $r = .44, p < .01$. Finally, no

significant interactions were found between disclosure frequency to a brother or sister and SRQ subscale scores or overall score.

Associations of disclosure recipients and sibling relationship and friendship quality. The next set of analyses examined possible associations of recipients of disclosure and relationship quality with siblings and friends. A MANOVA was conducted to determine if there were differences between groups on two variables: recipient of disclosure (i.e., best friend only, sibling only, both, or neither) with respect to the four dependent measures of sibling relationship quality. The test revealed a main effect for sibling relationship quality and the recipient of the disclosure, Wilks' $\lambda = .77$, $F(12, 227.83) = 1.93, p < .05$. A follow-up ANOVA was significant for only warmth, $F(3, 89) = 4.10, p < .01$. *Post hoc* tests using Bonferroni correction for pairwise comparisons among the groups, indicated that the group that disclosed to both siblings and best friends ($M = 3.46, SD = .09$) reported statistically significantly higher warmth in their sibling relationship than the group that disclosed only to their best friend ($M = 2.95, SD = .14$). Contingent on contextual factors, this finding suggests interactions between sibling relationships and friendships.

The same procedure was completed to determine differences in disclosure recipients on the five subscales of friendship quality using a MANOVA. The only main effect was found for the 6th graders, Wilks' $\lambda = .63, F(10, 80) = 2.05, p < .05$. *Post hoc* ANOVAs and tests using the Bonferroni correction for pairwise comparisons did not reveal any significant differences among the variables or groups of disclosure recipients. The ANOVA carried out to uncover any differences in recipient groups and overall friendship quality was not significant for the entire sample or either grade.

In the total sample, a significant positive correlation was found for the frequency rates of sibling and friend disclosure, $r = .46, p < .01$. Therefore, the more disclosure a participant engaged in within one relationship, the greater disclosure also occurred in the other relationship. While this correlation was not significant for the older sample, it was significant for the younger participants, $r = .69, p < .01$. This finding is possible evidence for a linkage between sibling relationships and friendships,, wherein the presence of an interaction in one relationship is developed in another.

Table 4

Descriptive Statistics for Self-Disclosure Topics and Frequency

	Grade 4 (<i>n</i> = 46)		Grade 6 (<i>n</i> = 47)		Both Grades (<i>N</i> = 93)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
General Disclosure						
To Sibling Only	1	2	2	4	3	3
To Best Friend Only	12	26	16	34	28	30
Both	30	65	29	62	59	63
Neither	3	7	0	0	3	3
Topics of Disclosure with Sibling						
Family	3	7	4	9	7	8
Peer	3	7	5	11	8	9
Academic	12	26	18	38	30	32
Interest in Opposite Sex	1	2	4	9	5	5
Shared Interests	8	17	3	6	11	12
Topics Disclosure with Best Friend						
Family	6	13	1	2	7	8
Peer	8	17	13	28	21	23
Academic	12	26	17	36	29	31
Interest in Opposite Sex	5	11	14	30	19	20
Shared Interests	13	28	12	26	25	27
Problems Disclosed to Sibling						
Family	12	26	20	43	32	34
Peer	19	41	28	60	47	51
Academic	21	46	27	57	48	52
Problems Disclosed to Best Friend						
Family	19	41	26	55	45	48
Peer	32	70	42	89	74	80
Academic	33	72	41	87	74	80

Table 4 (continued)

	Grade 4 (<i>n</i> = 46)		Grade 6 (<i>n</i> = 47)		Both Grades (<i>N</i> = 93)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Disclosure Frequency to Sibling						
Not Often	11	24	7	15	18	19
Sometimes	12	26	6	13	18	19
Often	2	4	9	19	11	12
Very Often	6	13	9	19	15	16
Disclosure Frequency to Best Friend						
Not Often	12	26	14	30	26	28
Sometimes	17	37	15	32	32	34
Often	3	7	7	15	10	11
Very Often	10	22	9	19	19	20

Table 5

Descriptive Statistics for the Sibling Relationship Questionnaire

SRQ Variables	Grade 4 (<i>n</i> = 46)		Grade 6 (<i>n</i> = 47)		Both Grades (<i>N</i> = 93)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Warmth	3.21	.80	3.37	.71	3.29	.76
Power	3.05	.65	3.31	.62	3.18	.64
Rivalry	2.87	.51	2.73	.51	2.79	.54
Conflict	3.13	.99	2.68	1.02	2.91	1.03
Total	3.10	.58	3.15	.49	3.12	.54

Table 6

Intracorrelations of the Sibling Relationship Quality Variables

	Warmth	Power	Rivalry	Conflict	Total
Warmth	-	.66**	.19	.30**	.94**
Power		-	-.10	-.10	.66**
Rivalry			-	.64**	.44**
Conflict				-	.53**
Total					-

Note. ** $p < .01$.

Table 7

Descriptive Statistics for the Friendship Activity Questionnaire

FAQ Variables	Grade 4 (<i>n</i> = 46)		Grade 6 (<i>n</i> = 47)		Both Grades (<i>N</i> = 93)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Companionship	3.90	.77	3.88	.84	3.89	.81
Help	3.94	.76	4.04	.66	3.99	.71
Closeness	4.11	.75	4.16	.64	4.14	.69
Security	4.20	.58	4.21	.66	4.20	.62
Conflict	2.50	.98	2.45	.90	2.48	.94
Total	3.80	.55	3.80	.49	3.80	.52

Table 8

Intracorrelations of the Friendship Activity Questionnaire Variables

	Companionship	Help	Closeness	Security	Conflict	Total
Companionship	-	.61**	.49**	.57**	.02	.75**
Help		-	.69**	.75**	-.08	.87**
Closeness			-	.73**	-.15	.79**
Security				-	-.14	.83**
Conflict					-	.17
Total						-

Note. * $p < .05$. ** $p < .01$.

Table 9

*Pearson Correlations of the Sibling Relationship Quality and the Friendship Activity**Questionnaire Measures*

SAQ Variables	FAQ Variables					
	Companionship	Help	Closeness	Security	Conflict	Total
Warmth	.08	.13	.26*	.15	.10	.17
Power	.04	.18	.25*	.18	.19	.24*
Rivalry	-.16	-.26*	-.18	-.17	-.14	-.30**
Conflict	-.12	-.24*	-.13	-.12	-.12	-.23*
Total	.00	.03	.17	.09	.06	.06

Note. * $p < .05$. ** $p < .01$

Discussion

The main purpose of this study was to investigate the nature of children and young adolescent's self-disclosure with their siblings and friends. The results and implications of the present study are discussed in detail in this section. Exploratory analyses of disclosure recipients, topics, and frequency are first presented across grades and overall, followed by gender and age differences in self-disclosure. Associations concerning self-disclosure and relationship quality with siblings and friends are addressed next. Findings are discussed in the context of past literature. Finally, the study's limitations, future directions, and implications are presented.

Children's Disclosure to their Sibling and Friends

The study confirms that by and large, most boys and girls in middle childhood and early adolescence engage in self-disclosure with both siblings and friends. This is corroborated by the finding that very few participants reported to prefer disclosing to only their sibling or neither a best friend or sibling. However, if they have only one recipient of disclosure, they are more likely to disclose to their best friend rather than their brother or sister. This may be due to disclosure being a defining characteristic of friendships, which is often more subtle in sibling relationships. High expectations of disclosing to a best friend (Hartup & Stevens, 1997) may also account for this outcome. Although siblings have been found to disclose to one another (Howe et al., 1995; Howe et al., 2000; Howe et al., 2001), birth order, age differences, and dissimilar personalities may decrease this interaction. Siblings also vary widely in the quality of their relationship, while most friendships are positive or otherwise they would fall apart. Parents are still primary disclosure recipients for these boys and girls in these age groups

(Buhrmester & Prager, 1995), and many children may prefer to confide to their parents rather than their sibling or best friend. Future research should examine the issue. It is important to point out children and adolescents may also share private thoughts and feelings with other family members (i.e., cousins, grandparents, etc.) and educators, but are not assessed in this study.

The findings suggest that friendships and sibling relationships fulfill different functions as disclosure recipients. For example, while individuals were equally likely to disclose academic issues to both their siblings and friends, shared interests were reported to be discussed more often between friends than siblings. This is consistent with theory and previous research that friends in middle childhood and early adolescence form connections based on “concrete reciprocities” (Hartup & Stevens, 1997, p. 356), such as common activities and hobbies. Individuals also seek out others who are alike to them in various ways (Hinde, 1979). Results also imply that shared interests may be more significant for older than younger children, because friends are their main companions. Consequently, peers in early adolescence may be spending more time together than would younger children.

Friends are particularly important in providing developmental resources and meeting outcomes (Hartup & Stevens, 1997), particularly for peer social interactions and exchanges. Not surprisingly, peer concerns were confided to best friends in preference to siblings. Due to the importance of peer relations in childhood and adolescence (Bukowski et al, 1994; Hartup, 1989), boys and girls may find best friends to be more perceptive, sympathetic, and relate more easily to their issues (Buhrmester & Prager, 1995). Romantic interests are divulged at higher rates to best friends rather than to siblings. This

may be due to the belief that peers are acquainted with the persons of interest, they can also relate to the emotions toward the opposite sex, and are more trustworthy with this delicate information compared to siblings. Howe et al. (2001) reported when children did not disclose to siblings, one reason was lack of trust. Boys and girls may also hesitate to reveal to siblings to whom they are attracted or interested in, because they do not want to be teased, criticized, or have the information be communicated to their parents.

Although respondents did not differ in who they talked to about incidents and experiences in school, they preferred to share academic problems and difficulties with their peers. This may be because peers are in the same class, have the same teachers, and learn the same concepts. Aside from providing emotional aid and support, instrumental help is another principal attribute of friendships (Berndt, 1982; Berndt & Perry, 1986; Bukowski et al., 1994). Thus, if one's best friend is more knowledgeable in a specific subject, the focal child may choose to seek help from them first. Additionally, when friends are in the same school environment, academic assistance can be more readily provided by them than by siblings, especially if siblings are younger. Friends might also be expected to keep each other's academic troubles private.

Similar to general peer issues, peer problems were also disclosed at higher rates to best friends rather than to siblings. Best friends are more likely to be familiar with each others' peer groups, social status, other friends beyond the friendship dyad, and enemies, therefore friends may be a better source of advice and protection from peer victimization than siblings (Bukowski et al., 1994). Unexpectedly, family incidents and crises do not appear to be disclosed unequally between siblings or friends in both age groups. This may be due to less willingness or interest in disclosure of this subject matter. Also, boys

and girls may reserve sharing family issues with their parents (Buhrmester & Prager, 1995).

Disclosure frequency to a sibling and a best friend differed. The rate of sibling disclosure did not fluctuate to the extent of friend disclosure. Sibling disclosure appeared to be even across the 4-point Likert scale of disclosure rates. Consistent companionship and stability of time spend with siblings in the home setting could be explanations for this result. Overall, children in both developmental stages were likely to report disclosing to their friends on occasion (i.e., *not often* and *sometimes*) rather than regularly (i.e., *often* and *very often*). Friends may not be associating with each other frequently enough to foster levels of trust and intimacy to allow for higher rates of confiding. Another possible reason is that friends choose to divide their time engaging in other activities aside from disclosure. It is important to note that there were differences between the 4th graders and the 6th graders frequency rates between siblings and peers, which will be discussed later.

Gender and Age Differences

The findings provide evidence for variations in the disclosure topics and problems boys and girls prefer to discuss with their best friends compared to their siblings. Males generally appeared to focus on shared interests when disclosing to peers and siblings, suggesting their relationships tend to be more activity oriented. While mutual hobbies are a fundamental in friendships (Berndt, 1982, 2002; Hartup, 1989; Hartup & Stevens, 1997), this study draws attention to its value in sibling relationships as well, specifically for boys.

Females, on the other hand, were more inclined to talk about problems with family and friends, but exclusively to their sibling. One possible explanation highlights

the higher levels of emotional support and intimacy females perceive in sibling relationships compared to males (Buhrmester & Furman, 1987; Buhrmester & Prager, 1995). In addition, girls begin to divulge private emotions and information at a younger age than boys (Buhrmester & Prager, 1995) and may already have the competence to use self-disclosure as a means for self-expression and obtaining social input regarding their personal experiences and dilemmas. Brothers and sisters often engage in disclosure early in their relationships (Howe, Aquan-Assee, & Bukowski, 1995). As a result, relationship closeness and trust have been developed in siblings' shared history, and may account for greater discussion of troubles with family and peers in their relationship.

When the nature of disclosure was compared by grade, older participants reported confiding family issues to their best friend more than younger ones. Early adolescence is a phase when individuals begin to spend less time with their family (Berndt, 1982; Updegraff & Obeidallah, 1999), interact more with their peer groups (Berndt, 1982), and conflict between siblings is greater (Lempers & Clark-Lempers, 1992). Therefore, young adolescents (i.e., Grade 6) may choose to disclose family issues to peers rather than to siblings. Several other possible reasons include distrust or apathy between siblings, a sibling's lack of awareness or ability to help, and/or the issues may involve siblings themselves. Additionally, early adolescence is a period wherein boys and girls may feel their peers can better understand their daily experiences, as well as their social and emotional changes without criticism.

Young adolescents may be sharing more about peer problems with their best friends due to the fact that peer relations and social status are becoming of greater concern (Berndt, 1982; Lempers & Clark-Lempers, 1992). As boys and girls become

older and individuate themselves from their siblings and parents, they may feel that the family context may not provide them with the emotional support or advice needed to navigate their peer groups and developmental changes of early adolescence. Given that interactions with the opposite sex increase after middle childhood (Buhrmester & Furman, 1987), this interest in the opposite sex is also more likely to manifest in early adolescence. This is consistent with the reports that young adolescents share more about attraction, romance, and cross-gender relationships than children (Buhrmester & Prager, 1995).

When investigating within grades, both 4th and 6th grade males conversed more about common hobbies (i.e., shared interests) with their best friends than females. This is another finding that supports the high priority that activities have in males' friendships across this developmental period. However, only older males disclosed about shared interests to their sibling. This pattern may also indicate the greater symmetrical power and increasing reciprocal exchanges between siblings that are evident as they age (Buhrmester & Furman, 1985b, 1990), which may increase engaging in common activities. Girls in the 6th grade disclosed family problems to both their best friend and their sibling compared to males and younger girls. Perhaps at this developmental period, females are more comfortable and capable of sharing familial concerns with their best friends and siblings than males and younger girls. Again, this can relate back to adolescents' tendency to disclose more to their peers than to their immediate family members (Berndt, 1982; Buhrmester & Prager, 1995; Lempers & Clark-Lempers, 1992).

Surprisingly, however, although girls in the 4th grade disclosed more overall to their best friend than 4th grade boys, there was no evidence to support that those in the 6th

grade preferred to disclose more to their best friend rather than their brother or sister as research would suggest (e.g., Buhrmester & Furman, 1987; Updegraff, 2002). Perhaps disclosure processes and intimacy in friendships of the 6th graders are still developing as they enter the period of early adolescents, and therefore the age differences were not as strong as expected. Additionally, friendships may have been newly formed or between individuals who are inclined to not share private affairs. Variations in the relationship history of friends or siblings may also be critical and requires further examination.

Results for gender replicate findings from earlier research, showing that girls disclose more to girls (Buhrmester & Furman, 1987; Buhrmester & Prager, 1995), and confirm that children and young adolescents disclose more information to a same-sex sibling than an opposite-sex sibling (Howe et al., 1995). Yet, girl-girl dyads were not found to disclose more than boy-boy dyads. Hence, maybe merely having a same-sex sibling fosters greater self-disclosure. Furthermore, even with same-gender dyads engaging in disclosure more, no other differences were found in disclosure topics or rates compared to cross-gender dyads.

Associations of Disclosure and Relationship Quality

Sibling disclosure exhibited positive correlations with the sibling relationship quality constructs of warmth, rivalry, and conflict, indicating its important association with sibling relationship quality. As hypothesized, confiding in a brother or sister was associated with increased warmth in the sibling relationship. This finding supports Howe et al.'s (2000) study, wherein participant's reported levels of warmth were positively associated with sibling disclosure. It suggests that self-disclosure is likely to occur along with positive emotions and may encourage communication between siblings. Disclosing

to a sibling most likely enhances intimacy and trust (Howe et al., 2000, 2001), which may also increase warmth between siblings. Alternatively, siblings have developed a supportive and receptive communicative exchange as a consequence of early and regular positive interaction or contact (Howe et al., 2000). The link between warmth and sibling disclosure seems to be stronger for older students (i.e., Grade 6) than younger ones.

The study's results were contrary to the expectation that reported conflict and rivalry would be lower for siblings who engaged in disclosure. Perhaps, siblings who disclose to one another may interact more frequently than those who do not disclose, thus increasing opportunities and time spent engaging in disputes, particularly conflict or rivalry. Additionally, Howe et al. (2000) proposed that siblings who shared negative experiences and affect may increase the likelihood of disclosure. Brothers and sisters who report more arguments may have advanced social competency skills and social understanding that allows them to resolve their issues through disclosure. For example, constructive (e.g., collaborative resolution and reasoning) rather than destructive (e.g., hostile and aggressive behaviors) conflict-resolution strategies may be more common for siblings who disclose to one another (Howe et al., 2000; Howe et al., 2011). While rivalry's relationship to self-disclosure has not been investigated previously, this study indicates that it is a factor to be considered. Rivalry has been found to be associated with a negative sibling relationship and interaction if a boy or girl perceives parental differential treatment as excessive (Howe et al., 2011). Hence, if sibling rivalry is high, yet not believed to be unfair, disclosure may help children discuss and comprehend parents' and siblings' motivations for their behavior. Evidently, this merits further investigation.

There were positive associations with distinct variables of sibling relationship quality and sibling disclosure, thus children who disclosed to their siblings also had higher overall sibling relationship quality. Moreover, when evaluating relationship quality across ages, the older children who confided in their siblings reported more positive overall sibling relationship quality. This implies that disclosure processes possibly contribute to better affective sibling relationships, which becomes increasingly apparent as children grow up. Then again, siblings who have initially cultivated a close and cordial bond may maintain it through the process of disclosure. The rate of sibling disclosure was not found to be related to sibling relationship variables or overall relationship quality. This indicates that the frequency of revealing personal information may be independent from sibling relationship quality, or that self-disclosure quality, rather than its quantity, could be of greater importance in sibling relationship. A closer examination needs to be conducted to verify this conclusion.

Unexpectedly, only one feature of friendship quality (i.e., conflict) was found to vary between persons who disclosed to their friends and those who did not, and this was only marked in older boys and girls. Due to the fact that most friendships are based on mutual likeness (Hartup, 1989; Hartup & Stevens, 1997), it is likely that children pick friends who place similar value on disclosure. Therefore, if two friends equally do or do not care for sharing personal issues, then it may not be associated with friendship quality. This could account for the lack of associations between overall friendship quality and friend disclosure. Another explanation is that because disclosure is central and expected in nearly all friendships (Berndt & Hanna, 1995), its links with friendship quality are not

as strong as anticipated. Last but not least, these friendships may not have reached the stage wherein disclosure processes profoundly affected friendship quality.

As expected, the findings indicated that young adolescents who did not disclose to their friends reported higher levels of conflict within their friendship. Thus, it seems that negative contact was significantly related to the lower likelihood of sharing information with peers. Research indicates that conflict can cause friends to become withdrawn and eventually lead to a breakdown in the relationship (Hartup, 1989). Discord and tension between friends may intensify if they do not take the time to discuss and resolve their problems. Conversely, friendships that were already high in conflict may simply be running their course, leading to a deteriorating bond and less communication.

Unlike sibling disclosure, how often boys and girls confided in their friends was positively related to various friendship quality components and overall quality. Individuals who reported higher levels of help in friendships increasingly shared private information, and this was significantly evident in younger children (i.e., Grade 4). This finding suggests that youngsters may use disclosure as a means of acquiring instrumental guidance, advice, and emotional support during challenging and stressful times. Friends in relationships marked by a great deal of help may simply engage in sharing thoughts and ideas, because the relationship has grown through constant counseling and caring for one another. Clearly, further research is needed to investigate these speculations.

Younger children also demonstrated positive associations between their rate of disclosing to friends and the factors of security and closeness. Persons who are assured in their friendships perceive greater reliance, trust, and stability despite trouble within them (Bukowski et al., 1994). Accordingly, with increased reports of security between friends,

the more likely they will disclose to one another, and at the same time more disclosure can increasingly sustain and strengthen intimacy and dependence in the relationship. Children often describe closeness with a friend as sign of the relationship's strength and attachment (Bukowski et al., 1994; Berndt & Perry, 1986) and greater reciprocity (Hartup, 1989; Hartup & Stevens, 1997). For this reason, it was expected that heightened closeness may be a basis for greater self-disclosure to friends. Further, revealing private and personal matters to a friend almost certainly fosters trust and affection, which reinforces the relationship bond. Alternatively, friends characterized by trust and affection may increase the likelihood that the dyad will disclose personal information to one another.

In this study, boys and girls who disclosed to both siblings and best friends had higher sibling relationship quality, especially in perceived warmth. This may imply a carry-over pattern through disclosure processes, wherein disclosing to siblings may have provided children with the context for the cultivation of closeness and social and emotional competencies, inclining them to be more open and receptive to friend disclosure. On the other hand, it is imperative to bear in mind that sibling relationships lower in positive affect may lead individuals to seek out their friends as their main sources of support and recipient of disclosure, evading sibling disclosure completely. It is also possible that children who disclose to only their best friend may not be intimate with their sibling due to various factors of age difference, birth order, or competition (Furman & Buhrmester, 1985a, 1985b). Clearly these speculations warrant further exploration.

The findings indicate that the disclosure competencies learned and/or applied in sibling relationship may have continuing effects, as they are associated with more

disclosure in both friendships in middle childhood (i.e., Grade 4) and early adolescence (i.e., Grade 6). This confirms that boys and girls who have siblings, may have previously developed and used social and communication skills in the family context that can be easily transferred, extended, and enhanced within the interpersonal interactions in the peer context. An alternative explanation is that children and adolescents who begin to engage in disclosure within their friendships and experience beneficial or constructive effects may decide to promote it in their sibling relationships. While this is one of the first studies to consider interactions of disclosure to siblings and peers, further study would provide possible answers to these questions.

In conclusion, processes of disclosure appear to play an important role in enriching in sibling relationships and friendships through its meaningful function. Ultimately, the more satisfied children and adolescents are with relationships with their siblings and friends, the more frequent disclosure behavior is displayed. Although perceptions of quality can differ between the persons in the relationship (Hartup, 1996), mutual positive interactions likely contribute to reciprocated exchange of confidential information.

Limitations

There are various limitations that must be recognized. First, the majority of the participants were from Caucasian, English-speaking families of greater Montreal. Due to the fairly homogenous population, the results may not apply to children of other ethnic and social backgrounds. The study's aim was to examine the developmental periods of middle childhood and early adolescence, therefore results may also not be generalized to

other age ranges. Further, developmental and individual differences between the children within each grade needs to also be taken into account concerning their responses.

There are some limitations regarding the data collection. A small number of participants also did not properly complete questionnaires, wherein a page was missed entirely. For these instances, means of the completed responses were used for missing cases. Self-reports measures were used to provide subjective insight on relationship interaction and quality. Although they reflect the participant's perception, there are no other informants' accounts of a participant's self-disclosure, which may have provided richer information. There is the possibility of response biases. Some children may have wanted to describe their sibling relationships or friendships in a more positive manner for a more favorable view by others.

The Friendship Activity Questionnaire is a measure for friendship quality perceptions of young adolescents, and was originally assessed with a sample composed of 5th graders and higher (Bukowski et al., 1994). The age of the 4th graders may be influencing their constructs of friendship quality, which may not be as sophisticated or cohesive as the older students. Further, this may account for the particularly low internal consistency in the subscale of companionship for the 4th grade participants. Mutual friend nomination was not used in this study, therefore the perception of friendship between the target child and the identified best friend is only based on one child's report. Likewise, the recipient sibling's perception of closeness to the participant was not assessed. This may affect the disclosure that occurs with the friendship and/or sibling relationship.

Research indicates that cross-gender friendships begin to surface during early adolescence (Buhrmester & Furman, 1987). However, this sample had a lack of cross-gender friendships. Therefore, the opportunity to investigate disclosure topics and frequency was not possible, and the analysis of potential similarities and differences with same-gender friendships could not be conducted.

Another limitation of the study is its exploratory nature. In order to obtain a more comprehensive picture of the disclosure in the two relationships, as well as the associations with relationship quality, the present study did not employ more sophisticated statistics. Perhaps a larger sample size may have given rise to more significant results, particularly the associations of the relationship of friendship quality to friend disclosure. With the correlational analyses, the causal relationships cannot be determined.

Finally, an important limitation that must be considered is the lack of data on children's personal qualities that may influence their self-disclosure. Studies have shown that individual attributes such as temperament, extroversion, and liking toward the recipient (Buhrmester & Prager, 1995; Jourard, 1971a, 1971b) have associations with disclosure. These associations should be considered. The present study focuses on disclosure as a relationship interaction, and it was imperative to investigate in the context of the sibling relationship and friendship. Despite the number of limitations, the current study provides rich preliminary data to further our understanding of the nature of sibling relationships and friendships.

Directions for Future Research

Future examinations of self-disclosure in children of various ethnic minority or social backgrounds should be conducted. Cultural and social variables on the frequency and topics of disclosure may vary according to a child's background. With the participants somewhat close in age, perhaps comparing children of other age ranges within adolescence may suggest other patterns (e.g., early versus late adolescence). Future studies should also be undertaken with participants from a wider variety of family backgrounds (i.e., two-parent versus one-parent households).

Given the dyadic nature of relationships, future studies should take into account the experience of each child in the sibling relationship and friendship. There are also individual differences in perceptions of frequency of self-disclosure and components of relationship quality. For example, disclosing occasionally may be considered frequent by someone else, or a relationship rated high in warmth or closeness by one person may not be characterized in the same way by another person. Interviewing both individuals about their relationship interactions and disclosure within the relationship, as well as having each person assess relationship quality would arrive at a more comprehensive representation of relationship dynamics. Observations of sibling and peer relations may also be helpful in exploring aspects of the sibling relationship and friendship not detected with the use of questionnaires, such as joint activities and rates of interactions between siblings and friends.

The use of other measures for relationship quality should be considered for future studies to explore additional factors in reporting the positive or negative aspects of sibling relationships and friendships. Hence, another direction for future research is to identify other important mediators that influence disclosure and relationship quality. Such

examples might include time spend with a friend versus sibling and birth order or age difference between siblings or compared to one's friend. It would also be interesting to study whether there are associations with friend and sibling disclosure to other relationships with a friend or sibling not perceived to be as close, or even parent disclosure. Other important considerations for future research are friendship duration and history. The length of time in a friendship may be a potential confounder of intimacy with longer friendships associated with more trust and intimacy.

Larger samples may want to look at the effects in self-disclosure behavior of boys and girls who have identified more than one best friend, or have twins and multiple siblings. In light of the finding of the present study, examining other social and emotional variables, such as anxiety and shyness may also be of interest. Future research is needed on the contextual opportunities and constraints of children's verbal expressiveness. These may include social expectations pertaining to self-disclosing behavior, particularly for males. Lastly, individuals' perceptions of roles and functions of sibling relationships and friendship in their lives should be taken into account. In sum, there are many avenues for future work.

Implications

Literature has emphasized the influence of friends and siblings on children's well-being (e.g., East & Rook, 1992; Updegraff & Obeidallah, 1999; Updegraff, 2002; Yeh & Lempers, 2004). By investigating children and adolescents' sibling relationships and friendships, the understanding of the development of these interpersonal relationships is broadened and the relative importance of family and friends is highlighted.

Disclosure is an important process in any relationship (Jourard, 1971a, 1971b), and offers a vital context for developing emotional, social, and communication skills. Despite the similarities of a sibling relationship and a friendship, the two relationships seem to afford different environments for boys' and girls' disclosure processes in middle childhood and early adolescence. Moreover, this study emphasizes the value of sharing secrets and problems in fostering positive exchanges, and in turn, perhaps improving the quality of sibling and peer relationships. This research on disclosure processes can and should inform parents, teachers, and clinicians by highlighting the need for educational programs, interventions, and therapy strategies that help children and adolescents develop and sustain satisfying sibling relationships and friendships through self-disclosure.

Based on the results of this study, boys and girls are selective about the subject matter and problems, as well as the degree to which they share private thoughts and experiences with friends compared to siblings. Further, both middle childhood and early adolescence are periods of developmental changes in social and emotional functioning, and appear to be optimal periods for underscoring the significance of peer and sibling disclosure in fostering intimacy, trust, and conflict resolution. Disclosure can be promoted at home and in school through the observation of children and adolescents' behavior, and reinforcement of strategies for mutual emotional support and disclosure behaviors that are sensitive and appropriate to age and gender. In the process, they may become individuals who are equipped with better relational skills and greater social competence, as well as heightened self-awareness and self-expression. These capabilities can be applied to one's social network and achieve positive outcomes in a greater number of interpersonal relationships.

With the paucity of research on children and adolescents' self-disclosure, this investigation not only further extends literature in this field, but also peer relations research, as it incorporates the interactions of friendship quality and peer disclosure. Lastly, indications of possible associations between self-disclosure, relationship quality, in addition to gender and age, provide many opportunities for future research.

Conclusion

While the function of sibling relationships and friendships may change across development, some individuals often disclose to both their siblings and their peers. This present study is one of the first to compare boys' and girls' disclosure in friendships and sibling relationships during middle childhood and early adolescence. The clarification of the specific dynamics of individuals' disclosure to friends and siblings offers insight into a specific exchange in their close interpersonal relationships. Another important aspect of the current study is the demonstration of how children differ in their disclosure processes with between the two relationships.

This study extends past research by providing some of the first evidence to suggest the associations between dyad structure, relationship quality with siblings and friends, and the disclosure processes within these relationships. Sibling disclosure is clearly an important variable, exhibiting associations with the sibling relationship quality constructs of warmth, rivalry, and conflict. Although the results of this study are consistent with the idea that disclosure is a crucial in friendships, the findings expand on these notions by indicating how friendship quality links with disclosure frequency.

Healthy relationships with siblings and friends, possessing closeness, care, and mutual support, are important for children's enhanced social-emotional development and

adjustment, as well as overall well-being. Self-disclosure may facilitate the development of high-quality relationships within a dyad. Therefore, the current study has important implications for understanding children's relationships with their siblings and friends throughout development.

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Appendix A

Sibling Relationship Questionnaire (SRQ)

Item Assignment:

<u>Scale</u>	<u>Item Number</u>
Warmth	1, 3, 4, 8, 9, 11, 12, 17, 19, 20, 24, 25, 26, 28, 29, 34, 36, 37, 41, 42, 44, 45
Conflict	10, 16, 27, 33, 43, 49
Power	5, 6, 14, 15, 21, 22, 31, 32, 38, 39, 47, 48
Rivalry	2, 7, 13, 18, 23, 30, 35, 40, 46

I.D. #:

Grade:

For each question, check the answer that is best for you.

1. Some brother/sisters and sisters do nice things for each other a lot, while other brother/sisters and sisters do nice things for each other only a little. How much do both you and your brother/sister/sister do nice things for each other?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
2. Who usually gets treated better by your mother, you or your brother/sister/sister?
 My brother/sister/sister almost always gets treated better
 My brother/sister/sister often gets treated better
 We get treated about the same
 I often get treated better
 I almost always get treated better

3. How much do you show your brother/sister/sister how to do things he/she doesn't know how to do?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
4. How much does your brother/sister/sister show you how to do things you don't know how to do?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
5. How much do you tell your brother/sister what to do?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
6. How much does your brother/sister tell you what to do?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
7. Who usually gets treated better by your father, you or your brother/sister?
- My brother/sister almost always gets treated better
 - My brother/sister often gets treated better
 - We get treated about the same
 - I often get treated better
 - I almost always get treated better
8. Some brother/sisters and sisters care about each other a lot while other brother/sisters and sisters don't care about each other that much. How much do you and your brother/sister care about each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much

9. How much do you and your brother/sister go places and do things together?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
10. How much do you and your brother/sister insult and call each other names?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
11. How much do you and your brother/sister like the same things?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
12. How much do you and your brother/sister tell each other everything?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
13. Some brothers and sisters try to out-do or beat each other at things a lot, while other brothers and sisters try to out-do or beat each other only a little. How much do you and your brother/sister try to out-do or beat each other at things?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
14. How much do you admire and respect your brother/sister?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much

15. How much does your brother/sister admire and respect you?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
16. How much do you and your brother/sister disagree and quarrel with each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
17. Some brothers and sisters cooperate a lot, while other brothers and sisters cooperate only a little. How much do you and your brother/sister cooperate with each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
18. Who gets more positive attention from your mother, you or your brother/sister?
- My brother/sister almost always gets more positive attention
 - My brother/sister often gets more positive attention
 - We get about the same amount of positive attention
 - I often get more positive attention
 - I almost always get more positive attention
19. How much do you help your brother/sister with things he/she can't do by him/herself?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
20. How much does your brother/sister help you with things you can't do by yourself?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much

21. How much do you make your brother/sister do things?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
22. How much does your brother/sister make you do things?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
23. Who gets more positive attention from your father, you or your brother/sister?
 My brother/sister almost always gets more positive attention
 My brother/sister often gets more positive attention
 We get about the same amount of positive attention
 I often get more positive attention
 I almost always get more positive attention
24. How much do you love your brother/sister?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
25. How much does your brother/sister love you?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
26. Some brothers and sisters play around and have fun with each other a lot, while other brothers and sisters play around and have fun with each other only a little. How much do you and your brother/sister play around and have fun with each other?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much

27. How mean are you and your brother/sister to each other?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
28. How much do you and your brother/sister have in common?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
29. How much do you and your brother/sister share secrets and private feelings?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
30. How much do you and your brother/sister compete with each other?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
31. How much do you look up to and feel proud of this brother/sister?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much
32. How much does your brother/sister look up to and feel proud of you?
 Hardly at all
 Not too much
 Somewhat
 Very much
 Extremely much

33. How much do you and your brother/sister get mad at and get into arguments with each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
34. How much do both you and your brother/sister share with each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
35. Who does your mother usually favor, you or your brother/sister?
- My brother/sister almost always is favored
 - My brother/sister is often favored
 - Neither of us is favored
 - I am often favored
 - I almost always am favored
36. How much do you teach your brother/sister things that he/she doesn't know?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
37. How often does your brother/sister teach you things that you don't know?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
38. How much do you order your brother/sister around?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much

39. How much does your brother/sister order you around?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
40. Who does your father usually favor, you or your brother/sister?
- My brother/sister almost always is favored
 - My brother/sister is often favored
 - Neither of us is favored
 - I am often favored
 - I am almost always favored
41. How much is there a strong feeling between you and this brother/sister?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
42. Some kids spend lots of time with their brother/sisters and sisters, while others don't spend so much. How much free time do you and this brother/sister spend together?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
43. How much do you and your brother/sister bug and pick on each other in mean ways?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
44. How much are you and your brother/sister alike?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much

45. How much do you and your brother/sister tell each other things you don't want other people to know?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
46. How much do you and your brother/sister try to do things better than each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
47. How much do you think highly of your brother/sister?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
48. How much does your brother/sister think highly of you?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much
49. How much do you and your brother/sister argue with each other?
- Hardly at all
 - Not too much
 - Somewhat
 - Very much
 - Extremely much

Appendix B

Friendship Activity Questionnaire (FAQ)

Item Assignment:

<u>Scale</u>	<u>Item Number</u>
Companionship	1, 3, 6, 22, 29, 30
Conflict	17, 20, 24, 41, 42
Help	2, 4, 7, 10, 12, 19, 21, 25, 28, 31, 34, 39
Security	5, 9, 15, 23, 27, 32, 36, 40, 43
Closeness	11, 14, 16, 18, 33, 38, 44, 46

Put the name of your best friend here:

We want to ask some questions just about you and the person you think of as your best friend so we can know what your best friend is like. We have some sentences that we would like you to read. Please tell us whether this sentence describes your friendship or not. Some of the sentences might be really true for your friendship while other sentences might not be very true of your friendship. Remember, there are no right or wrong ways to answer these questions, and you can use any numbers on the scale.

After each sentence there is a scale that goes from 1 to 5.

“1” means the sentence is probably **not true** for your friendship,

“2” means that it **might be true**,

“3” means that it is **usually true**,

“4” means that it is **very true**,

“5” means that it is **really true** for your friendship.

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

Example

X1. My friend and I play games and other activities with each other.	Not true		Usually true		Really true
	1	2	3	4	5
1. My friend and I spend a lot of our free time together.	Not true		Usually true		Really true
	1	2	3	4	5
2. My friend gives me advice when I need it.	Not true		Usually true		Really true
	1	2	3	4	5
3. My friend and I do things together.	Not true		Usually true		Really true
	1	2	3	4	5
4. My friend and I help each other.	Not true		Usually true		Really true
	1	2	3	4	5
5. Even if my friend and I have an argument we would still be able to be friends with one another.	Not true		Usually true		Really true
	1	2	3	4	5
6. My friend and I play together at recess.	Not true		Usually true		Really true
	1	2	3	4	5
7. If other kids were bothering me, my friend would help me.	Not true		Usually true		Really true
	1	2	3	4	5
8. Our friendship is just as important to me as it is to my friend.	Not true		Usually true		Really true
	1	2	3	4	5
9. I can trust and rely upon my friend.	Not true		Usually true		Really true
	1	2	3	4	5
10. My friend helps me when I am having trouble with something.	Not true		Usually true		Really true
	1	2	3	4	5

BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE TO READ EACH ITEM CAREFULLY.

11. If my friend had to move away I would miss him/her.	Not true		Usually true		Really true
	1	2	3	4	5
12. If I can't figure out how to do something, my friend shows me how.	Not true		Usually true		Really true
	1	2	3	4	5
13. Sometimes it seems that I care more about our friendship than my friend does.	Not true		Usually true		Really true
	1	2	3	4	5
14. When I do a good job at something, my friend is happy for me.	Not true		Usually true		Really true
	1	2	3	4	5
15. There is nothing that would stop my friend and I from being friends.	Not true		Usually true		Really true
	1	2	3	4	5
16. Sometimes my friend does things for me or makes me feel special.	Not true		Usually true		Really true
	1	2	3	4	5
17. When my friend and I have an argument, he/ she can hurt my feelings.	Not true		Usually true		Really true
	1	2	3	4	5
18. When I have not been with my friend for a while I really miss being with him/her.	Not true		Usually true		Really true
	1	2	3	4	5
19. If somebody tried to push me around, my friend would help me.	Not true		Usually true		Really true
	1	2	3	4	5
20. I can get into fights with my friend.	Not true		Usually true		Really true
	1	2	3	4	5

BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE TO READ EACH ITEM CAREFULLY.

21. My friend would stick up for me if another kid was causing me trouble.	Not true		Usually true		Really true
	1	2	3	4	5
22. When we have free time at school, such as lunchtime or recess, my friend and I usually do something together or spend time with each other.	Not true		Usually true		Really true
	1	2	3	4	5
23. If I have a problem at school or at home I can talk to my friend about it.	Not true		Usually true		Really true
	1	2	3	4	5
24. My friend can bug or annoy me even though I ask him not to.	Not true		Usually true		Really true
	1	2	3	4	5
25. If I forgot my lunch or needed a little money my friend would loan it to me.	Not true		Usually true		Really true
	1	2	3	4	5
26. I think of things for us to do more often than my friend does.	Not true		Usually true		Really true
	1	2	3	4	5
27. If I said I was sorry after I had a fight with my friend he/she would still stay mad at me.	Not true		Usually true		Really true
	1	2	3	4	5
28. My friend helps me with tasks that are hard or need two people.	Not true		Usually true		Really true
	1	2	3	4	5
29. My friend and I go to each other's houses after school and on weekends.	Not true		Usually true		Really true
	1	2	3	4	5

BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE TO READ EACH ITEM CAREFULLY.

30. Sometimes my friend and I just sit around and talk about things like school, sports, and other things we like.	Not true		Usually true		Really true
	1	2	3	4	5
31. If I have questions about something my friend would help me get some answers.	Not true		Usually true		Really true
	1	2	3	4	5
32. Even if other persons stopped liking me, my friend would still be my friend.	Not true		Usually true		Really true
	1	2	3	4	5
33. I know that I am important to my friend.	Not true		Usually true		Really true
	1	2	3	4	5
34. My friend would help me if I needed it.	Not true		Usually true		Really true
	1	2	3	4	5
35. Being friends together is more important to me than it is to my friend.	Not true		Usually true		Really true
	1	2	3	4	5
36. If there is something bothering me I can tell my friend about it even if it is something I cannot tell to other people.	Not true		Usually true		Really true
	1	2	3	4	5
37. My friend puts our friendship ahead of other things.	Not true		Usually true		Really true
	1	2	3	4	5
38. When I have something that is hard I can count on my friend for help.	Not true		Usually true		Really true
	1	2	3	4	5
39. When I have to do something that is hard I can count on my friend for help.	Not true		Usually true		Really true
	1	2	3	4	5

BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE TO READ EACH ITEM CAREFULLY.

40. If my friend or I do something that bothers the other one of us we can make up easily.	Not true		Usually true		Really true
	1	2	3	4	5
41. My friend and I argue a lot.	Not true		Usually true		Really true
	1	2	3	4	5
42. My friend and I disagree about many things.	Not true		Usually true		Really true
	1	2	3	4	5
43. If my friend and I have a fight or argument we can say "I'm sorry" and everything will be alright.	Not true		Usually true		Really true
	1	2	3	4	5
44. I feel happy when I am with my friend.	Not true		Usually true		Really true
	1	2	3	4	5
45. My friend likes me as much as I like him/her.	Not true		Usually true		Really true
	1	2	3	4	5
46. I think about my friend even when my friend is not around.	Not true		Usually true		Really true
	1	2	3	4	5

Appendix C

Interview Transcript

Subject #: Name: Sex: Grade: Age:
Tape #: School:

- 1) Do you have brothers and/or sisters?
 - a) How many of each?
 - b) Ages?
 - c) Which brother/sister do you feel the closest to?
 - d) (If child feels close to one sibling) Why do you feel closest to this particular brother/sister?
 - e) (If child does not feel close to one sibling) Why don't you feel close to a brother/sister?

- 2) Do you have a best friend?

If yes:

 - a) Girl or boy?
 - b) Age? Grade?
 - c) Does he/she go to the same school? In the same class?
 - d) Why is this particular child your best friend?
 - e) Do you feel close to your best friend?

If no:

 - f) Why not?
Have you ever had a best friend?
 - g) Do you have friends, but just not best friends?

- 3) Who would you tell your secrets or special thoughts to?
 - a) Do you tell your secrets or special thoughts to your brother/sister?
 - b) Do you tell your secrets or special thoughts to your best friend?
 - c) Do you tell your brother/sister and best friend the same kind of secrets or special thoughts? Why or why not?

- 4) Now I'm going to ask you some questions about what you share with your best friend. Do you share special thoughts with your best friend?

If yes:

 - a) You don't have to tell me any of your secrets, but what kinds of things (in general) do you tell your friend?

- b) Are there special kinds of you share only with your friend that you wouldn't share with anyone else?
Are there some kinds of topics you wouldn't share with your friend?
Can you tell me a bit about this?
- c) How often do you share secrets?
- d) How do you feel when you share secrets with your friend? (Good or bad)?

If no:

- e) Why don't you tell your secrets to your friend?
How do you feel about this?

- 5) Does your friend tell you any secrets or special things?

If yes:

- a) How often does your friend tell you secrets?
- b) What kind of things does your friend tell you?
- c) How do you think your friend feels when he/she shares secrets with you? (Good or bad)?

If no:

- d) Why do you think that your friend does not tell you any of his/her secrets or personal/private things?
How do you think he/she feels about this?

- 6) Now I'm going to ask you some questions about what you share with your brother/sister. Do you share special thoughts with your brother/sister?

If yes:

- a) You don't have to tell me any of your secrets, but what kind of things do you tell your brother/sister?
- b) Are there special kinds of topics you share only with your brother/sister that you wouldn't share with anyone else?
Are there some kinds of topics you wouldn't share with your brother/sister?
- c) How often do you share secrets?
- d) How do you feel when you share secrets with your brother/sister?

If no:

- e) Why don't you tell your secrets to your brother/sister?

- 7) Does your brother/sister tell you any secrets or special?

If yes:

- a) How often does your brother/sister share secrets?

- b) What kinds of things does your brother/sister tell you?
- c) How do you think your brother/sister feels when he/she shares secrets with you?

If no:

- d) Why do you think that your brother/sister does not tell you any of his/her secrets or personal/private things?
- 8) What kind of problems do you tell your friend?
- a) Do you ever share problems about your family? Can you give me an example of the kind of problem, without going into details?
 - b) Do you ever share problems about friends? Example?
 - c) Do you ever share problems about school? Example?
- 9) What kind of problems does your friend tell you about?
- a) Does he/she ever share problems about his/her family? Example?
 - b) Does he/she ever share problems about friends? Example?
 - c) Does he/she ever share problems about school? Example?
- 10) What kind of problems do you tell your brother/sister?
- a) Do you ever share problems about your family? Example?
 - b) Do you ever share problems about friends? Examples?
 - c) Do you ever share problems about school? Example?
- 11) What kind of problems does your brother/sister tell you about?
- a) Does he/she ever share problems about the family? Example?
 - b) Does he/she ever share problems about friends? Example?
 - c) Does he/she ever share problems about school? Example?
- 12) Do you think your brother/sister is a friend (good or best)?
Why or why not?
- 13) Does your brother/sister think of you as his/her friend (good or best)?
Why or why not?

Appendix D

Interview Coding Scheme

Participant Demographic Information

- A. Participant ID
- B. Participant Gender
 - 1 = Male
 - 2 = Female
- C. Participant Age
- D. Participant Grade
 - 1 = 4th Grade
 - 2 = 6th Grade

Question 1

- A. Indicate whether participant has siblings
 - 1 = No
 - 2 = Yes

If Yes:

- 1a. Total number of siblings
- 1b. Individual Sibling Demographics (Descending order by age)
 - i. Sibling Age
 - ii. Sibling Gender
 - 1 = Male
 - 2 = Female
- 1c. Participant's identified closest sibling
 - i. Closest Sibling's Age
 - ii. Closest Sibling Gender
 - 1 = Male
 - 2 = Female
 - iii. Birth Order of Closest Sibling
 - 1 = Younger than participant
 - 2 = Older than participant
 - 3 = Same age as participant (*i.e., twin*)
- 1d. Indicate reason why participant feels closest to identified sibling
 - i. Reciprocal: *Interactions between participant and sibling are based on mutual and egalitarian exchanges. Examples include play and companionship (e.g., "We like playing together", "We go shopping at the mall together", "We spend a lot of time with each other", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
 - ii. Complementary: *Interactions between participant and sibling are based on hierarchical exchanges with one person having more knowledge or capability than the other. Examples include teaching, caretaking, and protecting (e.g.,*

“He helps me with homework”, “She teaches me new things all the time”, etc.)

- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- iii. Personality: *Participant characterizes his/her sibling as having positive personal attributes (e.g., “She is nice”, “He is smart”, “My sibling is a good person”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- iv. Trust: *Participant characterizes his/her sibling as someone he/she can trust, and may include mutual trust between them (e.g., “I trust her with my toys”, “He trusts me to keep his secrets”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- v. Affection: *Participant characterizes his/her sibling as expressing positive emotional and physical affect toward him/her (e.g., “She understands me”, “He loves me”, “She hugs me”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- vi. Shared interests: *Participant and sibling have and/or engage in the same interests or activities (e.g., “We both like the same things”, “We like to play the same Nintendo games”, “She likes to read the same books”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- vii. Self-disclosure: *Participant and sibling divulge personal information to one another (e.g., “I can tell her things I don’t tell anyone else”, “I like to share stories with him”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- viii. Age: *Sibling’s age accounts for closeness with participant (e.g., “We’re the closest in age”, “My other sister is too old”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)
- ix. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No close sibling identified)

- 1e. Indicate reason why participant does not feel close to a sibling
- i. Conflict: *Interaction between participant and sibling consist of actual or perceived disagreement or incompatibility with one opposing the other. Examples include fighting, resisting, and protesting (e.g., “My brother and I argue a lot”, “My sister always argues with me”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)
 - ii. Age: *Sibling’s age accounts for lack of closeness with participant (e.g., “My sister is too young”, “My brother is a lot older than me”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)
 - iii. Gender: *Sibling’s gender accounts for lack of closeness with participant (e.g., “We are not close because she’s a girl”, “My brother is into boy things”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)
 - iv. Personality: *Participant characterizes his/her sibling as having negative personal attributes (e.g., “He is really mean”, “She’s kind of boring”, “My sister is really rude”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)
 - v. Lack of trust: *Participant characterizes his/her sibling as someone he/she cannot trust, and may include a lack of mutual trust between them (e.g., “I can’t trust her with my toys”, “He doesn’t trust me to keep his problems secret”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)
 - vi. Different interests: *Participant and sibling have and/or engage in different interests or activities (e.g., “I don’t really like what she likes”, “My brother and I don’t really have anything in common”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)
 - vii. Other: *Reasons not applicable to any category*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified sibling as close)

Question 2

- A. Indicate whether participant has a best friend

- 1 = No
- 2 = Yes

If Yes:

2a. Best friend Gender

- 1 = Male
- 2 = Female

2b. Best Friend Age

2b. Best Friend Grade

- 1 = Same grade
- 2 = Lower grade
- 3 = Higher grade

2c. Indicate if best friend is in the same school

- 1 = No
- 2 = Yes

2c. Indicate if best friend is in the same class

- 1 = No
- 2 = Yes

2d. Indicate participant's reason why individual is best friend

i. Reciprocal: *Interactions between participant and best friend are based on mutual and egalitarian exchanges. Examples include play and companionship (e.g., "We hanging out together", "We play games at her house", "We spend a lot of time with each other", etc.)*

- 1 = Not indicated
- 2 = Yes
- 99 = Not applicable (No best friend identified)

ii. Complementary: *Interactions between participant and best friend are based on hierarchical exchanges with one person having more knowledge or capability than the other. Examples include teaching, caretaking, and protecting (e.g., "She helps me with homework", "He defends me", etc.)*

- 1 = Not indicated
- 2 = Yes
- 99 = Not applicable (No best friend identified)

iii. Personality: *Participant characterizes his/her best friend as having positive personal attributes (e.g., "He's very nice", "She is a happy person", "My friend is a good person", etc.)*

- 1 = Not indicated
- 2 = Yes
- 99 = Not applicable (No best friend identified)

iv. Trust: *Participant characterizes best friend as someone he/she can trust, and may include mutual trust between them (e.g., "I trust her with my problems", "She trusts me to keep his secrets", etc.)*

- 1 = Not indicated
- 2 = Yes
- 99 = Not applicable (No best friend identified)

- v. Affection: *Participant characterizes best friend as expressing positive emotional and physical affect toward him/her (e.g., “She understands me”, “He loves me”, “She hugs me”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified)
- vi. Shared interests: *Participant and best friend have and/or engage in the same interests or activities (e.g., “We both like to do the same things”, “We like to play dress-up”, “He does karate like me”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified)
- vii. Self-disclosure: *Participant and best friend divulge personal information to one another (e.g., “I can tell her things I don’t tell anyone else”, “I like to share stories with him”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified)
- viii. History: *Shared history and/or time participant and best friend have known each other account for friendship between them (e.g., “We’ve known each other since we were young”, “I have been friends with her for a long time”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified)
- ix. Other: *Reasons not applicable to any category*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified)

2e. Indicate if participant feels close to best friend

- 1 = No
- 2 = Yes

If No:

2f. Indicate reason why participant does not feel close to best friend

- i. Conflict: *Interaction between participant and best friend consist of actual or perceived disagreement or incompatibility with one opposing the other. Examples include fighting, resisting, and protesting (e.g., “My friend and I argue most of the time”, “We always seem to get into fights”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified best friend as close)
- ii. Age: *Best friend’s age accounts for lack of closeness with participant (e.g., “My friend is a little too young”, “He is older than me”, etc.)*
 - 1 = Not indicated

- 2 = Yes
 - 99 = Not applicable (Identified best friend as close)
- iii. Personality: *Participant characterizes best friend as having negative personal attributes (e.g., “She not really nice”, “He can be annoying”, “My friend is mean”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified best friend as close)
- iv. Lack of trust: *Participant characterizes best friend as someone he/she cannot trust, and may include a lack of mutual trust between them (e.g., “I don’t really trust her”, “He doesn’t trusts me to keep his secrets”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified best friend as close)
- v. Different interests: *Participant and best friend have and/or engage in different interests or activities (e.g., “I don’t really like what my friend likes”, “My friend and I don’t really have anything in common”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified best friend as close)
- vi. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Identified best friend as close)

2f. Indicate if participant has ever had a best friend

- 1 = No (Never)
- 2 = Yes (Had a best friend in the past but not at present)
- 99 = Not applicable (Identified a best friend)

2g. Indicate if participant has friends but no best friend

- 1 = No (Does not have friends)
- 2 = Yes (Has friends but no best friend)
- 99 = Not applicable (Identified a best friend)

Question 3

Indicate if participant tells secrets/special thoughts to:

3a. Sibling

- 1 = Not indicated
- 2 = Yes

3b. Friend

- 1 = Not indicated
- 2 = Yes

3. Parent

- 1 = Not indicated
- 2 = Yes

3. Other: *Person identified is not a sibling, friend, or parent (e.g., aunt/uncle, teacher, grandparent, cousin, etc.).*

- 1 = Not indicated
- 2 = Yes

3. Nobody

- 1 = Not indicated
- 2 = Yes

3. Participant has no secrets

- 1 = Not indicated
- 2 = Yes

3c. Indicate if participant tells same secrets to sibling and best friend

- 1 = No
- 2 = Yes
- 99 = (No best friend identified)

If No:

3c. Indicate reason why participant does not tell the same secrets to sibling and best friend

- Age: Sibling/best friend's age accounts for disclosure of different secrets by participant (e.g., "My friend is a little too young", "He is older than me", etc.)*
 - 1 = Not indicated
 - 2 = Age of sibling
 - 3 = Age of friend
 - 99 = Not applicable (No best friend identified)
- Gender: Sibling/best friend's gender accounts for disclosure of different secrets by participant (e.g., "My friend is a boy", "She is a girl and wouldn't get it", etc.)*
 - 1 = Not indicated
 - 2 = Gender of sibling
 - 3 = Gender of friend
 - 99 = Not applicable (No best friend identified)
- Lack of reciprocal: Lack of interactions between participant and sibling/best friend are based on mutual and egalitarian exchanges account for difference in secrets told. Examples include play and companionship (e.g., "I play more with my sister", "I go shopping at the mall with my friend", "My sibling and I spend a lot more time with each other", etc.)*
 - 1 = Not indicated
 - 2 = Lack of reciprocal with sibling/ Greater reciprocal with friend
 - 3 = Lack of reciprocal with friend/ Greater reciprocal with sibling
 - 99 = Not applicable (No best friend identified)
- Lack of complementary: Lack of interactions between participant and sibling/best friend are based on hierarchical exchanges with one person having more knowledge or capability than the other difference in secrets told. Examples include teaching, caretaking, and protecting (e.g., "He helps me*

with homework more than my friend”, “She teaches me new things all the time”, etc.)

- 1 = Not indicated
- 2 = Lack of complementary with sibling/ Greater of complementary with friend
- 3 = Lack of complementary with friend/ Greater of complementary with sibling
- 99 = Not applicable (No best friend identified)

v. Lack of availability: *Sibling/best friend’s presence and accessibility accounts for disclosure of different secrets by participant (e.g., “My friend is never there to talk to”, “I get to see my brother more and tell him more things”, etc.)*

- 1 = Availability not indicated
- 2 = Lack of availability of sibling/ Availability of friend
- 3 = Lack of availability of friend/ Availability of sibling
- 99 = Not applicable (No best friend identified)

vi. Lack of trust: *Participant characterizes sibling/best friend as someone he/she cannot trust, and may include lack of mutual trust between them (e.g., “I trust my friend with my secret not my brother”, “My brother will tell everyone my problems”, etc.)*

- 1 = Trust not indicated
- 2 = Distrusts sibling/ Trust friend more
- 3 = Distrusts friend/ Trust sibling more
- 99 = Not applicable (No best friend identified)

vii. Lack of interest: *Participant characterizes best friend/sibling as someone that is not concerned or interested with participant’s secrets (e.g., “My sister doesn’t really care about my secrets”, “My best friend really cares about my secrets”, etc.)*

- 1 = Not indicated
- 2 = Sibling does not care
- 3 = Friend does not care
- 99 = Not applicable (No best friend identified)

viii. Affection: *Participant characterizes sibling/best friend as expressing positive emotional and physical affect toward him/her (e.g., “She understands me”, “He loves me”, “She hugs me”, etc.)*

- 1 = Not indicated
- 2 = Affection of sibling
- 3 = Affection of friend
- 99 = Not applicable (No best friend identified)

ix. Personality: *Participant characterizes sibling/friend as having positive/negative personal attributes (e.g., “She is nice”, “He is smart”, “My sibling is a good person”, etc.)*

- 1 = Not indicated
- 2 = Personality of sibling
- 3 = Personality of friend

- 99 = Not applicable (No best friend identified)
- x. History: *Shared history and/or time participant and sibling/best friend have known each other account for disclosure of different secrets between them (e.g., “We’ve known each other since we were young”, “I have been friends with her for a long time”, etc.)*
 - 1 = Not indicated
 - 2 = History with sibling
 - 3 = History with friend
 - 99 = Not applicable (No best friend identified)
- xi. Other: *Reasons not applicable to any category*
 - 1 = Not indicated
 - 2 = Other
 - 99 = Not applicable (No best friend identified)

Question 4

A. Indicate if participant shares secrets with best friend

- 1 = No
- 2 = Yes

If Yes:

4a. Indicate topics of secrets participant tells best friend

- i. Family issues: *Information disclosed to best friend involves subject matter about individual family members and/or current or past events within the family and home (e.g., “I told her about my brother and me fighting”, “I told her my grandmother was sick”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does not disclose to best friend)
- ii. Academic/school issues: *Information disclosed to best friend involves subject matter about current or past events within school (e.g., “I told her about my high grade in math”, “I told her our teacher got mad yesterday”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does not disclose to best friend)
- iii. Friend issues: *Information disclosed to best friend involves subject matter about individual peers/friends and/or current or past events amongst them (e.g., “I told her about our friend moving”, “I told him Jake couldn’t go to the party”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does not disclose to best friend)
- iv. Interests in opposite sex: *Information disclosed to best friend involves subject matter about romantic interests, crushes, and/or relationships and/or current*

or past events within them (e.g., “I tell her the boys I like”, “I told her about my new boyfriend”, etc.)

- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does not disclose to best friend)
- v. Shared interests: *Information disclosed to best friend involves subject matter about their same interests or activities they engage in (e.g., “I talk to him about the Nintendo games we play”, “We talk about the books we both read”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does not disclose to best friend)
- vi. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does not disclose to best friend)

4b. Indicate if there are topics that participant shares only with best friend that he/she would not share with anyone else

- 1 = No
- 2 = Yes

4b. Indicate if there are some topics participant would not share with best friend

- 1 = No
- 2 = Yes

4c. Indicate how often participant shares secrets with best friend

- 1 = Not Often: *Participant rarely shares secrets with best friend (i.e., once in awhile)*
- 2 = Sometimes: *Participant usually shares secret secrets with best friend*
- 3 = Often: *Participant frequently shares secrets with best friend*
- 4 = Very Often: *Participant shares secrets with best friend everyday*

4d. Indicate how participant feels about sharing secrets with best friend

- 1 = Don't know
- 2 = Negative (e.g., “I feel sad”, “I feel bad”, “I don't like it”, etc.)
- 3 = Ambivalent: *Response indicates both/combo of positive and negative feelings*
- 4 = Positive (e.g., “I feel good”, “I feel fine”, “I feel relieved”, etc.)

If No:

4e. Indicate reason why participant does not tell secrets to best friend

- i. Age: *Best friend's age accounts for lack of disclosure by participant (e.g., “My friend is a little too young”, “He is older than me”, etc.)*
- 1 = Not indicated

- 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)
- ii. Availability: *Best friend's presence and accessibility accounts for lack of disclosure by participant (e.g., "My friend is not always there to talk to", "I don't get to see my friend too much", etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)
- iii. Lack of trust: *Participant characterizes best friend as someone he/she cannot trust, and may include a lack of mutual trust between them (e.g., "I don't really trust her", "My friend doesn't trusts me to keep his secrets", etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)
- iv. Discloses to others: *Participant chooses to disclose to other individuals that are not best friend. Examples include parent, teacher, sibling, cousin, etc. (e.g., "I tell my brother instead", "I go to my mom and tell her", etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)
- v. Lack of interest: *Participant characterizes best friend as someone that is not concerned or interested with participant's secrets (e.g., "She doesn't want to know any secrets", "He doesn't seem concerned my secrets", etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)
- vi. No secrets: *Participant has no secrets to disclose to best friend*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)
- vii. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (No best friend identified or does disclose to best friend)

4e. Indicate how participant feels about not sharing secrets/special thoughts with best friend

- 1 = Don't know

- 2 = Negative (e.g., “I feel sad”, “I feel bad”, “I don’t like it”, etc.)
- 3 = Ambivalent: Response indicates both or a combination of positive and negative feelings
- 4 = Positive (e.g., “I feel good”, “I feel fine”, “I feel relieved”, etc.)

Question 5

A. Indicate if best friend shares secrets with participant

- 1 = No
- 2 = Yes

If Yes:

5a. Indicate how often best friend shares secrets with participant

- 1 = Not Often: *Best friend rarely shares secrets with participant (i.e., once in awhile)*
- 2 = Sometimes: *Best friend usually shares secret secrets with participant*
- 3 = Often: *Best friend frequently shares secrets with participant*
- 4 = Very Often: *Best friend shares secrets with participant everyday*

5b. Indicate topics of secrets best friend tells participant

- Family issues: *Information disclosed to participant by best friend involves subject matter about individual family members and/or current or past events within the family and home (e.g., “She told me about her brother and her playing”, “He told me his dad wasn’t at home”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- Academic/school issues: *Information disclosed to participant by best friend involves subject matter about current or past events within school (e.g., “She told me about her science exam”, “He told me he had to go to the principal’s office”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- Friend issues: *Information disclosed to participant by best friend involves subject matter about individual peers/friends and/or current or past events amongst them (e.g., “He told me our friend was moving”, “She told me Jenna couldn’t go to the sleepover”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- Interests in opposite sex: *Information disclosed to best friend involves subject matter about romantic interests, crushes, and/or relationships and/or current or past events within them (e.g., “I tell her the boys I like”, “I told her about my new boyfriend”, etc.)*
 - 1 = Not indicated
 - 2 = Yes

- 99 = Not applicable (Does not disclose to participant)
- v. Shared interests: *Information disclosed to participant by best friend involves subject matter about their same interests or activities they engage in (e.g., “He talks to me about the Nintendo games we play”, “We talk about the books we both read”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- vi. Other: *Reasons not applicable to any category*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)

5c. Indicate how participant thinks best friend feels about sharing secrets with him/her

- 1 = Don’t know
- 2 = Negative (e.g., “He/she feels sad”, “He/she feels bad”, “He/she don’t like it”, etc.)
- 3 = Ambivalent: Response indicates both/combination of positive and negative feelings
- 4 = Positive (e.g., “He/she feels good”, “He/she feels fine”, “He/she feels relieved”, etc.)

If No:

5d. Indicate reason why participant thinks best friend does not tell him/her secrets

- i. Age: *Participant’s age accounts for lack of disclosure by best friend (e.g., “I am younger than my best friend”, “He is older than me”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)
- ii. Availability: *Participant’s presence and accessibility accounts for lack of disclosure by best friend (e.g., “I am always there to talk to my best friend”, “I don’t get to see my friend very often”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)
- iii. Lack of trust: *Participant thinks best friend characterizes him/her as someone best friend cannot trust, and may include a lack of mutual trust between them (e.g., “She don’t really trust her”, “He doesn’t trusts me to keep his secrets”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)
- iv. Discloses to others: *Best friend chooses to disclose to other individuals that are not the participant. Examples include parent, teacher, sibling, another*

peer/friend, etc. (e.g., “She tells her sister instead”, “He tells his other friend”, etc.)

- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)
- v. Lack of interest: *Participant characterizes best friend as someone that thinks participant is not concerned or interested with his/her secrets (e.g., “Maybe she thinks I don’t want to know any secrets”, “He doesn’t seem I will care about them”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)
- vi. No secrets: *Best friend no secrets to disclose to participant*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)
- vii. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Best friend does disclose)

5d. Indicate how participant thinks best friend feels about not sharing secrets/special thoughts with him/her

- 1 = Don’t know
- 2 = Negative (e.g., “He/she feels sad”, “He/she feels bad”, “He/she don’t like it”, etc.)
- 3 = Ambivalent: *Response indicates both/combination of positive and negative feelings*
- 4 = Positive (e.g., “He/she feels good”, “He/she feels fine”, “He/she feels relieved”, etc.)

Question 6

A. Indicate if participant shares secrets with sibling

- 1 = No
- 2 = Yes

If Yes:

6a. Indicate topics participant tells sibling

- i. Family issues: *Information disclosed to sibling involves subject matter about individual family members and/or current or past events within their family and home (e.g., “She told me my mom got mad at her today”, “I told her our brother had a surprise for dad”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to sibling)

- ii. Academic/school issues: *Information disclosed to sibling involves subject matter about current or past events within school (e.g., “I told her about my assignment in English”, “I told her our teacher got mad yesterday”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to sibling)
- iii. Friend issues: *Information disclosed to sibling involves subject matter about individual peers/friends and/or current or past events amongst them (e.g., “I told him about my friend’s new Nintendo game”, “I told him my best friend was having a birthday party”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to sibling)
- iv. Interests in opposite sex: *Information disclosed to best friend involves subject matter about romantic interests, crushes, and/or relationships and/or current or past events within them (e.g., “I tell her the boys I like”, “I told her about my new boyfriend”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to sibling)
- v. Shared interests: *Information disclosed to best friend involves subject matter about their same interests or activities they engage in (e.g., “I talk to her about the TV shows we watch”, “We talk about the games we both play”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to sibling)
- vi. Other: *Reasons not applicable to any category*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to sibling)

6b. Indicate if there are special topics participant shares only with his/her sibling that he/she wouldn't share with anyone else

- 1 = No
- 2 = Yes

6b. Indicate if there are some kinds of topics participant would not share with his/her sibling

- 1 = No
- 2 = Yes

6c. Indicate how often participant shares secrets with sibling

- 1 = Not Often: *Participant rarely shares secrets with sibling (i.e., once in awhile)*
- 2 = Sometimes: *Participant usually shares secret secrets with sibling*
- 3 = Often: *Participant frequently shares secrets with sibling*
- 4 = Very Often: *Participant shares secrets with sibling everyday*

6d. Indicate how participant feels about sharing secrets/special thoughts with sibling

- 1 = Don't know
- 2 = Negative (e.g., "I feel sad", "I feel bad", "I don't like it", etc.)
- 3 = Ambivalent: *Response indicates both/combination of positive and negative feelings*
- 4 = Positive (e.g., "I feel good", "I feel fine", "I feel relieved", etc.)

If No:

6e. Indicate reason why participant does not tell secrets to sibling

- Age: Sibling's age accounts for lack of disclosure by participant (e.g., "My brother is a little too young", "She is older than me", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- Gender: Sibling's gender accounts for lack of disclosure by participant (e.g., "We don't talk because she's a girl", "My brother is into boy things", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- Availability: Sibling's presence and accessibility accounts for lack of disclosure by participant (e.g., "My sister isn't usually there to talk to", "I get to see my friend more than my brother so I tell my friend more things", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- Lack of trust: Participant characterizes sibling as someone he/she cannot trust, and may include a lack of mutual trust between them (e.g., "I don't really trust her", "I don't trust him to keep my secrets", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- Discloses to others: Participant chooses to disclose to other individuals that are not sibling. Examples include parent, teacher, friend/peer, cousin, etc. (e.g., "I tell my dad instead", "I go to my friend to tell her stuff", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- Lack of interest: Participant characterizes sibling as someone that is not concerned or interested with participant's secrets (e.g., "She doesn't want to know any secrets", "He wouldn't listen if I told him", etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- No secrets: Participant has no secrets to disclose to sibling*
 - 1 = Not indicated

- 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)
- viii. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does disclose to sibling)

Question 7

A. Indicate if sibling shares secrets/special thoughts with participant

- 1 = No
- 2 = Yes

If Yes:

7a. Indicate how often sibling shares secrets with participant

- 1 = Not Often: *Sibling rarely shares secrets with participant (i.e., once in awhile)*
- 2 = Sometimes: *Sibling usually shares secret secrets with participant*
- 3 = Often: *Sibling frequently shares secrets with participant*
- 4 = Very Often: *Sibling shares secrets with participant everyday*

7b. Indicate topics of secrets sibling tells participant

- i. Family issues: *Information disclosed to participant by sibling involves subject matter about individual family members and/or current or past events within their family and home (e.g., “She told me she had a fight with my mom”, “He told me he broke one of our sister’s toys”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- ii. Academic/school issues: *Information disclosed to participant by sibling involves subject matter about current or past events within school (e.g., “She told me she did well on her test”, “He told me he started a new project in school”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- iii. Friend issues: *Information disclosed to participant by sibling involves subject matter about individual peers/friends and/or current or past events amongst them (e.g., “My brother told me about his friend’s new game”, “I told her I was invited to a friend’s party”, etc.)*
 - 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- iv. Interests in opposite sex: *Information disclosed to best friend involves subject matter about romantic interests, crushes, and/or relationships and/or current or past events within them (e.g., “I tell her the boys I like”, “I told her about my new boyfriend”, etc.)*
 - 1 = Not indicated

- 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- v. Shared interests: *Information disclosed to participant by sibling involves subject matter about their same interests or activities they engage in (e.g., “She talks to me our favorite bands”, “We talk about the books we both read”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)
- vi. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Does not disclose to participant)

7c. Indicate how participant thinks sibling feels about sharing secrets/special thoughts with him/her

- 1 = Don’t know
- 2 = Negative (e.g., “I feel sad”, “I feel bad”, “I don’t like it”, etc.)
- 3 = Ambivalent: *Response indicates both/combination of positive and negative feelings*
- 4 = Positive (e.g., “I feel good”, “I feel fine”, “I feel relieved”, etc.)

If No:

7d. Indicate reason why participant thinks sibling does not tell him/her secrets

- i. Age: *Participant’s age accounts for lack of disclosure by sibling (e.g., “I am so much younger”, “He is older than me”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- ii. Gender: *Participant’s gender accounts for lack of disclosure by participant (e.g., “He doesn’t really talk to me because I’m a girl”, “My brother is into boy things”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- iii. Availability: *Participant’s presence and accessibility accounts for lack of disclosure by sibling (e.g., “I am not really there to talk to my sister”, “I don’t get to see my brother”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- iv. Lack of trust: *Participant thinks sibling characterizes him/her as someone sibling cannot trust, and may include a lack of mutual trust between them (e.g., “She don’t really trust me”, “He doesn’t trusts me to keep his secrets”, etc.)*
- 1 = Not indicated

- 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- v. Discloses to others: *Sibling chooses to disclose to other individuals that are not the participant. Examples include parent, teacher, sibling, another friend/peer, etc. (e.g., “He tells her brother instead”, “She goes to her mom to tell her stuff”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- vi. Lack of interest: *Participant characterizes sibling as someone that thinks the participant is not concerned or interested with his/her secrets (e.g., “She doesn’t think I will care about any secrets”, “Maybe I don’t seem concerned about his secrets”, etc.)*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- vii. No secrets: *Sibling has no secrets to disclose to participant*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)
- viii. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes
 - 99 = Not applicable (Sibling does disclose)

Question 8

8a. Indicate if participant shares problems about his/her family with best friend

- 1 = No
- 2 = Yes
- Comment on examples

8b. Indicate if participant shares problems about friends/peers with best friend

- 1 = No
- 2 = Yes
- Comment on examples

8c. Indicate if participant shares problems about school with best friend

- 1 = No
- 2 = Yes
- Comment on examples

Question 9

9a. Indicate if best friend shares problems about his/her family with participant

- 1 = No
- 2 = Yes
- Comment on examples

9b. Indicate if best friend shares problems about friends/peers with participant

- 1 = No
- 2 = Yes
- Comment on examples

9c. Indicate if best friend shares problems about school with participant

- 1 = No
- 2 = Yes
- Comment on examples

Question 10

10a. Indicate if participant shares problems about the family with sibling

- 1 = No
- 2 = Yes
- Comment on examples

10b. Indicate if participant shares problems about friends/peers with sibling

- 1 = No
- 2 = Yes
- Comment on examples

10c. Indicate if participant shares problems about school with sibling

- 1 = No
- 2 = Yes
- Comment on examples

Question 11

11a. Indicate if sibling shares problems about the family with participant

- 1 = No
- 2 = Yes
- Comment on examples

11b. Indicate if sibling shares problems about friends/peers with participant

- 1 = No
- 2 = Yes
- Comment on examples

11c. Indicate if sibling shares problems about school with participant

- 1 = No
- 2 = Yes
- Comment on examples

Question 12

A. Indicate what type of friend participant thinks sibling is

- 1 = Don't know
- 2 = Not a friend
- 3 = Friend
- 4 = Good friend
- 5 = Best friend

B. Indicate reason why participant thinks sibling is a friend

- i. Reciprocal: *Interactions between participant and sibling are based on mutual and egalitarian exchanges. Examples include play and companionship (e.g., “We like playing together”, “We go shopping at the mall together”, “We don’t spend a lot of time with each other”, etc.)*
 - 1 = Not indicated
 - 2 = Yes (*i.e., positive reciprocal interactions*)
 - 3 = Negative/lack of reciprocal
- ii. Complementary: *Interactions between participant and sibling are based on hierarchical exchanges with one person having more knowledge or capability than the other. Examples include teaching, caretaking, and protecting (e.g., “He doesn’t help me with anything”, “She teaches me new things all the time”, etc.)*
 - 1 = Not indicated
 - 2 = Yes (*i.e., positive complementary interactions*)
 - 3 = Negative/lack of complementary
- iii. Personality: *Participant characterizes sibling as having positive or negative personal attributes (e.g., “She is nice”, “He is rude”, “My sibling is a good person”, etc.)*
 - 1 = Not indicated
 - 2 = Positive personality
 - 3 = Negative personality
- iv. Trust: *Participant characterizes sibling as someone he/she can or cannot trust, and may include mutual trust or lack of mutual trust between them (e.g., “I trust her with my toys”, “She doesn’t trust me to keep secrets”, etc.)*
 - 1 = Not indicated
 - 2 = Trusts
 - 3 = Lack of trust
- v. Affection: *Participant characterizes him/herself or his/her sibling as expressing positive or negative emotional and physical affect toward one another (e.g., “She understands me”, “He loves me”, “She irritates me”, etc.). Fights would be included in negative affection toward each other.*
 - 1 = Not indicated
 - 2 = Positive affection
 - 3 = Negative affection
- vi. Shared interests: *Participant and sibling may or may not have and/or engage in the same interests or activities (e.g., “We don’t like the same things”, “We like to play the same Nintendo games”, “She likes to read the same books”, etc.)*
 - 1 = Not indicated
 - 2 = Similar interests
 - 3 = Different interests
- vii. Self-disclosure: *Participant and sibling may or may not divulge personal information to one another (e.g., “I can tell her things I don’t tell anyone else”, “I don’t share stories with him”, etc.)*
 - 1 = Not indicated

- 2 = Self-discloses
 - 3 = Lack of self-disclosure
- viii. Age: *Siblings' ages accounts for friendship or lack of friendship with participant (e.g., "We're the closest in age", "My other sister is too old", etc.)*
- 1 = Not indicated
 - 2 = Yes
- ix. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes

Question 13

- A. Indicate what type of friend sibling thinks participant is
- 1 = Don't know
 - 2 = Not a friend
 - 3 = Friend
 - 4 = Good friend
 - 5 = Best friend
- B. Indicate reason participant thinks sibling considers him/her a friend
- i. Reciprocal: *Interactions between participant and sibling are based on mutual and egalitarian exchanges. Examples include play and companionship (e.g., "We like playing together", "We go shopping at the mall together", "We don't spend a lot of time with each other", etc.)*
- 1 = Not indicated
 - 2 = Yes (i.e., positive reciprocal interactions)
 - 3 = Negative/lack of reciprocal
- ii. Complementary: *Interactions between participant and sibling are based on hierarchical exchanges with one person having more knowledge or capability than the other. Examples include teaching, caretaking, and protecting (e.g., "She doesn't help me with anything", "She teaches me new things all the time", etc.)*
- 1 = Not indicated
 - 2 = Yes (i.e., positive complementary interactions)
 - 3 = Negative/lack of complementary
- iii. Personality: *Participant characterizes sibling as having positive or negative personal attributes (e.g., "She is nice", "He is mean", "My sibling is a good person", etc.)*
- 1 = Not indicated
 - 2 = Positive personality
 - 3 = Negative personality
- iv. Trust: *Participant characterizes sibling as someone he/she can or cannot trust, and may include mutual trust or lack of mutual trust between them (e.g., "I cannot trust her with my toys", "He trusts me to keep his secrets", etc.)*
- 1 = Not indicated
 - 2 = Trusts

- 3 = Lack of trust
- v. Affection: *Participant characterizes him/herself or his/her sibling as expressing positive or negative emotional and physical affect toward one another (e.g., “She understands me”, “He loves me”, “She irritates me”, etc.). Fights would be included in negative affection toward each other.*
- 1 = Not indicated
 - 2 = Positive affection
 - 3 = Negative affection
- vi. Shared interests: *Participant and sibling may or may not have and/or engage in the same interests or activities (e.g., “We don’t like the same things”, “We like to play the same Nintendo games”, “She likes to read the same books”, etc.)*
- 1 = Not indicated
 - 2 = Similar interests
 - 3 = Different interests
- vii. Self-disclosure: *Participant and sibling may or may not divulge personal information to one another (e.g., “I can tell her things I don’t tell anyone else”, “I don’t like to share stories with him”, etc.)*
- 1 = Not indicated
 - 2 = Self-discloses
 - 3 = Lack of self-disclosure
- viii. Age: *Siblings’ ages accounts for friendship or lack of friendship with participant (e.g., “We’re the closest in age”, “My other sister is too old”, etc.)*
- 1 = Not indicated
 - 2 = Yes
- ix. Other: *Reasons not applicable to any category*
- 1 = Not indicated
 - 2 = Yes