PREDICTORS OF MATCH DURATION IN A BIG SISTERS MENTORING PROGRAM

by

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ABSTRACT

As society becomes increasingly plagued with crime, poverty, violence, skyrocketing divorce rates and increasing rates of drug and alcohol abuse, the need to attend carefully to our youth is evident. At the forefront of youth preventative care over the past several decades has been the mentoring movement. The Big Brothers/Big Sisters (BB/BS) organization stands as a model of effective mentoring, representing the most long-standing, widespread and structured of these efforts. Research has demonstrated that BB/BS has a positive impact on youths involved in the program, including decreased drug and alcohol use, a reduction in violent behaviour, improved school attendance and expectations of school success, and improved relationships with parents. However, these positive effects are contingent upon the formation of longstanding and meaningful relationships with youths. Unfortunately, national mentoring agencies such as Big Brothers/Big Sisters report that approximately 55% of matches terminate early and, moreover, that these premature terminations can lead to further declines in functioning for at-risk youth. The current archival study represents the first attempt to predict match duration on the basis of information available at match onset. File information obtained from multiple sources were examined for 196 Big and Little Sister matches within a Big Sisters affiliate of the national BB/BS agency. Results suggests that while the limited predictive accuracy of models does not warrant screening out potential volunteers, it is possible to enhance match formation as well as identify matches in need of extra supervision and support. In particular, attending to practical requests made by Big and Little Sisters (e.g., desire for a Big Sister with access to a vehicle; desire for a Little Sister within a particular age range) and matching dyads in terms of energy levels may prove simple and beneficial tools in matching. Factors which increased the risk of premature match termination included elements of the Little Sister's family background (i.e., family history of illness or violence, recent move), lack of stability in Big Sister's housing and employment, and lower Big Sister educational achievement.

Keywords: mentoring, Big Sisters, at-risk youth

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Introduction

In the late 1980s and over the past decade, mentoring programs targeted toward disadvantaged youth have seen a rapid growth, as middle class adults struggle to make a difference in what is perceived as an increasingly problem-ridden society (Freedman, 1992). Mentoring programs sprang up across North America, ranging in size from nationally based organizations to local initiatives serving only a select few youths. However, in the zeal and attention of this early movement, little was known about the effectiveness of such programs. At times mentoring was touted as an overly simplistic cure-all to the social ills facing society today. Some argued that little was actually known about the process of mentoring, the struggles and challenges faced by mentors and, perhaps most importantly, how, why, and in which way mentoring serves as a protective factor for youths at risk (e.g., Freedman, 1992). However, a growing body of research supports the effectiveness of mentoring. From the resiliency literature which emphasizes the protective role played by supportive adults (e.g., Cowen & Work, 1988; Luthar & Zigler, 1991; Rutter, 1986), to systematic evaluations of well recognized mentoring agencies such as BB/BS, the research suggests that mentoring can indeed have a positive impact on youths. Wide-ranging benefits of mentoring include decreased substance use, improvements in relationships with peers and parents, and enhanced school performance (e.g., Grossman & Tierney, 1998).

This dissertation first summarizes this body of research with a particular focus on what is arguably the most long standing and stable mentoring organization in North America, Big Brothers and Big Sisters. As the benefits of mentoring have been well established in the literature, the current study turns its attention to ways in which to enable mentoring agencies to enhance the matching process and assist with the identification of at-

risk matches[1].The current study examines information available at match onset within a female mentoring organization so as to identify characteristics of volunteer mentors and mentees that predict match duration and explore factors leading to premature match failure. Such information can serve to assist agency staff in initial selection processes and help them identify points and paths of intervention for problematic matches.

What is a Mentor?

A recent national survey found that nearly one in three American adults report having served as a mentor[2] during his or her lifetime (McLearn, Colasanto, Schoen, & Shapiro, 1999). The term *mentor* dates back many years, with its origin in Greek mythology. Mentor was the name of the loyal friend of Odysseus and the individual in whom Odysseus entrusted the care of his son Telemachus when he left for the Trojan War. The word has since come to mean a loyal, wise and trusted teacher and friend (Dondero, 1997). Einolf's (1995) definition is more specific, referring to an individual who accepts the responsibility, over a specified period of time, for guiding another to mature, develop competencies, and reach specific goals. Mentors have been viewed as filling any number of roles including enabler, believer, teacher, supporter, role model, challenger, and companion (Hendry, Roberts, Glendinning, & Coleman, 1992; Rogers & Taylor, 1997). Erikson's developmental model has also been used to examine mentoring within a broader context, as a process which brings about developmental change (Haensley & Parsons, 1993; Healy & Welchert, 1990). In this model a mentor can serve as a channel through which youths obtain guidance and wisdom, a catalyst for growth, and a protective shield to filter out inhibiting factors as youths progress through key life struggles. Healy and Welchert (1990) focus on two key factors in mentoring relationships, stating that both mentor and mentee must experience the relationship as a reciprocal venture and that each party must increase the esteem of the other. The mentoring relationship as a whole is characterized by a special bond of mutual commitment, respect, loyalty and trust. Mentoring relationships can be further differentiated

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[1] The term match is used throughout this paper to refer to Big Sister and Little Sister dyads. This term does not imply that all Big and Little Sister pairs are indeed perfectly "matched" but rather, has been adopted because it is the term utilized widely within Big Brother and Big Sister agencies as well as within the research literature. Indeed, one of the goals of the current study is to investigate whether various elements of the matching process are important in predicting the duration of Big and Little Sister relationships.

[2] In this particular study the authors defined mentoring as, "It usually involves spending time, one-on-one, with a particular child on a fairly regular basis over a period of time" (McLearn et al., 1999, p.68).

in terms of their intensity, with the literature frequently identifying primary and secondary relationships. Primary mentoring relationships typically involve a higher degree of attachment, trust, importance, and enjoyment than secondary relationships, which tend to be more emotionally distant, though supportive (McPartland & Nettles, 1991). The mission statement of Big Sisters of BC Lower Mainland (the focus group of this research) reads as follows: "Big Sisters is committed to enhancing the confidence, self-esteem and well-being of children through supportive friendships with caring women" (*BS handout*). The underlying principle of this agency is that children need acceptance, understanding and respect as individuals and can benefit from a supportive friendship with a caring adult. Thus, while some mentoring agencies advocate more prescriptive relationships (e.g., teacher, challenger), Big Sisters clearly identifies the focus of the mentoring relationship as developmental in nature. Consequently, for the purpose of this research, Aiello and Gatewood's (1989) broader definition of mentoring will be adopted, (i.e., a complex and meaningful relationship which purports to meet important developmental needs for both parties.) Specifically, this research focuses on primary mentoring relationships in female dyads established through the mentoring agency, Big Sisters. As such, the focus of this research is on formal mentoring as opposed to informal or natural mentors.

Understanding Mentoring

While mentoring has broad theoretical underpinnings, social learning models, self psychology, and attachment theory appear most useful in conceptualizing its efficacy. In support of the former, Galbo's (1984) review of the literature examining adolescent's perceptions of significant adults found that adults tend to influence adolescents through the information they provide – both by being models and definers. Galbo also argues that as self-concept, particularly during adolescence, is primarily a reflection of others' views, it is amenable to influence through a mentoring relationship. Characteristics of the adults that are significant to adolescents during this period include availability, honesty, trustworthiness, helpfulness, understanding, frequent interaction with youth, ability to provide useful information, and willingness to treat youths as equals (Galbo, 1986). Zagummy (1993) also argues in favour of social learning theory in explaining the impact of mentoring, contending that the mentee learns appropriate behaviour by observing the consequences of the mentor's

behaviour. Mentors thus serve as models for mentees. As reinforcement is a far more efficient learning strategy than punishment and, presumably, mentors engage in behaviours that warrant reinforcement, this becomes a highly effective learning environment for youths. In an evaluation of Project Support, a US federally funded mentoring and outdoor program for at-risk youths, staff consistently noted the importance of modelling positive behaviours. Specifically mentors felt they had demonstrated a variety of skills to youths including healthy living habits, conflict resolution, communication and problem-solving (Hurley & Lustbader, 1997). From a self psychology perspective (e.g., Kohut & Elson, 1987), our relationships with others stem from two sequential steps in self development. Youth first develop self esteem and foster skills by receiving support, attention and praise from idealized others and from emulating them. Higher self esteem and greater competence subsequently allows them to connect to others around them and to their environments. As such, the mentor may act as an idealized other for the child and provide the feedback necessary to foster the development of self and connectedness with the world. Murphy and Moriarty (1976) contend that identification with a resilient model is paramount to the development of resiliency, a factor related to positive outcomes for at-risk youth. A study conducted by Lacković-Grgin and Deković (1990) further contributes to our understanding of this connection. These authors examined the relationship between adolescents' self perceptions and their ideas about how they are seen by important others (i.e., parents, teachers and friends). Lacković-Grgin and Deković report that youth's perceptions about how they are evaluated by others play an important role in the development of self esteem. Moreover, for females, these perceptions seem to become even more relevant in later adolescence.

Attachment theory emphasizes the importance of the caregiver-child relationship for future relationships and functioning (Bowlby, 1988). Early attachment can influence subsequent behaviour by forming a template for future relationships and influencing the extent to which children feel confident in exploring their environments (Paterson & Moran, 1988). From an attachment perspective, mentors can synthesize characteristics of the parent-child relationship and peer support without being either. Supportive relationships can serve to change children's perspectives on human relationships as a child's internal model represents not only early attachment experiences but also the quality and significance of recent and current relationships (Cavell & Hughes, 2000). Interestingly, Rodenhauser (2000)

contends that attachment and relationships play an even more central role for women in both identity formation and conception of developmental maturity, perhaps relegating even greater importance to mentoring for young women.

Research from Campbell and O'Neill (1985) within a Canadian Big Brothers/Big Sisters agency sheds further light on the mechanism of support within the mentoring relationship. These authors report that single mothers of children who were matched with an adult mentor demonstrated personal benefits in well being and social adjustment as compared to mothers of waiting-list controls. Thus, it is likely that mentors not only have a direct impact on youths through the establishment of attachment relationships, the modelling of prosocial behaviour, and fostering resiliency, but that mentors may indirectly benefit youths through enabling parents to better fulfil these roles. Certainly, the literature suggests that parental adjustment and availability of social supports for parents predict children's adjustment (e.g., Luthar & Zigler, 1991).

A large scale longitudinal study (the Add Health Study) conducted in the US in 1995 and 1996 revealed that many of today's adolescents are at risk for unhealthy behaviours (Blum and Rinehart, 1997; Resnick, Bearman, & Blum, 1997). For example, these authors noted that, over the previous year, 9% of adolescents had thought about suicide, between 5-10% had committed a violent act, over one quarter of students reported having tried marijuana, almost 20% reported drinking alcohol monthly, and 49% of older teens reported having had sexual intercourse. Canadian surveys (e.g., the National Longitudinal Survey of Children and Youth – NLSCY; Canadian Community Health Survey - CCHS) reveal similar results. In 2003, an estimated 28% of 15- to 17-year-olds reported having had sexual intercourse, with 22% of this sample reporting unprotected sexual activity. Rates of alcohol and drug use among Canadian youth are also high, with 66% of 15 year olds reporting past alcohol use and 38% reporting having tried marijuana. The NLSCY data also revealed strong correlations between peer behaviour, school performance and youths' decisions to use alcohol and drugs (Statistics Canada, 2004). Youths who enter mentoring programs typically stem from single-parent households and are often victims of poverty and/or abuse. As a population they can be described as "at risk" for a constellation of factors including involvement in antisocial activities, substance abuse, and premature termination of school. Consequently, it is important to address the role mentoring plays for disadvantaged youths.

It is not clear whether mentors serve primarily to buffer individuals from the potentially pathogenic influence of stressful events, or impact positively regardless of the situational context. Cowen and Work (1988) contend that stressors and negative life-experiences predict maladjustment in kids, with increasing numbers of negative events worsening the impact. However the strength of the individual's support system can moderate this effect. Rutter (1986) argues that social support buffers the impact of stressors in extreme situations and suggests that the greater the adversity, the more important will be the role of protective factors in shaping resilience and outcome. Einolf (1995) discussed the role of Social Capital Theory in explaining the impact of mentoring relationships. Einolf contends that the presence of positive relationships within the family and community influence the child's human capital (or that which makes them able to successfully adapt to their environment). Mentors compensate at-risk children by enabling them to develop human and social capital. This is similar to a comprehensive model of coping and competence proposed by Blechman and her colleagues (Blechman, Prinz, & Dumas, 1995; Blechman, 1996). These authors define mentally healthy individuals as those who are relatively successful at coping prosocially with challenges. In their model, an individual's coping response not only determines outcomes but also influences future competence and exposure to future challenges. High risk youths are more likely to face uncontrollable challenges and are less prepared to act prosocially. As a result, high-risk youths make more antisocial choices and increase risk by decreasing self-esteem, suffering more adverse outcomes, alienating themselves from good peers, increasing affiliation with negative peers, and increasing propensity for future antisocial and asocial coping. The authors propose that through enabling individuals to respond more prosocially we can decrease reliance on antisocial or asocial coping and thereby decrease risk. Further, increasing prosocial coping should increase moral reasoning and social reputation, change the ways in which youths view themselves, and decrease depressive symptoms and alcohol use. These facets would, in turn, impact the youth's future risk of encountering risk factors and challenges. Given that mentors model prosocial coping and offer support, encouragement and companionship to youths, they should, in theory, increase prosocial coping among at-risk youths. Rhodes (1994) agrees that mentors provide children with a representation of their efficacy and a belief in their ability to exert control over frequently chaotic environments. Mentors can contribute directly to the mentee's sense of stability and self-worth and can intervene between relationship problems

and distress by impacting appraisal of problems and use of support (Rhodes, Ebert, & Fischer, 1992). Cohen and Wills (1985) argue that both effects are found, with mentoring providing support for at-risk and vulnerable youths, as well as bolstering the self-esteem and competence of youths who are generally healthy. Davidson, Redner, Blakely, Mitchell, & Emshoff's (1987) research on relationship and activity based programs designed to divert juvenile delinquents from the criminal justice system concluded that the effectiveness of such programs in reducing recidivism is tied to the provision of support systems and the reduction of labelling as well as engagement in activities that allow for skill building.

In so far as mentoring can be of particular benefit in fostering resilience for at-risk youth, disrupted mentoring relationships, theoretically, should result in greater difficulties for this population. Mentoring relationships that terminate prematurely may lead to a number of negative effects. Early terminations may serve as models of ineffective coping, thus reinforcing reliance on antisocial and asocial coping. Blechman (1996) argues that the use of such coping strategies increases the likelihood that a youth will encounter further adverse events and associate with negative peers, potentially creating a steady downward spiral. Premature termination of a mentoring relationship also results in a loss of support for at-risk youths who, by definition, face more daily challenges than their healthy peers. To the extent that mentoring relationships serve important attachment roles, premature terminations may strengthen youths' negative templates of human relationships, having a negative impact on confidence, sociability, competence, and adaptiveness (Paterson & Moran, 1988). These youths may lack the requisite trust to enter meaningful relationships in the future. Cowen and Work (1988) contend that stressors and negative life-experiences have a cumulative effect in predicting maladjustment in kids. At the very least, premature termination of a mentoring relationship is yet another negative life-experience to add to what is, in all probability, an extensive list.

History of Big Sisters/Big Brothers

Big Brothers/ Big Sisters organizations had their roots in an appeal put forth by Ernest Coulter in 1904 who, after witnessing the abject poverty and neglect among youth brought before a New York court, appealed to a Men's Club for assistance. In his words (Freedman, 1992, p. 8):

> There is only one possible way to save that youngster, and that is to have some earnest, true man volunteer to be his big brother, to look after him, help him to do right, make the little chap feel that there is at least one human being in this great city who takes an interest in him; who cares whether he lives or dies.

Although these initial efforts met with limited success, the BB/BS movement had been borne and quickly took root. In 1921 the first BB/BS federation was formed and standards were put in place for mentoring relationships (Freedman, 1992). Today, thousands of children across Canada are served through Big Brothers and Big Sisters agencies. Big Brothers/Big Sisters provides a notable contrast to many of the more recently developed mentoring programs in that it has had a lengthy history characterized by strict guidelines for the establishment and support of mentoring relationships with at-risk populations. As there exists a great deal of consistency across agencies, BB/BS provides an excellent research model to examine structured mentoring programs for youths.

RESEARCH ON MENTORING ORGANIZATIONS

As this dissertation is anchored in the assumption that mentoring agencies provide tangible benefits for youths at-risk, the following sections strive to synthesize all relevant published research on mentoring initiatives targeted to disadvantaged youth, with a particular focus on BB/BS organizations. When deemed relevant, research with a broader focus on mentoring is also reported (e.g., studies examining corporate mentoring, intergenerational mentoring, mentoring within medical schools and university settings), though no effort has been made to examine all such literature.

Is Mentoring Effective?

Not surprisingly, those intimately involved in the mentoring initiative are quick to laud its effectiveness. For example, DuBois and Neville (1997) report that 82% of mentors state that the relationship had been of at least moderate benefit to youths. Similarly, a national survey of over 1500 adult mentors in the United States found that 85% believed they had been helpful in alleviating at least one problem for the youth they had mentored (McLearn et al., 1999). In an alternate approach to evaluation, Frecknall and Luks' (1992) study of parents' perceptions of the Big-Little match revealed that the majority of parents said their children improved on some aspect of attitudes/behaviour since enrolment in the program. In fact, 63% of parents reported that their children had "greatly improved." Fortunately, it is also the case that more controlled program evaluations support these claims (e.g., Grossman & Tierney, 1998). A recent meta-analysis of the mentoring literature noted that mentored youths showed consistently positive, though moderate, effects in the areas of emotional/psychological well-being, behaviour, social competence, schooling and employment (Dubois, Holloway, Valentine, & Cooper, 2002). The following sections summarize outcome research in this area.

School-Attendance and Performance

Research indicates that many parents feel that their children demonstrate academic improvements as a result of contact with mentors, with 49% identifying better school attendance and 47% identifying an increase in grades (Frecknall & Luks, 1992). Mentors themselves also frequently report having a beneficial impact on youths with respect to school attendance, grades, and school behaviour (McLearn et al., 1999). Promisingly, more objective evaluations support these findings. To date, Grossman and Tierney (1998) have conducted perhaps the most comprehensive examination of the Big Brothers/Big Sisters program. These authors examined 1138 youths between the ages of 10 and 16 involved in eight BB/BS agencies across the United States, using a random assignment evaluation design with a waiting list control. In addition to demographic information, the authors utilized Harter's (1985) scale of Perceived Scholastic Competence and measures of school attendance and grades. The results of an 18 month follow-up revealed that matched Littles[3] showed significant improvements in school attendance, skipping an average of 52% fewer days. Youths involved in mentoring relationships also reported slightly improved grades, an effect that was even stronger for girls. Further, involvement in the program increased Littles' expectations of school success. Other researchers have found similar results, noting positive changes in school attendance and behaviour as well as expectancy of school success (Edmondson, Holman, & Marshall, 1984) and positive attitudes towards school, elders and the future (e.g., Karcher, 2005; Rogers & Taylor, 1997).

A number of factors appear to mediate the extent to which mentoring positively impacts school success. Most importantly, effectively mentored youths and those who self report strong matches demonstrate greater decreases in absenteeism from school and lower dropout rates (Slicker & Palmer, 1993; Taylor, LoSciuto, Fox, Hilbert, & Sonkowsky, 1999). Similarly, youths who were involved in mentoring relationships that lasted longer than 12 months and those who were in frequent contact with their mentors felt more confident about their schoolwork, skipped school less often, and had higher grades. Youth's perceptions of closeness with mentors were also related to success in school (Grossman & Johnson, 1999). Additionally, involvement of parents in the mentoring relationship was

[3] The terms "Littles" and "Bigs" will be used throughout this paper to represent "Little Sisters" and "Big Sisters" respectively.

advantageous, with programs that specifically include parents being more likely to result in improved grades, better behaviour in classrooms and an increased sense of personal esteem and competency in school (Aiello & Gatewood, 1989).

Not all research has demonstrated positive scholastic outcomes for youths involved in mentoring programs. For example, Roberts and Cotton (1995) found no impact for a mentoring program that aimed to provide high school students with advice and motivation as well as helping them to set goals and evaluate academic performance. However, several factors might account for the absence of effects including the minimalist approach to mentoring (i.e., one hour/week), the short follow-up period (i.e., one month), and the prescriptive focus of the program. As will be discussed in depth in later sections, these factors are consistently tied to an absence of effects. Additionally, it is unlikely that mentoring will impact all aspects of academic success. For example, Tierney, Grossman, and Resch (1995) failed to find improvement in weekly hours of homework, weekly hours of reading or the extent to which children valued school. A study conducted by Abbott, Meredith, Self-Kelly, and Davis (1997) which examined self competence, school performance and emotional and social problems among 8-14 year old boys from father-absent households found no significant differences between mentored and non-mentored youths after a period of 12-18 months. The authors caution however that their small sample size (n = 44) and the nature of the variables they were investigating may have contributed to the lack of significant effects. Specifically, one might expect that improvements in such areas as GPA, self-competence, and behaviour would only be evident after a longer period. Importantly, a recent meta-analysis of the mentoring literature did reveal a moderate but significant positive impact of mentoring for school competence and in the academic/educational realm (Dubois et al., 2002).

With respect to which youths benefit most from mentoring interventions, the research has produced inconsistent results. In their investigation of Project RAISE, a community program which provides support to at-risk youths through the provision of advocates and one-to-one mentors, McPartland and Nettles (1991) found that youths who experience particular difficulty in the educational realm may benefit less from mentoring interventions. The authors conclude that such youths may require more direct and specific interventions in addition to mentoring. On the other hand, Grossman and Johnson's (1999)

evaluation of two mentoring programs (i.e., BB/BS and Sponsor a Scholar –SAS) found that mentoring had the greatest impact on those who were initially functioning at a lower achievement level and had minimal impact on high functioning individuals. For those in the former group, mentoring increased school attendance, GPA and later college enrolment as well as decreasing the chances of drug use. Among youths with low levels of family support, mentored youths were more likely to have a higher GPA and were more likely to enrol in college. Those with moderate levels of family support were also more likely to enrol in college if they were mentored. On the other hand, youths who came from highly supportive families did not appear to be impacted by mentoring with respect to school performance. Perhaps reconciling these differences, a meta-analysis conducted by Dubois and colleagues (2002) reported greater effect sizes for youths characterized as at-risk from an environmental perspective (e.g., low socioeconomic status) and note less positive impact when youths are referred solely on the basis of individual-level risks (e.g., academic problems). However, these authors report that even youths referred for individual risk factors can demonstrate a positive outcome when programs adhere strongly to standards of best practice and involve trained mentors. Moreover, youths who demonstrate both individual and environmental risk factors showed the greatest positive impact from their involvement in mentoring. The authors hypothesize that the presence of environmental risks may make it less likely that mentors attribute relationship problems to the youths' personal deficits or lack of motivation and decrease the likelihood of negative feelings toward youths. Thus, it would seem that youths who are already demonstrating significant personal difficulties can also benefit from mentoring programs providing that mentors are offered substantial program support and are able to depersonalize any early difficulties in the relationship.

Behavioural Problems

Youths who come into contact with mentoring agencies are most frequently referred because they are deemed to be "at-risk."[4] It is hoped that affiliation with a mentor will reduce the risk status of such youths. Indeed, Frecknall and Luks' (1992) study of parents' perceptions of the Big-Little match revealed that the majority of parents said their children improved in some aspect of attitudes/behaviour since enrolment in program, with 58%

reporting fewer incidences of getting into trouble, and 60% identifying an increased sense of responsibility. Grossman and Tierney's (1998) comprehensive examination of the Big Brothers/Big Sisters program also revealed some direct advantages to youths in this realm. Specifically, Littles who had been matched for 12 months demonstrated 32% less hitting behaviour. On the other hand, the authors found no effects of matching with respect to decreased involvement in property damage or stealing. It is possible that mentoring will have no impact on more serious criminal involvement by youths. Alternatively, it seems plausible that youths who are engaging in such activities will take longer to respond to the potential benefits of mentoring. A meta-analysis by Dubois et al. (2002) noted that mentored youths were less likely to engage in high-risk/problem behaviour.

Relationships with Parents and Peers

Frecknall and Luks' (1992) study of parents' perceptions of the Big-Little match revealed that the majority of parents said their children improved in some aspect of attitudes/behaviour since enrolment in the program. Specifically, they report that 55% of parents felt family relationships had improved and 70% reported improved peer relations. Interestingly, one national survey of adult mentors suggests that mentors actually reported relatively less success with youths in terms of enhancing strained family relationships, with only 35% of adults feeling they had been of benefit in this regard (McLearn et al., 1999). On the other hand, more specific agency based studies report more positive perceptions of change. For example, Edmondson et al. (1984) surveyed parents and volunteer mentors to examine the impact of involvement in BB/BS. These authors note that both volunteers and parents reported positive changes in mentored youths, specifically citing improvement in sibling relationships and positive changes in home behaviour. Similarly, Karcher (2005) found that participation in a six month school-based mentoring program predicted more positive attitudes and increased connectedness to parents. Grossman and Tierney's (1998) comprehensive study of BB/BS agencies also addressed this issue. Specifically, these authors administered the Inventory of Parent and Peer Attachment (IPPA) (Armsden & Greenberg, 1987), and Features of Children's Friendship battery (Berndt & Perry, 1986) at baseline and at an 18 month follow up. The authors report that developing a mentoring relationship

[4] "At-risk" is a catch all phrase, capturing risk for substance abuse, behavioural problems, early pregnancy, early termination

appeared to increase Littles' trust in parents and decreased lying to parents. Matched Littles were also higher in emotional peer support than the control group youths. However, no differences were found with respect to feelings of alienation and communication of anger within families of matched Littles (Tierney et al., 1995). Other research has demonstrated that adolescent boys in long-term stable mentoring matches were less likely to experience feelings of parental rejection (Saintonge, Achille, & Lachance, 1998). Dubois et al.'s (2002) analysis also suggested a positive impact for mentoring on social competence across the research studies they reviewed. Finally, in a more specific investigation, Taylor (1982) examined how Bigs, Littles, and parents felt about the impact of BB/BS mentors on children who had been through a divorce. Parents were generally pleased with the mentoring relationship and reported changes within their children, though admittedly they were not certain whether these could be attributed to the match. Parents also welcomed the additional help and the presence of a role model for their child. Bigs generally felt positive about their experiences and saw improvements in the child's behaviour. Children reported that they liked having a friend and an opportunity to engage in activities away from home.

Drugs and Alcohol Use

Grossman and Tierney (1998) report that Littles who were matched were 45.8% less likely to start using illegal drugs and 27.4% less likely to start using alcohol during the period of the study. The effects were even stronger for minority LS, who were less than half as likely to start using alcohol. Youths who were in frequent contact with their mentors and felt close to mentors demonstrated an even lower likelihood of drug and alcohol use (Grossman & Johnson, 1999). Later analyses, focusing on 928 youth from Grossman and Tierney's original sample, found that mentoring decreased the frequency of substance use only for those youths who remained matched for 12 months or longer (Rhodes, Reddy, & Grossman, 2005). These authors further report that the positive impact of mentoring on decreased risk of substance use was partially mediated by improved parental relationships. Such findings have been replicated among youths exposed to intergenerational mentoring. In several studies, youths who were mentored by much older adults tended to react well to situations involving drug use, demonstrated more knowledge about drugs, and were less likely to

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of school, criminal involvement, abuse, smoking, running away from home, etc.

decide to use drugs during the period of the study (Rogers & Taylor, 1997; Taylor et al., 1999). As stated earlier, a meta-analysis conducted by Dubois et al. (2002) also noted positive effects for mentored youths with respect to high-risk/problem behaviour.

Self-Worth and Well-Being

Although parents of mentored youths often cite enhanced self-esteem as a result of the match (e.g., Frecknall & Luks, 1992), research examining the actual impact of mentoring on self esteem and feelings of self worth has shown mixed results. Some researchers report improvements in well-being as a function of mentoring. For example, Edmondson et al. (1984) found that single-parent boys between the ages of 9 and 12 who formed relationships with surrogate role models demonstrated positive changes in self-worth. Rogers and Taylor (1997) also report that intergenerational mentoring increased feelings of well-being, improved reactions to stress and anxiety, reduced feelings of sadness or loneliness, and improved youths' sense of self-worth. Turner and Scherman (1996) report that boys who had been matched for a minimum of six months rated themselves higher on physical attractiveness and popularity and lower on anxiety than unmatched youths. Rhodes et al. (1992) studied young mothers' use of natural mentors[5] and found that individuals with mentors were less depressed and more able to benefit from social networks.

On the other hand, a number of researchers have found no improvements in self-esteem after a year of matching (e.g., Hines, 1988). Hines utilized a waiting list control design to determine whether mentoring enhanced the self concept of youths and mentors after a period of one year. Interestingly, although no significant difference was found between matched and unmatched youths, adult male mentors demonstrated a significant increase in self-concept over the period of the study. Abbott et al. (1997) also reported little positive change in the self-perception of boys from mother-headed households after 12-18 months of mentoring. Reporting on the extensive BB/BS data, Grossman and Tierney (1998) state that mentored youths showed no significant improvements on measures of global self-worth, social acceptance or self-confidence at the end of an 18 month study period. However, a subsection of these data, focusing specifically on youths involved in relative and nonrelative foster care, helps to clarify the seemingly contradictory literature. Rhodes,

Haight, and Briggs (1999) report that foster children were more likely to show improvements in peer prosocial support and self-esteem enhancement than matched controls. Breaking down these findings further, the authors note that children in relative foster care showed improvement across these variables while those in nonrelative foster care showed a slight decrease. More notably, all foster children who were not matched showed a decrease in self esteem and peer prosocial support over time, a finding that was particularly true of the nonrelative foster group. Rhodes et al. (1999) conclude that:

> In the absence of intervention, foster youths may be at heightened risk for alienation from peers....These findings highlight the particular vulnerabilities of foster youth and underscore the important role that mentors can play in attenuating and, in the case of relative foster youth, reversing the interpersonal problems that may be associated with foster placement and the transition into adolescence (p.197).

The research seems to suggest that one might expect improvements in self-esteem for youths who represent the most vulnerable groups and/or that mentoring may protect at-risk youths from further decline in their feelings of self-worth. It is also possible that gains in self-esteem will only truly be evident as mentored children move into adulthood. O'Sullivan's (1991) retrospective examination of the relationship between childhood mentors and resiliency in a particular at-risk group lends support to this argument. In this study, adult children of alcoholics (now between the ages of 25-65), completed a measure of resiliency, measures of substance abuse, and a questionnaire developed specifically for the study pertaining to early life events (including information on composition of family of origin, parental alcohol use, and availability of mentors). In general, adults who reported having a childhood mentor had a significantly higher level of functioning; scoring higher on internal locus of control, self-actualized value, sensitivity to one's needs and wants, spontaneity, self-regard, and self-acceptance, as well as reporting a greater capacity for intimate contact. The authors suggest that mentoring may contribute to the ability of children to trust themselves and others, may provide healthy role-models, allow kids to detach from difficulties in the home, provide a place of refuge, and provide affirmation and acknowledgement of the child as a valued human being. Thus, it seems that mentoring relationships can serve to

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[5] Natural mentors refer to mentoring relationships which occur outside the auspices of mentoring agencies.

counterbalance distorted relationships at home, allowing at-risk youths to overcome obstacles as they move into adulthood.

Characteristics of Successful and Unsuccessful Matches

Although research has consistently demonstrated that mentoring can play an important protective role for youths at risk, these benefits appear contingent on the presence of various factors. Specifically, mentoring relationships that are characterized by lengthy duration, frequent contact, perceptions of closeness, and a sense of trust are related to positive outcomes for youths (e.g., DuBois & Neville, 1997; Dubois et al., 2002). Additionally, relationships that have a developmental focus (Morrow & Styles, 1995), and those that include parents are more likely to achieve desired results (e.g., Taylor et al., 1999). The flip side, however, is that mentoring relationships which terminate prematurely can lead to negative outcomes for youths, including significant declines in global self-worth and scholastic competence as well as increased alcohol use (Grossman & Rhodes, 2002). The following sections explore those factors that are key to the formation of meaningful mentoring relationships as well as factors related to relationship failure. Although some of these have been extensively studied, there remain large gaps in our knowledge. Most notably, little work has been done to identify factors existent at the onset of the mentoring relationship that might predict problematic matches and/or early termination. Where such work does exist, the focus has tended to be on static individual predictors as opposed to more clinical or dynamic variables (e.g., Bigs' peer relationships) or practical match variables (e.g., fulfilling specific match requests made by Big and Little). The present study sought to bridge this gap in the literature. It is hoped that mentoring agencies armed with this information will be in a solid position to establish long standing mentoring relationships and prevent further harm to the youths they serve.

Demographic Characteristics of Mentors and Mentees

In their meta-analysis of mentoring research, Dubois et al. (2002) noted that age, gender and ethnicity did not seem to moderate outcome effect sizes. In examining predictors of match duration, Grossman and Rhodes (2002) also failed to find a significant effect for gender and ethnicity provided that interests were the primary matching criteria. On the other

hand, Grossman and Rhodes (2002) reported that volunteers with higher incomes tended to be involved in matches that lasted longer. These authors also report a significant effect for mentee age, with matches of mentees between the ages of 13-16 being 65% more likely to break up than those of 10-12 year olds. Grossman and Rhodes note that the age and marital status of the mentor were also important predictors of match duration. As compared to 18-25 year old mentors, unmarried mentors between the ages of 26-30 were 65% less likely to terminate each month while married mentors of the same age were 86% more likely to terminate each month. However, the authors note that relationship quality impacted this correlation in that if mentors were able to form meaningful relationships with mentees, the effect of marital status was reduced. In exploring these variables, it is important to attend to the manner in which outcome has been evaluated. For example, Parra, Dubois, Neville, and Pugh-Lilly (2002) reported that age predicted mentor perceptions of match outcome, with older mentors reporting fewer relationship benefits for youths (mentors in this study ranged in age from 18 to 56). It is possible that age may predict more modest and tempered appraisals of effectiveness as opposed to outcome per se.

In his study of developmental mentoring, Karcher (2005) assessed a number of potential risk factors for mentees in the areas of family (poverty, history of abuse, and stability of home situation), school (i.e., low grades, lack of engagement, learning disability, poor attendance) and behaviour (i.e., rebelliousness, few friends, emotional or psychological problems). Interestingly, Karcher (2005) noted that risk factors were unrelated to whether mentors attended consistently, concluding that it was unlikely that "tough to mentor" kids accounted for less consistent mentoring. In fact, Dubois et al. (2002) concluded that youths from low SES backgrounds and those experiencing both environmental and individual risk factors were more likely to show a positive outcome from mentoring.

Positive Relationships with Mentee's Family

The nature of the mentor's relationship with the family of the mentee seems crucial to the formation of meaningful relationships (e.g., Rogers & Taylor, 1997). Specifically, relationships characterized as cooperative are related to mentoring success (Taylor et al., 1999). Aiello and Gatewood (1989) suggest that keeping parents apprised of what is transpiring in the relationship is key to developing successful matches. Further, it appears

that parent's perceptions of improvement are related to frequent contact between parents and BB/BS (Frecknall & Luks, 1992). Dubois et al. (2002) noted that parent support and involvement were significant moderators of effect size in their meta-analysis of mentoring effectiveness. On the flip side, counsellors at mentoring agencies frequently cite difficulties with families as a factor contributing to relationship failure. Perhaps not surprisingly, some parents feel threatened by the growing bond between their child and another adult and consciously or unconsciously sabotage the relationship. In other cases, parents may be overly intrusive as their own need for connection and support overshadows their concern for their children (J. Austin, personal communication, May, 2002).

Duration of Match and Frequency of Contact

Duration of the match and the frequency of contact have emerged repeatedly as factors predicting both perceptions of improvement and actual positive outcomes for youths (e.g., Edmondson et al., 1984, McLearn et al., 1999, Taylor et al., 1999). Indeed, it appears that the majority of positive effects emerge only after a full year of mentoring (Grossman & Johnson, 1999). These authors note that youths who were involved in mentoring relationships that lasted longer than 12 months and those who were in frequent contact with their mentors felt more confident about their school work, skipped school less often, had higher grades and were less likely to use drugs or alcohol. Interestingly, youths who reported feeling closer to their mentors demonstrated an even lower likelihood of drug and alcohol use. This latter point is important as it is likely that the effects of match duration and frequent contact are mediated by youths' perceptions of closeness. Indeed, in a survey of volunteer mentors, DuBois and Neville (1997) found that frequency of contact was related to feelings of closeness. More interestingly, contact, closeness and frequency of communication were related to perceived benefit to youths. In fact, in this study, the length of the relationship and degree of contact accounted for 63% of the variance in terms of perceived benefit. In their meta-analysis, Dubois et al. (2002) note that youths who reported relationships of greater intensity or quality tended to score somewhat higher on measures of positive outcome.

Frecknall and Luks' (1992) study of parents' perceptions of the Big-Little match revealed that the success of the match appeared related to the length of time the child had

been involved in a mentoring relationship with 69% of parents with children who had been matched 1-2 years reporting an improvement and 90% of parents with children who had been matched 2-3 years reporting improvements. It is noteworthy that the majority of research which has failed to find an effect for mentoring has focused on programs with low rates of interaction and of short duration (e.g., Roberts & Cotton, 1995).

If the benefit of the mentoring relationship is realized through the fact that mentors serve as significant attachment figures and as role models, it is not particularly surprising that positive effects require substantial input and occur over a lengthy period. Further, given that populations of mentees are often characterized by disrupted homes and repeated disappointments from adult figures, we would anticipate that the formation of a meaningful, trusting relationship could be a long, arduous process (Freedman, 1992). It seems clear, however, that when such matches are created they result in benefits for both parties. Unfortunately research revealed that, within a large, representative sample of BB/BS agencies in the United States, approximately 55% of mentoring matches terminate early (Grossman & Rhodes, 2002). Importantly, just as longstanding mentoring relationships are related to improvements in functioning for youths, premature termination may lead to negative outcomes. In fact, in one of the only studies directly examining this issue, Grossman and Rhodes (2002) found that youths who were in matches that terminated within the first three months suffered significant declines in their global self-worth and scholastic competence. Further, after data were carefully controlled for potential selection biases, the results were maintained, suggesting that early terminations result in a decline in functioning (e.g., increased alcohol use). Similar research has examined mentor attendance in the context of a six month school-based mentoring program. Karcher (2005) found that when mentors attended sessions consistently, youths reported improvements in obedience to authority, self esteem, and social skills whereas, when mentors did not attend consistently, youths reported feeling less attractive, more poorly behaved and less skilled in interacting with peers. Unfortunately, Parra et al. (2002) note that the majority of the dyads they studied within the BB/BS agency did not meet the minimum contact requirement of three hours/week. Similarly, in their analysis of a mentoring program within the juvenile justice system Mecartney, Styles, and Morrow (1994) found that mentors did not show up for 36% of scheduled visits. Their analysis of in-depth interviews with youths revealed profound

disappointment and self-blame. Slicker and Palmer (1993) used post-hoc analyses to differentiate effectively and ineffectively mentored youths (based on mentee evaluations of their experience) from those who did not receive mentoring. These authors noted that ineffective mentoring may pose a greater risk than no mentoring at all. Specifically, as compared with effectively mentored and control groups, ineffectively mentored youths were at risk for a decline in self concept and a decrement in academic achievement over the course of the six month study period. In their meta-analysis, Dubois et al. (2002) found that positive effects were evident for at-risk youths involved in well-run programs while negative effect sizes were evident for vulnerable youth involved in programs that did not follow best practice guidelines.

These findings are particularly troubling when we consider that it is often the most vulnerable youths who are impacted by premature terminations. For example, Grossman and Rhodes (2002) found that matches most likely to terminate were those of adolescents who had been referred for psychological or educational programs or who had sustained abuse. We would anticipate that such youths might be at an even greater risk to suffer from feelings of rejection and abandonment and perhaps be left with fears and concerns about their own acceptability. Given that mentoring programs are designed with precisely the opposite impact in mind, i.e., the formation of intensive one-to-one relationships which lead to enhanced feelings of self-worth, early identification of problematic matches is key to agency functioning.

Program Screening and Supervision

Given the personal and potentially influential nature of Big and Little Sister relationships, it is critical that healthy role models are selected as mentors. Herman (1993) has advocated strongly for the use of screening measures (e.g., personality inventories, measures of abuse potential, measures of mental health) in assessing the suitability of volunteer mentors. Initial research with the 16 PF (i.e., a self report measure of healthy personality) is promising, suggesting that committed volunteers tend to score higher on the conceptual, conscientious, feelings-oriented, and forthright trait scales (Herman & Usita, 1994a). A more extensive study conducted by the same authors found that the 16PF could correctly classify 79% of staff-rated appropriate and inappropriate volunteers, with rigidity,

anxiety, apprehensiveness and poor judgment emerging as important predictors (Herman & Usita, 1994b). Research with the Child Abuse Potential Inventory has also shown some utility in screening excellent vs. bad and accepted vs. rejected volunteers (Herman, 1995), though the author acknowledges problems with high false positive rates and the difficulty of deciding on an appropriate cut-off score for screening out. Herman (1995) suggests however that CAP subscales can be useful in identifying potential areas of concern and assist in further directing the interviewing and screening process. As the BS agency under investigation in the present study does not make use of established inventories and measures, there will be no further examination of such tools in this dissertation.

Irrespective of the strength of the screening process, it is inevitable that Big-Little matches will encounter some level of difficulty in negotiating the development of a close relationship. However, there is no reason that these difficulties should necessarily lead to the premature termination of a match. In fact, there is much research to suggest that program practices have the potential to override many potential match problems (e.g., Sipe, 1998). Furano, Roaf, Styles, and Branch's (1993) study of program practices within BB/BS agencies revealed that intensive program supervision is related to more positive match outcomes. For example, they note that when case-workers take a hands-on approach, pairs are more likely to meet regularly. In particular, face-to-face supervision made a significant difference to likelihood of meeting and frequency of meeting in any 4-wk interval.

Dubois et al. (2002) conducted a meta-analytic review of mentoring effectiveness, specifically examining a number of program practices deemed important to mentoring outcome including screening of mentors, matching procedures, training and supervision, availability of program-based activities, parental involvement, and program expectations about frequency and duration of contact. The authors found larger effect sizes for programs that monitored implementation, provided structured activities, and provided ongoing training to mentors. Additionally, programs based in communities or workplaces as opposed to schools and those that used experienced mentors (e.g., employment in a helping role) demonstrated larger effect sizes. Dubois et al. also found that program expectations about frequency of contact was related to significantly larger effect sizes, with programs that included such expectations showing more positive outcomes. Unexpectedly, program expectations about duration of contact did not moderate effect size. Generally speaking,

programs that engaged in a majority of the 11 identified best practices[6] showed larger effect sizes, doubling the effectiveness of the program. The authors observed that the provision of ongoing training to mentors was related to more positive effects than initial screening, training, and matching. Parra et al. (2002) proposed and tested a model for determining relationship benefits wherein positive training experiences increased mentor's self confidence which in turn impacted the amount of time mentors spent with youth, the number of obstacles they reported encountering, their involvement in program activities and, finally, ratings of closeness, match continuation and positive benefits. The authors conclude that mentor competency is critical in the formation and maintenance of matches. Blechman (1992) also advocates strongly for the ongoing provision of training, supervision, social support, and positive feedback within mentoring programs, noting that a number of factors (e.g., high-risk mentees, difficult families) may interfere with the mentor's progress. Of note, a recent local survey of Big Sisters' needs and concerns found that the majority of respondents reported concerns about whether they were acting effectively and requested workshops to assist them in dealing with the many concerns arising with their mentees, including self esteem issues, communication, and conflict management.

Nurturance, Encouragement and Trust

In a review of the mentoring literature, Sipe (1998) noted that the key to effective mentoring relationships is the development of trust. This finding is consistent with the research supporting match duration and frequent contact as predictive of match success. From an attachment perspective, it seems clear that youths must gradually come to have faith in the availability, love, and support of a mentor before they are able to invest in the relationship and, consequently, benefit from it. Hendry et al. (1992) specifically explored adolescents' perceptions of significant individuals in their lives (in this case, natural mentors). These authors caution that, while adult mentors are unlikely to fill the gap left by absent/unavailable parents, they do play an important role during adolescence as teens struggle to become more independent, differentiate themselves from their parents, and

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[6] Theory based best practices include: "monitoring of program implementation, screening of prospective mentors, matching of mentors and youth on the basis of one or more relevant criteria, both prematch and ongoing training, supervision, support group for mentors, structured activities for mentors and youth, parent support or involvement component, and expectations for both frequency of contact and length of relationships" (Dubois et al., 2002, p.165).

assign less importance to family role-models. This research concluded that the most important characteristic of a meaningful relationship is the adult mentor's faith in and support of the youth. Mech, Pryde, and Rycraft (1995) found that good mentors are available, trustworthy, helpful, understanding, and honest. Rogers and Taylor (1997) note that when youths felt mentors were good listeners and that they were learning something new they were more likely to benefit from the relationship. Finally, Taylor et al. (1999) identify nurturing and encouragement, engagement in mutual problem-solving, and setting reasonable goals as key factors to relationship success.

Thompson (1997) carried out an in-depth analysis of the relationship between Bigs and Littles, interviewing three dyads about their experiences. Central themes which emerged from interviews with youths were, a) "making a stranger into a friend" and b) "life is better because I have a Big". Both mentors and mentees enjoyed the process of actively developing a friendship, of experiencing acceptance and connection, and of sharing responsibility for the relationship.

Interestingly, it does not seem to be the case that level of support has a linear correlation with positive outcomes. Langhout, Rhodes, and Osborne (2004) found that relationships characterized by moderate activity and structure constituted the most effective approach despite the fact that mentees in this group described their mentors as lower on support than in other groups. The authors hypothesize that unconditional support is not an appropriate goal – in fact, youths in the unconditional support group actually derived no benefits from mentoring and reported greater alienation from parents. Langhout et al. suggest that when mentors are too supportive/permissive they may be unintentionally competing with parents and reducing the likelihood that youths will seek support at home. Further, failure to provide negative feedback to youth when appropriate may lead the youth to believe that such feedback from others is undeserved and provides little opportunity to practice appropriate conflict resolution. Similarly, Rook (1987) reported that individuals who were enduring a wide-range of life difficulties rated friendship satisfaction and reduced loneliness as more important than emotional and instrumental support.

Positive Feelings toward Mentee

Not surprisingly, mentors' positive feelings toward mentees are predictive of their intention to remain in the relationship. Parra et al. (2002) report that mentor and mentees' feelings of closeness were linked to both match duration and appraisals of match benefit. Of importance, it appears to be the presence of positive feelings as opposed to the presence of negative feelings that acts as a predictor of one's intention to sustain the relationship (Madia & Lutz, 2004). This finding would suggest that it is not avoidance of conflict but rather ensuring the maintenance of feelings of attraction that is key to maintaining a mentoring relationship. Such a finding is consistent with Gottmann, Coan, Carrere, and Swanson's (1998) research on marital relationships, which concludes that it is not the absence of negative interaction but rather the presence of a high ratio of positive to negative interactions that is characteristic of marital satisfaction. Moreover, relationship depth appears to outweigh other important variables such as perceived similarity and expectation-reality discrepancies. The finding is also consistent with Langhout et al.'s (2004) conclusion that unconditional support is not as effective as support in combination with some structure.

Focus of the Relationship

Research suggests that perhaps the most important factor underlying successful mentoring is the approach to the relationship taken by mentors (Morrow & Styles, 1995). Specifically, relationships characterized by friendship, equality, mutuality in decision making and a strong focus on forming a connection as opposed to those that target specific goals are much more successful. Morrow and Styles (1995) conducted a qualitative study of 82 randomly selected matches, ranging in length from 4-18 months. In addition to a review of case files, the authors interviewed both Bigs and Littles on two occasions, 9 months apart. Two types of relationships emerged, referred to by the authors as Developmental (n = 54) and Prescriptive (n = 28). Developmental matches were characterized by friendship, equality and a strong focus on forming a connection. Bigs in Developmental matches took responsibility for maintaining the match and refrained from advice giving and goal setting, but rather concentrated on having fun. Prescriptive matches, on the other hand, were characterized by the desire of the Big to guide the youth into new values, attitudes and behaviours. Bigs in Prescriptive matches had clearly defined goals and expectations for the

youth and saw the relationship as a means to an end, rather than an end in and of itself. Interestingly, at the end of the study, 91% of those matches which could be classified as Developmental were ongoing while only 32% of Prescriptive matches remained stable. Both adults and youths in Developmental matches reported a strong sense of commitment and a desire to continue the match. Youths reported feeling supported, felt that they could talk with their partners about anything, and felt that their Bigs had been helpful in resolving or coping with difficulties. Adults and youths in Prescriptive matches reported feeling frustrated, unsatisfied and were less likely to regard their partners as sources of consistent support. Consistent with attachment and social learning models of mentoring, this research suggested that volunteers that were able to develop lasting and supportive friendships displayed the following traits: a) they took time to establish and maintain youth's trust, b) they were more likely to be open and listen when the youth revealed personal information and avoided lecturing or pressuring youths for additional information, c) they respected the youth's desire to have fun, d) they encouraged youth involvement in decision making and ensured that mutually satisfactory activities were agreed on. Although some researchers (e.g., Rodenhauser, 2000), have noted that characteristics of the protégé are highly related to relationship success, the research by Morrow and Styles suggests that the ultimate responsibility for the mentoring relationship lies in the hands of the mentor.

While no other research to date has specifically contrasted developmental versus prescriptive relationships, several studies emphasize the importance of a more general focus on friendship building. In a project investigating how Bigs, Littles, and parents felt about the impact of BB/BS mentors on children who had been through a divorce, Taylor (1982) notes that perceived benefits were not tied to whether the dyad focused on this particular issue. In fact, though Bigs and Littles tended to talk about a wide range of subjects they rarely, if ever, specifically spoke about the divorce, suggesting that the impact of mentoring lay more in the offering of general support and attention. Indeed, children in this study reported that they liked having a friend and an opportunity to engage in activities away from home. Rogers and Taylor (1997) also report that for youths one of the key factors in predicting successful relationships was a high level of enjoyment. Research by Aiello and Gatewood (1989) supports this finding, suggesting that engaging in mutually enjoyable activities and jointly planning activities help mentors successfully develop relationships with youths. These

authors go on to suggest a number of "developmental approach" tactics to help mentors successfully build relationships with youths including developing rapport and trust in small stages, sharing their own experiences and knowledge, being consistent but flexible, encouraging responsible behaviour, sharing concerns, promoting healthy activities in school and out, developing future plans, assessing strengths and weaknesses and reinforcing strengths, helping develop youth's positive relationships with other kids, and showing genuine interest. Similarly, other researchers have reported that participation in sports and athletic activities were associated with both mentor and youth ratings of relationship closeness and relationship continuation (Parra et al., 2002). Sipe (1998) makes the point that emotional connections grow not by an explicit focus on conversation and intimacy but by sharing activities together. Similarly, Gilligan (1999) reinforces the important of providing "ordinary", mainstream activities for youths in care, suggesting that greater benefit can be derived from such engagement as compared with "professional" or specialist treatment. Hays and Oxley (1986) looked at the natural development of supportive relationships in a group of individuals entering college. Students listed up to ten individuals and then commented on aspects of this network (i.e., frequency of contact, intimacy, similarity, proportion of mutual friends, locations of interaction, task assistance, info/advice, emotional support, fun/relaxation, conflict experienced) over a 12 week period. These supportive relationships appeared to develop in the same way as dyad relationships. The authors noted an increase in depth and breadth of interactions over time. Interestingly, and consistent with the research just discussed, intimacy was related to increased emotional support as well as fun and relaxation. Further, the presence of fun and relaxation was the network function most consistently related to adaptation.

Langhout et al. (2004) identified a mentoring typology based on levels of activity, structure and support. Their research supports the previous finding, i.e., higher involvement in activities is related to positive outcomes while low-key relationships (less active) show less positive effects overall. Langhout et al. found that relationships characterized by moderate activity and structure constituted the best approach with mentees showing decreased alienation from parents, decreased conflict with peers, and improved self worth and competence.

Grossman and Halpern-Felsher's (1993) review of various community programs targeting youth at risk also support the long-term effectiveness of programs such as BB/BS that take a preventative as opposed to a corrective approach. As problem behaviours tend to arise from underlying conditions, programs with a more distal focus were more effective than those with a more proximal focus.[7] They conclude:

> In sum, our review indicates that the most effective "programs" are ones that focus on the most distal causes of the problem and the unmet needs of youth to prevent subsequent youth problems. Prevention programs appear to be more successful than corrective interventions, and programs that focus on more than one behavioural outcome are more successful than uni-dimensional programs. Moreover, programs that help youth mature – that transform their ways of thinking and understanding rather than simply treating youths like vessels that need to be blindly filled with information are the most impressive (pp. 24-25)

In contrast, a meta-analysis conducted by Dubois et al. (2002) found that type of program practice (i.e., psychosocial versus instrumental focus versus both) did not impact the program's ability to produce positive effects. As it is unclear how psychosocial versus instrumental goals were rated and whether this distinction was similar to Morrow and Style's (1995) developmental vs. prescriptive or Grossman and Halpern-Felsher's (1993) preventative vs. corrective classifications it is not clear whether this finding represents an inconsistency in the literature.

Similarity

Much of the literature on intimate and other relationships identifies perceived similarity as an important predictor of quality and satisfaction (e.g., Acitelli, Douvan, & Veroff , 1993). Madia and Lutz (2004) hypothesized that similarity may also play a role in the development and maintenance of mentoring relationships. Specifically, they investigated the role of perceived similarity in personality, interests, ethnic origin, and attitudes on mentors' expressed intentions to remain in the relationship. Madia and Lutz revealed that mentors who, during the initial year of their match, perceived themselves as similar to their mentees

[7] Grossman et al. (1993) define proximal programs as those that focus on the most immediate causes of a problem, while distal programs target the underlying factors. For example, in understanding early pregnancy a

in terms of extraversion reported higher relationship quality and expressed a stronger intention to remain in the relationship. On the other hand, perceived similarity in attitudes, race, interests and other personality attributes (i.e., neuroticism and openness) did not emerge as significant predictors. In their meta-analysis, Dubois et al. (2002) found that matching mentors with youth on the basis of relevant criteria (e.g., gender, ethnicity, interests) did not moderate effect sizes.

In related research, Chapdelaine, Kenny, and LaFontana (1994) conducted an examination of the role of liking and perceived similarity in "matchmaking." These authors constructed a situation in which female university students conversed with new individuals and subsequently rated their own liking for these persons as well as made predictions about how much these individuals would like one another. Chapdelaine et al. found that individuals used their own liking of others to estimate how generally popular they would be and how much particular individuals would like one another. Further, when asked to justify their "matches" 87% of individuals identified an area of similarity. Perhaps not surprisingly, these predictions lacked accuracy. While this research does not directly examine mentoring, it is reasonable to assume that counsellors may also use perceived similarities as well as their own liking of mentors and mentees to estimate how much they might like one another. Interestingly, Chapdelaine et al. reported increased predictive accuracy when individuals keep track of factual and relational information and past research suggests that factual similarity is more accurate in predicting liking than trait similarity (Schenider, Hastorf, & Ellsworth, 1979). Thus, the role of similarity in match success may depend on whether one measures perceptions of similarity versus actual similarity and, further, which areas of similarity are attended to. The current study included measures of actual similarity in terms of interests, age, ethnic background, and energy levels.

Congruency of Expectations

Madia and Lutz (2004) designed a specific measure to retroactively investigate mentors expectations at the outset of the mentoring relationship and then, subsequently, when the match was underway. They found that negative discrepancies (i.e., actual

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proximal cause might be lack of access to birth control while a distal factor might be an unstable home environment.

relationship does not live up to expectations) predicted poorer relationship quality and lower expressed intention to remain in the relationship, whereas positive discrepancies (i.e., actual relationship exceeded expectations) predicted higher relationship quality. This finding is consistent with the developmental versus prescriptive focus literature in that individuals who enter a match with specific expectations would be more likely to experience disappointment when such goals were not achieved.

Additionally, apprising all parties of the focus of the mentoring relationship, and ensuring that congruency exists in this respect, is key to a successful outcome. Meissen and Lounsbury (1981) compared expectations of volunteers, children, and parents in a Big Brother-Big Sister program. Interviews with parents, Bigs and Littles revealed that, in general, these groups tended to have very different expectations about the match and rated potential benefits quite differently. This was particularly true of problem matches. In fact, congruency of expectations from Littles, Bigs and parents and agreement on potential benefits were related to fewer problems within the match. As previously stated, youths who enter mentoring programs are frequently referred on the basis of problem behaviour with the expectation that the mentoring relationship will both alleviate existing problems and prevent further declines in behaviour. However, as we have seen, such changes are neither immediate nor easily achieved. It is possible that educating parents and Bigs about the long term benefits of simply establishing a close friendship would assist all parties in viewing the relationship positively in the absence of immediately observable benefits. Congruency of expectations would presumably also enhance cooperative relationships between volunteers and families, a factor described as integral to successful mentoring.

In a related line of research, DeJong (2004) utilized qualitative methodology to explore the role of metaphors in BB/BS mentoring relationships. DeJong reported that 50% of volunteers and youths have adopted the sibling metaphor and find it helpful, while others make use of friend and family metaphors. Of importance, the majority of Bigs and Littles indicated the importance of clarifying role and metaphor-based expectations (e.g., for some Littles the metaphor of sibling may be positive while, for others, it may suggest discipline, unlimited spending). Seventy-six percent of dyads indicated that an explicit discussion of what it meant to be a Big and a Little would be helpful to their relationship.

Rationale for Current Study

The research literature provides consistent support for the efficacy of mentoring as a protective factor for at-risk youths. However, these positive benefits are contingent upon the development of meaningful relationships. Unfortunately not all mentoring programs are structured in a manner that best facilitates relationship growth and, even when program practices are sound, mentors may encounter difficulties in establishing meaningful relationships with youths (Freedman, 1992). Indeed, research reveals that, at present, approximately 55% of matches terminate prior to the one year mark (Grossman & Rhodes, 2002). Youths involved in failed mentoring relationships not only miss the opportunities such a relationship can provide, but are at risk for even greater difficulties. In fact, as described earlier, youths who were in matches that terminated within the first three months suffered significant declines in functioning, including decreased self-worth and scholastic competence as well as increased alcohol use (Grossman & Rhodes, 2002). Again, these findings are particularly troubling when we consider that it is frequently the most vulnerable youths (i.e., victims of abuse, youths referred for psychological or educational programs) who are impacted by premature terminations (Grossman & Rhodes, 2002). Lerner and Galambos (1998) argue that adolescents are particularly vulnerable to such losses as they are at a stage where relationships, and particularly acceptance and rejection, are especially salient.

Given that mentoring programs are designed with precisely the opposite effect in mind, i.e., the formation of intensive one-to-one relationships which lead to enhanced feelings of self-worth, mentoring organizations have an obligation to take whatever steps possible to minimize the potential for premature termination. At this point in time, very few studies have systematically examined predictors of premature termination in mentoring relationships. Using a comprehensive database of 1138 youths involved with the Big Sisters organization, Grossman and Rhodes (2002) examined the varying impact of mentoring relationships of different lengths and investigated predictors of match duration. These authors found that matches most likely to terminate prematurely were those of vulnerable youths, and those of older youths (13-16). Interestingly, mentors with lower income and those who were married and between the ages of 26-30 were also more likely to terminate early. Female matches were also more likely to terminate early than male matches. Finally, and not unexpectedly, relationship quality significantly mediated the impact of some

variables in predicting early termination. In another study on this topic, Blocher (1993) used survey methodology to investigate factors important in differentiating maintained and prematurely terminated matches. Of the eight factors examined, the extent to which the mentor perceived parental support, frequency of contact with the mentee, and issues around the mentor's career were most useful as predictors of relationship outcome. In fact, maintained and terminated relationships could be correctly classified in 79.6% of cases on the basis of these factors. In another study, Madia and Lutz (2004) asked active BB/BS mentors to complete a number of questionnaires about themselves and their Littles on race, attitudes, interests and the Big Five personality traits. Participants also completed measures of relationship quality, interpersonal attraction, expectations about the mentoring role, perceptions of the actual role, and mood. The authors concluded that negative discrepancies between expected and actual roles and a perceived lack of similarity in extraversion were associated with lower feelings of closeness and reduced intention to remain in the relationship. Importantly, the authors note that Bigs' appraisals of relationship quality and attraction mediated these associations.

The current archival research provides a unique contribution to the literature in this area by focusing solely upon information available at the outset of the relationship, a point in time most useful in terms of screening out volunteers and/or identifying the need for early intervention. Additionally this study utilizes a multi-informant approach by relying on data from mentors, mentees, agency staff, referral sources, and parents. In so doing, the study is better able to tap a wide range of information and identify actual similarities and differences in Bigs and Littles, avoiding the bias inherent in having any one party address these issues. A wide range of clinical and demographic variables were investigated, with the goal of differentiating mentor, mentee, and match predictors of match duration (refer to Appendix A for a complete list of variables). LS variables that are unique to this study include history of personal or family illness and disability, history of mental health contact, social isolation, measures of the quality of current and past family relationships and presence of a high risk environment. With respect to BS variables, a specific examination of mentor motivation and expectations was undertaken so as to clearly identify factors likely to predict poor relationship bonds. To this end, a rating scale was developed from Morrow and Styles's (1995) Developmental vs. Prescriptive classification scheme (i.e., friendship focus vs.

corrective focus) to determine whether this variable can be reliably assessed at match onset and to investigate whether initial approaches to mentoring are related to subsequent styles and can reliably predict relationship success (refer to Appendix B for the description of Developmental and Prescriptive styles used by coders). Also, given that a percentage of matches end due to BS moves, an attempt was made to measure and examine the impact of BS housing and employment stability as it relates to match duration. Additionally, a wide range of BS variables including history of mental health concerns and past and present relationships with family were also examined. As the Big Sister agency examined in this research does not make use of specific screening measures (e.g., 16 PF), it was not possible to investigate the relative contributions of such scales in predicting match duration.

While it is apparent that great effort goes into the formation of matches between Big Sister volunteers and young girls, it is less clear exactly how these decisions are made. Agency staff report efforts to match interests and personalities, to meet particular Big and Little Sister requests, as well as attending to practical issues such as timing of application and proximity of residences. Additionally, a more subjective, intuitive sense of fit seems to play a role in match formation. The present study sought to provide information to allow for more systematic decision making in this area. Specifically, particular match characteristics that might predict relationship success were investigated, including similarity in personality, energy level and interests, whether special relationship requests were accommodated, age differences, ethnicity match, and more subjective ratings of match fit. Additionally, this study is the first to investigate the impact of practical considerations (e.g., how important is matching for "access to vehicle" if the LS expresses a desire for this?). Finally, a lengthy follow up period (i.e., 3-6.5 years) provided a mechanism for answering questions about premature termination as well as investigating predictors of lengthy match duration. Importantly, in contrast to some prior research, the current study utilizes actual termination as the outcome variable as opposed to expressed intention to remain in a relationship as a proxy for actual behaviour. This is important given that many factors may intervene between one's intention and one's behaviour. For example, Johnson, Caughlin, and Huston (1999) differentiate three types of relationship commitment that may be equally applicable to mentoring matches, including moral commitment (a sense of being obligated to stay in the relationship), personal commitment (a desire to stay in the relationship), and structural

commitment (the presence of barriers to leaving a relationship). The authors propose that, for these reasons, one's intention to exit a relationship may not mirror one's actual behaviour. In addition to predicting total match duration, the current study also examined whether it is feasible to predict premature match termination (i.e., termination prior to the one year point).

Determining whether initial approaches to mentoring can reliably predict relationship success provides an important base from which agencies can develop more effective screening and matching processes, as well as identify matches for which extra training and/or close supervision would be beneficial. As Dubois et al. (2002) found that the provision of ongoing training to mentors was related to more positive effects than initial screening, training, and matching, the early identification of high-risk matches is arguably the most important focus of the current research. To the extent that one can successfully predict which matches are most likely to terminate prematurely, agencies will be in a better position to strategically allocate limited resources. Moreover, this study allows us to identify common points of match termination so as to time interventions more effectively. Further, as this research includes clinical and dynamic variables in addition to static variables, it provides a more solid foundation for the development of appropriate intervention programs. Given that more than half of those matched will subsequently not fulfil the commitment they have made to vulnerable youths, the importance of research investigating common risk factors for termination is paramount.

METHOD

Participants

This archival study was conducted through Big Sisters of BC Lower Mainland, an affiliate of the National Big Brothers/Big Sisters mentoring agency. The study included 196 Little Sisters (LS)[8] ranging in age from 7-17 (M = 10.9, SD = 2.2), with 91% of LS reporting an age of 14 or younger. Referral sources varied, with 39.8% of LS referred by the Ministry of Children and Families, 44.4% by a family member and 15.8% by a school. While 50% of LS were Caucasian, the remaining came from diverse ethnic backgrounds, including First Nations (23.5%), South Asian, Chinese, Black, Middle Eastern, Latin American, and other visible minorities. As a whole, LS represented an at-risk group with referral sources endorsing a variety of difficulties. The majority of LS came from single parent homes (69.9%) and over 70% of LS had experienced a divorce in their household. Over half of the 75% who responded to the question regarding financial assistance indicated that the families of LS were currently on Social Assistance. Additionally, almost half (46.9%) of LS had or were currently receiving mental health support. Further descriptive information can be found in Table 1.

With respect to Big Sister volunteers (BS), ages ranged from 19 to 57 (M = 31, SD = 7.9). The ethnic background of BS tended to be less diverse, with 80.1% of BS reporting Caucasian ethnicity. The majority of BS were single (80.1%), and childless (92.9%). As a group, Big Sisters tended to be well educated with all volunteers indicating successful completion of high school and over 80% of the sample reporting current engagement in or completion of a university education. Further descriptive information can be found in Table 2.

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[8] Although an affiliate of BB/BS, the local BS of BC Lower Mainland agency serves only a female population. No effort was made to include LB in this study as, at the time of the study, BB's program practices differed from the practices of BS. Past research suggests little impact of gender in predicting match outcome, suggesting only that female matches show a higher premature termination rate than male matches (Grossman & Tierney, 1998).

Procedure

Data were collected for 196 matches (392 individuals) formed between 1997 and 2001. With only minor exceptions, all matches formed during this time frame were included in the study.[9] Match endpoint data were collected in 2004, allowing for a minimum three year follow up period. This procedure resulted in a representative sample of matches that varied in length, ranging from the earliest termination at two weeks to matches that were ongoing at the time of data completion (maximum observed length was seven years).

To avoid bias in the coding of variables, the researcher remained blind to match outcome (i.e., whether the match was ongoing and, if not, when it terminated) when coding files. To accomplish this, a list of all matches during the identified time frame was generated by agency staff. Staff subsequently extracted the following file information from all matches to produce research files containing, 1) BS Application forms, 2) BS Screening Interviews, 3) two referral letters for BS, 4) LS Referral forms, and 5) LS Home Interviews[10]. These data were reviewed by the researcher and coded using forms and manuals developed for this purpose (Appendix A)[11]. Match outcome and information regarding prior match history were collected in 2004 using the BS agency match database.

Measures

Several coding measures (LS, BS, and Match variables) and an accompanying manual were developed for the purpose of this study. As this research was largely exploratory in nature, an effort was made to code all measurable variables. Thus data were originally collected on a total of 50 LS variables, 24 BS variables, and 15 match variables. Data included a series of dichotomous variables obtained from referral form checklists and interview responses (e.g., Divorce in Family – Y/N; Academic Problems – Y/N; Mental Health History – Y/N), demographic information (e.g., age, education, income), a series of

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[9] Matches that were excluded from the sample were all matches between a Big Sister and a Little Brother (a special program practice that had occurred rarely and had been discontinued by the time of the present study), two matches for which the author had a personal relationship with the Big and wished to maintain confidentiality of records, and five matches for which important file data were unavailable.

[10] Given confidentiality issues, these forms are not included as Appendices within this document. The original screening forms can be obtained with special permission from Big Sisters of BC Lower Mainland.

[11] As the data collection spanned a three year period, minor changes to screening, application and referral forms had occurred during this time frame. These changes resulted in the presence of some missing data and may have contributed to variability in the data.

3-pt ratings of peer and family relationships, match variables derived from LS and BS individual responses (e.g., matched for stated interest in Outdoor, Indoor or all activities), wait times, age differences, and overall ratings of confidence in the match and match fit (refer to Appendix A for the full coding manual).

After an initial examination of the data, several variables were created to capture information obtained from responses to open-ended questions (e.g., referral sources' report of additional problems led to the creation of several variables including problems with self esteem, family neglect, and high risk environment). Additionally, where deemed theoretically and statistically appropriate, a number of variables were collapsed to form new variables (e.g., LS history of family relationships - ratings of Poor and Moderate were combined; BS housing and employment stability were collapsed to create a single stability variable). Finally, variables which showed little or no variation were dropped from further analyses (e.g., Sexual Orientation Confusion in LS and family).

RESULTS

Analyses

Interrater Reliability

A trained psychology graduate student, also blind to outcome, independently recoded 50 randomly selected match files (25.5% of the total sample) for the purposes of obtaining interrater reliability data. Agreement was calculated using the Intraclass Correlation (ICC) and Kappa (K) statistics. With some exceptions, these data revealed acceptable reliability (refer to Appendix C) Where interrater reliability was low and data could be checked via the Big Sisters match database, this process was undertaken and data were recoded as per database information.[12] In cases of low interrater reliability for subjectively coded variables, these were dropped from further analyses. Given the low base rate for many of the variables included in this study and the resulting high probability of chance agreement, high levels of interrater agreement frequently yielded only moderate Kappa values.

Descriptive Analyses

LS waited, on average, approximately 14 months to be matched with a BS (*SD* = 10.5 months). Fifty-six percent of LS were matched within one year of applying to the agency and 85% were matched within two years. As expected, BS waited less time to be matched, with a mean delay of approximately nine months (*SD* =11.6 mos). In contrast to LS, 84% of BS were matched within one year of applying to the agency, with the majority of these matched in the first six months. Matches ranged in length from two weeks to over seven years, with the average match lasting 2.5 years (*SD* = 1yr, 8.5 mos).[13] Reasons for

[12] One such example was for LS Referral Source – due to an oversight in training, this easily coded variable produced low reliability but was easily checked against the database for accuracy.

[13] As match end point was not observed for all matches, this number is lower than the true average match length.

eventual match termination were coded from the BS database[14]. Broadly defined, 48.4% of match terminations could be attributed to the BS and occurred for a variety of reasons including moves (21.4%), lack of continuing interest (21.4%), conflict with parents (1.6%), time constraints (3.2%), and "LS too demanding" (0.8%). LS and their families initiated match termination in 19.8% of cases due to moves (11.9%) and lack of interest (7.9%). The single most common reason for eventual match termination was lack of contact (23.8%) while irreconcilable differences was cited in 7.9% of cases. Rates and reasons for premature match termination (i.e., those that terminated prior to meeting the one year commitment) are discussed in a later section.

Little Sisters

Descriptive data on the demographic and background characteristics of LS are presented in Table 1. Effect sizes were calculated for differences in frequencies between matches lasting less than one year (n = 45), matches lasting between one and three years (n = 79) and matches lasting three years or longer (n = 72). For nominal variables Cramér's phi coefficient was used, while eta was the measure of effect size utilized for interval variables. As per Cohen (1988), a "small" effect size = .10; a "medium" effect size = .30 and a "large" effect size = > .50. Generally speaking effect sizes were small though occurred in the predicted direction. LS with a history of mental health contact, a recent move, exposure to parental violence, mental and physical illness within the family, parental neglect, a negative home environment and reduced quality of family relationships were somewhat more likely to be in shorter term matches. On the other hand, LS who came from single parent households showed a trend toward longer match length.

Big Sisters

Descriptive data for Big Sister volunteers are presented in Table 2. As with LS variables, summary demographic, background and clinical variables are presented in addition to frequency of characteristics by length of match data. Small to medium effect sizes were found for higher educational achievement, higher quality of family relationships, a developmental relationship focus and raters' impression of ease of matching.

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[14] Match termination in this case does *not* refer to premature match termination but rather eventual match termination.

Match Characteristics.

As described earlier the present study also investigated match characteristics related to the duration of the Big and Little Sister pairing. Interestingly, matching the pair on practical factors (e.g., access to a vehicle when the LS had requested such), showed strong effects. Meeting specific match requests (e.g., BS request for a LS within a certain age range; LS request for a married/single BS) also emerged as potentially important. Further, establishing good matches for personality variables, interests and energy level may potentially be important to match duration. Interestingly, these data also revealed a small positive effect for shared ethnicity, with a higher percentage of matches lasting three years or longer consisting of BS and LS who shared an ethnic background. Table 3 provides descriptive data regarding match characteristics.

Table 1: Characteristics of Little Sisters (LS)

Characteristics	Total (n=196)	Match < 1 Year (n=45)	Match 1-3 Yrs (n =79)	Match ≥3 yrs (n=72)	Effect Size
Youth Age (*M, SD*)	10.9 (2.2)	10.8 (2.1)	11.4 (2.3)	10.3 (2.1)	.19
Youths experiencing – Frequencies (%)[a]					
Single Parent	137 (69.9)	31 (68.9)	50 (63.3)	56 (77.8)	.13
Has Siblings	127 (64.8)	27 (60.0)	53 (67.1)	47 (65.3)	.06
Mental Health Contact	92 (46.9)	23 (51.1)	40 (50.6)	29 (40.3)	.10
Divorce	138 (70.4)	33 (73.3)	53 (67.1)	52 (72.2)	.06
Academic Problems	34 (17.3)	7 (15.6)	17 (21.5)	10 (13.9)	.09
Peer Problems at School	58 (29.6)	10 (22.2)	24 (30.4)	24 (33.3)	.09
Recent Move	47 (24)	14 (31.1)	20 (25.3)	13 (18.1)	.12
Drug/Alcohol Problems					
Youth	0	0	0	0	
Parents	51 (26)	12 (26.7)	17 (21.5)	22 (30.6)	.09
Total (All Family)	59 (30.1)	13 (28.9)	24 (30.4)	22 (30.6)	.02
Abuse					
Victim of Abuse	39 (19.9)	8 (17.8)	17 (21.5)	14 (19.4)	.04
Parental Violence	27 (13.8)	11 (24.4)	6 (7.6)	10 (13.9)	.19
Total – Victim and/or Witness	57 (29.1)	16 (35.6)	22 (27.8)	19 (26.4)	.08
Experienced a Death	43 (21.9)	12 (26.7)	15 (19.0)	16 (22.2)	.07
Illness in Family	58 (29.6)	12 (26.7)	26 (32.9)	20 (27.7)	.16
Behavioural Problems	43 (21.9)	8 (17.8)	19 (24.1)	16 (22.2)	.06
Problems Identified in Open-Ended Question:					
Disability (LD, ADD, FAS, PDD)	63 (32.1)	15 (33.3)	25 (31.6)	23 (31.9)	.02
Low Self Esteem	33 (16.8)	6 (13.3)	16 (20.3)	11 (15.3)	.08
Parental Abandonment/Neglect	21 (10.7)	1 (2.2)	11 (13.9)	9 (12.5)	.15
Isolation (i.e., few friends/family)	34 (17.3)	6 (13.3)	14 (17.7)	14 (19.4)	.06
Negative Environment	19 (9.7)	8 (17.8)	6 (7.6)	5 (6.9)	.24
Family Issues					
Social Assistance					
(75-80% response rate)	88(56.0)	21 (46.7)	38 (48.1)	29 (40.3)	.09
Unemployed (75-85% response rate)	85 (54)	21 (46.7)	38 (48.1)	26 (36.1)	.09
Hty of Family Relationships					.08
Good	43 (21.9)	9 (20.0)	20 (25.3)	14 (19.4)	
Moderate	97 (49.5)	20 (44.4)	40 (50.6)	37 (51.4)	
Poor	56 (28.6)	16 (35.6)	19 (24.1)	21 (29.2)	
Current Family Relationships					.10
Good	87 (44.4)	16 (35.6)	36 (45.6)	35 (48.6)	
Moderate	100 (51.0)	28 (62.2)	38 (48.1)	34 (47.2)	
Poor	9 (4.6)	1 (2.2)	5 (6.3)	3 (4.2)	

[a] As endorsed on a checklist by referral source

Table 2: Characteristics of Big Sister Volunteers (BS)

Characteristics	Total (n=196)	Match < 1 Year (n=45)	Match 1-3 Yrs (n =79)	Match ≥3 yrs (n=72)	Effect Size
Age in Years (*M, SD*)	31.1 (7.9)	30.3 (7.9)	30.9 (8.3)	31.2 (7.6)	.06
Years in Current Home (*M, SD*)	4.1 (5.6)	3.9 (4.7)	3.9 (6.3)	4.4 (5.3)	.04
Years in Current Job (*M, SD*)	2.9 (3.6)	3.5 (4.4)	2.4 (2.7)	3.1 (3.8)	.04
Big Stability Total Score (*M, SD*)	6.9 (6.9)	7.4 (7.1)	6.3 (7.3)	7.5 (6.4)	.06
Frequency Reporting (%)					
Married/Common Law	39 (19.9)	10 (22.2)	16 (20.3)	13 (18.1)	.04
Educational Background					.16
Some Post Secondary Education	63 (32)	17 (37.8)	21 (26.6)	25 (34.7)	
University Graduate	121 (61.7)	22 (48.9)	55 (69.6)	44 (61.1)	
Own Children	14 (7.1)	3 (6.7)	6 (7.6)	5 (6.9)	.02
Access to a Vehicle	153 (78.1)	31 (68.9)	65 (82.3)	57 (79.2)	.13
Good Peer Relations[a]	179 (91.3)	39 (86.7)	73 (92.4)	67 (93.1)	.09
History of Family Relationships[a]					.07
Good	98 (50)	23 (51.1)	40 (50.6)	35 (48.6)	
Moderate	81 (41.3)	17 (37.8)	31 (39.2)	33 (45.8)	
Poor	17 (8.7)	5 (11.1)	8 (10.1)	4 (5.6)	
Current Family Relationships[a]					.12
Good	148 (75.5)	30 (66.7)	60 (75.9)	58 (80.6)	
Moderate/Poor	48 (24.5)	15 (33.3)	19 (24.1)	14 (19.4)	
Mental Health Concerns					
Hty of Mental Health Problems	53 (27.2)	13 (28.9)	20 (25.3)	20 (27.8)	.04
Hty of Depression	39 (20)	11 (24.4)	14 (17.7)	14 (19.4)	.07
Rater Judgment – Completely Straightforward	74 (38)	13 (28.9)	28 (35.4)	33 (45.8)	.14
Developmental (5) vs. Prescriptive (1) Focus (*M, SD*)	4.24 (.86)	4.09 (.99)	4.24 (.85)	4.35 (.77)	.14

a. As rated from Big Sisters' reports of family/peer relationships.

Table 3: Characteristics of Matches

Characteristics	Total (*n*=196)	Match < 1 Year (*n*=45)	Match 1-3 Yrs (*n* =79)	Match n ≥3 yrs (*n*=72)	Effect Size
Age Difference - Years (*M, SD*)	20.2 (8.5)	19.5 (8.6)	19.5 (8.7)	21.3 (8.2)	.10
Wait Time Little – Years (*M, SD*)	1.2 (.87)	1.09 (.73)	1.33 (.97)	1.0 (.87)	.13
Wait Time Big - Years (*M, SD*)	.74 (.96)	.94 (1.12)	.67 (.77)	.71 (1.0)	.03
Little's Stated Preferences					
Ethnicity Match	182 (92.9)	41 (91.1)	72 (91.1)	69 (95.8)	.09
Marital Status Match	190 (96.9)	44 (97.8)	75 (94.9)	71 (98.6)	.10
Access to Vehicle when requested	184 (93.9)	38 (84.4)	74 (93.7)	72 (100)	.24
Age Match	178 (90.8)	41 (91.1)	71 (89.9)	66 (91.7)	.03
Big's Stated Preferences					
Age Match	153 (78.1)	35 (77.8)	58 (73.4)	60 (83.3)	.11
Interests (Outdoor activities, indoor activities, both)					.15
Perfect Match	145 (73.9)	37 (82.2)	55 (69.6)	53 (73.6)	
Good Match	49 (25)	7 (15.6)	24 (30.4)	18 (25.0)	
Energy Level					.22
Perfect Match	94 (47.9)	16 (35.6)	36 (45.6)	42 (58.3)	
Good Match	95 (48.5)	27 (60.0)	42 (53.2)	26 (36.1)	
No Match	7 (3.5)	2 (4.4)	1 (1.3)	4 (5.6)	
Personality Match					.18
Perfect Match	62 (31.6)	13 (28.9)	27 (34.2)	22 (30.6)	
Good Match	68 (34.7)	19 (42.2)	30 (38.0)	19 (26.4)	
No Match	23 (11.7)	5 (11.1)	6 (7.6)	12 (16.7)	
Shared Ethnicity	91 (46.4)	21 (46.7)	31 (39.2)	39 (54.2)	.13
Rater's Judgments					
Little's Matchability – Constraints	108 (55.1)	26 (57.8)	46 (58.2)	36 (50.0)	.08
Big's Matchability – Constraints	122 (62.2)	32 (71.1)	51 (64.6)	39 (54.2)	.14
Match Fit (1-5) – Mean, SD	3.99 (.97)	3.87 (.94)	4.01 (1.08)	4.04 (.86)	.04
Confidence That Match Will Last > 1 Yr [/100%]	89.9 (12.5)	87.4 (12.6)	89.8 (14.7)	91.7(9.3)	.11

Predictive Utility of Mentee, Mentor and Match Factors

A central question of this research pertains to the extent that BS, LS and match characteristics can successfully predict length of match. Given that 55 matches (28.1%) were ongoing at the end of the study (i.e., some of the data are censored[15]), proportional hazard rate analysis is the most appropriate statistical technique. Hazard rate analyses rest on the assumption that all matches experience a probability of breaking up at each period, and that

[15] Censored data included those matches for whom the end point was not observed, i.e., all matches that were ongoing at the end of the study. Any match which ended during the study period irrespective of the reason for the match end (e.g., conflict, LS/BS moved, irreconcilable differences, lack of interest) was coded as having terminated.

the smaller the hazard rate is, the longer the match is expected to last. The empirical hazard rate is defined as the number of matches that close in a given month relative to the number of matches that survived to the start of that month. A baseline hazard rate of match termination in any particular month up to the four year mark was calculated (see Figure 1) to allow a standard from which to interpret the impact of investigated factors. In the current study, the average hazard rate was .025, meaning that the expected length of match is $1/h$ or 40 months.

The next step was to examine the impact of covariates on the average hazard rate, i.e., whether each variable appeared to increase or reduce the expected duration of match. Initially, univariate survival analyses were conducted to provide an overall view of the data (see Tables 4 and 5). Subsequently, a multivariate Cox regression was completed to determine which variables significantly impact the hazard rate of Big and Little Sister matches. Three sets of data were examined, including LS variables (e.g., age, history of abuse, family dynamics), BS variables (e.g., age, motivation, focus, marital status, mental health concerns), and match variables (e.g., shared ethnicity, shared interests, impression of match fit). These data are presented in Table 6.

Figure 1: Probability of Match Termination

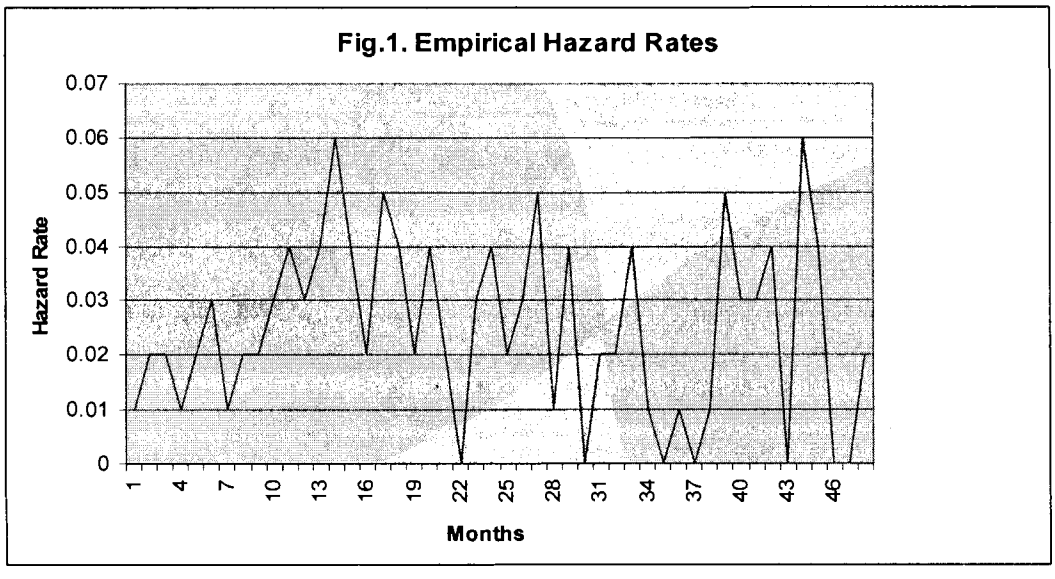


Table 4: Univariate Analysis of Variables Impacting Length of Match for Little Sister Variables

Variable	Coefficient (ß)	Risk Ratio Exp (ß)	Sig.	95% Confidence Interval
Age*	.074	1.077	.045	**1.002 – 1.158**
Grade (K-3, 4-7, 8-10)*				
Grades 4-7	.096	1.101	.611	.761 - 1.592
Grades 8-10	.191	1.210	.472	.720 - 2.034
Ethnicity (Caucasian, FN, Asian, other)*				
First Nations	-.082	.921	.699	.609 - 1.394
Parenting Situation (single, both, other family, foster/unstable)*				
Both Parents	.298	1.347	.169	.881 - 2.059
Foster/Unstable	.091	1.095	.830	.478 – 2.512
Divorce	-.129	.879	.478	.615 – 1.256
Social Assistance	-.013	.987	.944	.683 – 1.427
Siblings	.130	1.139	.471	.800 – 1.621
Referral Source (Agency, Family, School)*				
Family	-.216	.806	.239	.562 – 1.155
School	-.257	.774	.312	.471 – 1.272
Mental Health Contact	.095	1.100	.574	.790 – 1.531
Academic Problems	.218	1.244	.304	.821 – 1.884
Peer Problems at School	-.030	.970	.869	.677 – 1.390
Moved in the past year	.370	1.447	.056	.991 – 2.112
Drug/Alcohol Problems in Family	-.206	.814	.278	.561 – 1.181
Abused	-.097	.908	.647	.600 – 1.374
Witnessed Violence	.150	1.162	.535	.723 – 1.866
ADD/ADHD	.022	1.022	.938	.588 – 1.777
Learning Disability	.258	1.295	.285	.806 – 2.080
Illness in Family (Mental & Physical)	1.086	2.962	.001	**1.518 - 5.778**
Death of Someone Close	.058	1.059	.775	.714 – 1.572
Behaviour Problems	.031	1.032	.873	.701 – 1.519
Low Self Esteem	-.045	.956	.844	.611 – 1.496
Abandonment/Neglect in the Home environment	-.185	.831	.499	.486 – 1.421
Socially Isolated	-.172	.842	.450	.538 – 1.316
Negative or High Risk Environment	.341	1.407	.214	.822 – 2.410
Energy Level (high, medium)	.101	1.106	.555	.792 – 1.544
Personality (More extraverted)	-.046	.955	.831	.628 – 1.453
Peer Relationships (Poor)	.170	1.185	.554	.675 – 2.080
History of Family Relationships (Moderate or Poor)	-.259	.772	.182	.528 – 1.129
Current Family Relationships (Moderate)	.339	1.403	.053	.996 - 1.976
Preference for Single Big Sister	.434	1.544	.087	.939 – 2.540
Some Constraints to Matching	.170	1.185	.323	.846 – 1.660

*Non dichotomous variables

Table 5: Univariate Analysis of Variables Impacting Length of Match for Big Sister and Match Variables

Variable	Coefficient (ß)	Risk Ratio Exp (ß)	Sig.	95% Confidence Interval
Big Sister				
Age*	-.014	.986	.207	.964 – 1.008
Ethnicity (Minority)	.131	1.140	.542	.749 – 1.735
Length of Time in Last Job*	-.033	.967	.209	.918 – 1.019
Length of Time in Last Residence*	-.011	.989	.498	.959 – 1.020
Stability*	-.016	.984	.230	.959 – 1.010
Married/Common Law	.092	1.097	.659	.728 – 1.652
Own Children	-.255	.775	.464	.392 – 1.533
Educated (University Degree/Graduate Work)	-.258	.773	.464	.387 – 1.541
Access to Vehicle	-.085	.918	.675	.616 – 1.369
Energy – High	.240	1.271	.160	.910 – 1.776
Interests – Outdoor Activities only	-.332	.718	.313	.377 – 1.366
Peer Relationships – Moderate rating	.492	1.635	.073	.955 – 2.799
History of Family Relationships - Poor	.111	1.117	.714	.618 – 2.021
Current Family Relationships - Moderate	.171	1.187	.392	.802 – 1.758
History of Depression	.176	1.192	.396	.794 – 1.790
Some Constraints to Matching	.377	1.458	.035	**1.027 – 2.071**
Previously been matched	-.115	.892	.616	.570 – 1.395
Ranking of 3 on Developmental* (5)/Prescriptive (1) Scale	.529	1.697	.049	**1.002 – 2.873**
Match Variables				
Ethnicity Match with Littles' Request	-.281	.755	.373	.407 – 1.401
Shared Ethnicity	-.131	.877	.440	.630 – 1.223
Access to Vehicle matched with Littles' Request	1.302	3.676	.000	**1.957 – 6.903**
Age Matched to Littles' Request	.094	1.098	.766	.593 – 2.035
Age Matched to Big's Request	-.335	.716	.089	.486 – 1.053
Interests in Indoor/Outdoor Activities – Excellent Match	-.024	.977	.904	.665 – 1.434
Energy Level – Excellent Match	-.370	.691	.030	**.495 – .964**
Age Difference in Years*	-.018	.982	.089	.962 – 1.003
Wait Time for Little*	.038	1.039	.680	.867 – 1.244
Wait Time for Big*	.044	1.045	.605	.883 – 1.237
Confidence that Match will last one year (0-100%)*	-.013	.987	.048	.975 – 1.000
Match Fit (1-5) – Perfect Fit*	-.085	.919	.709	.589 – 1.434

* Non dichotomous variables

Table 6: Multivariate Hazard Rate Analysis of Length of Match

Variable	Coefficient (ß)	Risk Ratio - Exp (ß)	Significance	95% Confidence Interval
Little Sister				
Moved in the past year	.441	1.55	.025	1.06 – 2.28
Mental and physical illness in family*	1.05	2.86	.003	1.42 – 5.75
Big Sister				
Peers	.853	2.347	.023	1.124 – 4.901
Match Constraints	.419	1.521	.047	1.006 – 2.298
Stability*	-.040	.961	.017	.931 - .993
Match				
Request for BS with Vehicle NOT met	1.392	4.024	.000	2.111 – 7.670
Big Sister Age preference met	-.442	.643	.030	.431 - .958
Energy Level Match	-.370	.691	.034	.491 - .972

* Non-dichotomous variable

Little Sister Variables

Multivariate analyses identified several LS factors that appeared to predict shorter match duration. LS whom had moved in the year prior to applying to BS had a significantly increased risk of match termination. Specifically, a recent move increased the risk of termination by 55%, with LS whom had moved in the year prior to being matched having an average match duration of 24 months as compared to 31 months for those whom had not moved. This relationship could not be fully accounted for by an increase in the likelihood that LS would move again. LS who had moved in the year prior to being matched were not significantly more likely to terminate a match due to a subsequent move (Fisher's Exact Test = 12.82, p = .08). Although many aspects of the Little Sister home environment did not emerge as significant, presence of both mental and physical illness in the family increased the risk of termination almost three times, rendering the average length of match for this group only 14 months as opposed to two and a half years for LS who came from families without significant illnesses. Interestingly, the presence of a mental illness in the absence of physical illness did not predict a decrease in match duration. Univariate analyses suggested that older LS may be at a slightly increased risk of match termination and that the presence of some difficulties in current family relationships increased the risk of termination by 40%. However, these variables did not achieve statistical significance in multivariate analyses.

Figure 2: Univariate Survival Analysis: Little Sister moved in the past year

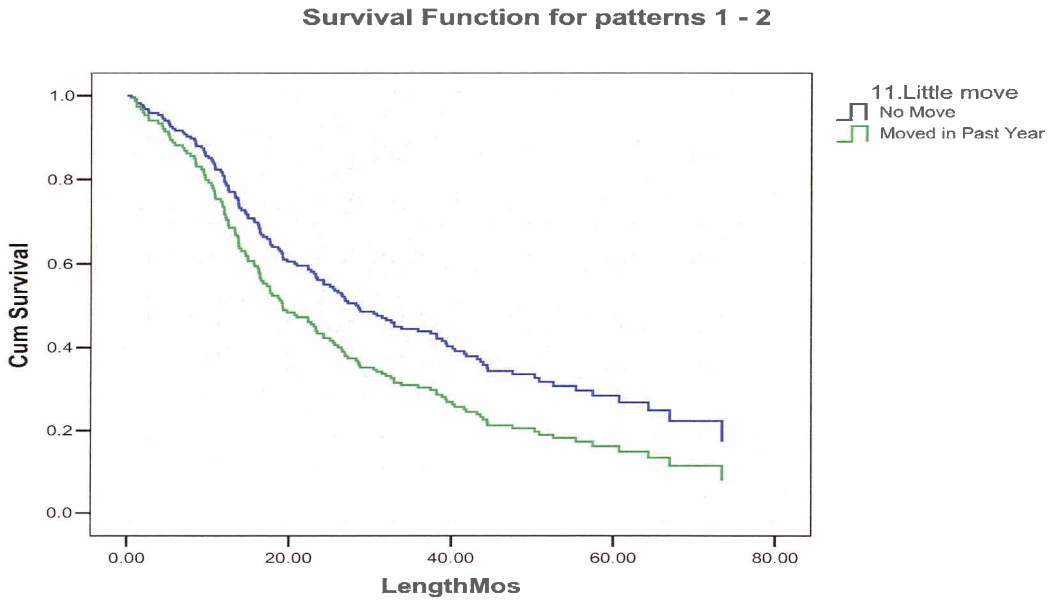
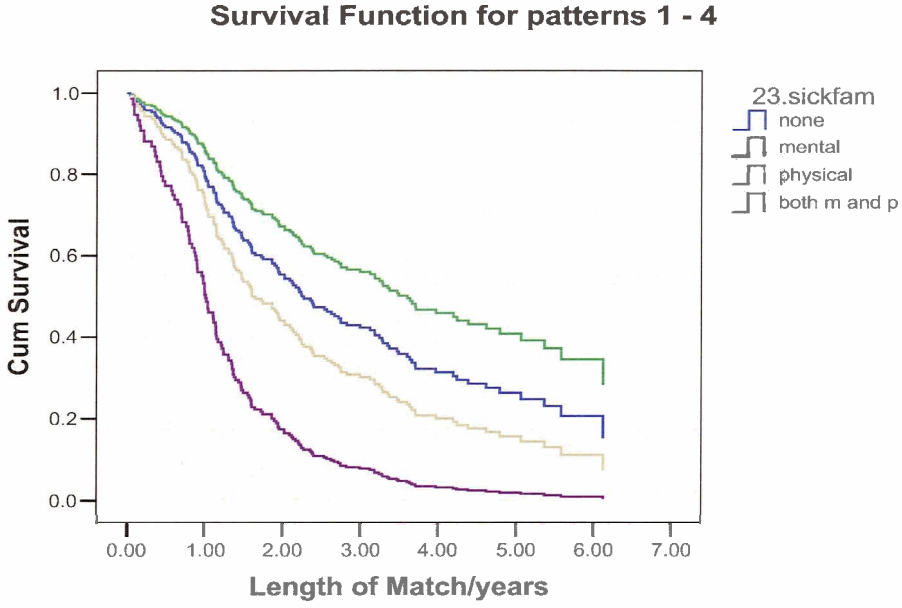


Figure 3: Univariate survival analysis: Illness within family of LS



Big Sister Variables

With respect to BS variables, three factors emerged as significant in multivariate analyses. Raters' impression that BS peer relationships showed signs of difficulties (as based on the BS interview and reference letters) was related to an increased risk of match termination. Specifically, BS with peer relationships that were rated as "moderate" as opposed to "good"[16] were almost two and half times as likely to terminate. Unfortunately, given complications in the scoring of this variable – specifically, the second coder rated all Big Sisters as having good relationships - interrater reliability was unacceptably low[17]. Thus the variable is based on only the primary author's ratings and must be interpreted with caution. In addition, the rater's subjective sense of whether constraints were present in being able to appropriately match the Big Sister was also related to match duration. When the rater felt that the BS was not a completely straightforward match (e.g., the BS had reported potential problems dealing with specific LS issues such as lack of cleanliness or alcoholism in the LS's family; the BS had requested an "easy" match), the match had a 45% increased risk of termination. The third variable that emerged as important was a measure of BS's stability based on how long she had been living in her last residence and employed in her last job. Consistent with expectations, BS showing greater stability had a slightly decreased risk of match termination. Again, this could not be fully accounted for by an increase in likelihood that less stable BS's would move again ($F = .671$, $p = .41$). Univariate analyses suggest an additional possible impact of BS's approach to the relationship. BS who were rated as having a more prescriptive focus (i.e., setting goals, more authoritative, views role as parent instead of friend) showed a higher risk of match termination. However, when examined in combination with other predictors, this variable did not emerge as a significant predictor of match duration.

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[16] No Big Sister peer relationships received the lowest rating of "poor".

[17] It is important to note that, perhaps due to the vast difference between the end points in rating Big and Little Sister peer relationships, the second coder rated all Big Sister peer relationships as "good". Given this fact, in combination with the low number of Bigs rated as having moderate relationships (n=17), interrater reliability was low despite the fact that there was 92% agreement between raters. Consequently, any conclusions drawn about this variable must be done so with caution as they are based exclusively on the primary author's ratings.

Figure 4 Univariate Survival Analysis: Big Sister Peer Relationships

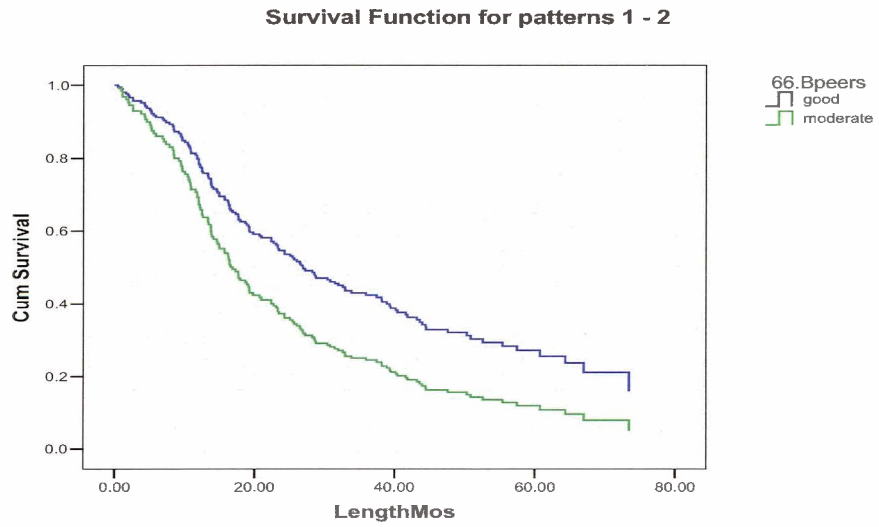
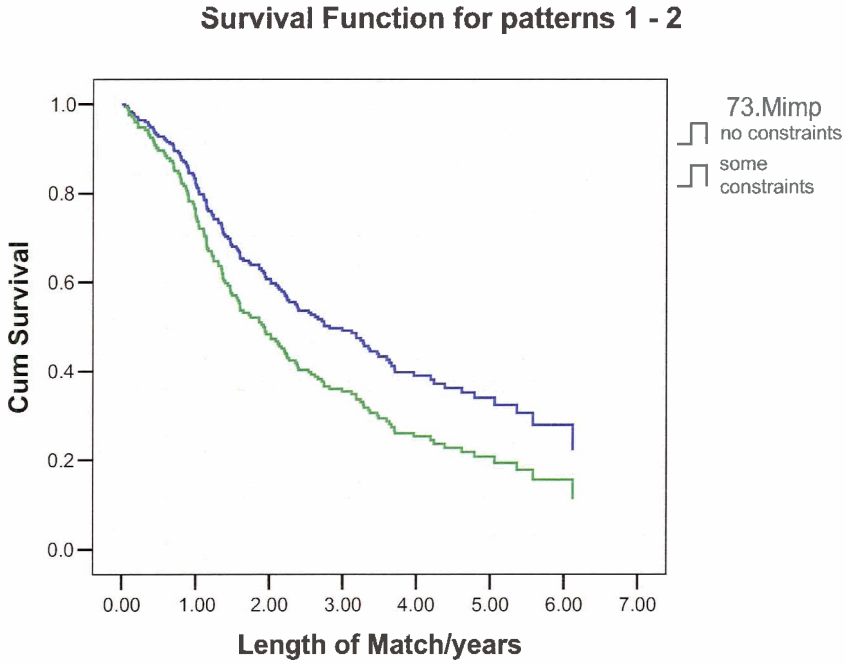


Figure 5 Univariate Survival Analysis: BS –Counsellor Rated Match Constraints



Match Variables

In terms of match variables, what appeared to emerge as important were meeting the demands of the Big and Little Sister. For example, if the Little Sister requested a BS with access to a vehicle and she was not granted this request, her match was four times more likely to break up. In fact, these matches lasted an average of 11 months as opposed to an average duration of 31 months for matches in which the LS did not express a preference for access to a vehicle or, expressed such a desire and had her wish granted. Similarly, if the Big Sister's request for a LS within a specific age range was not granted, the match was 35% more likely to break up. Additionally, matching LS and BS in terms of their self-reported energy levels also appeared critical to match success. LS and BS who were perfectly matched (i.e., both reported high energy, both reported medium energy, both reported low energy) showed a significantly reduced risk of termination. Univariate analyses further suggested that raters appeared to have a reasonable sense of whether a match would persist, with matches that were given higher confidence ratings being less likely to fail. However, match confidence did not emerge as an important predictor in multivariate analyses.

Figure 6 **Univariate Survival Analysis: Match with Little Sister's Request for a BS with Access to a Vehicle**

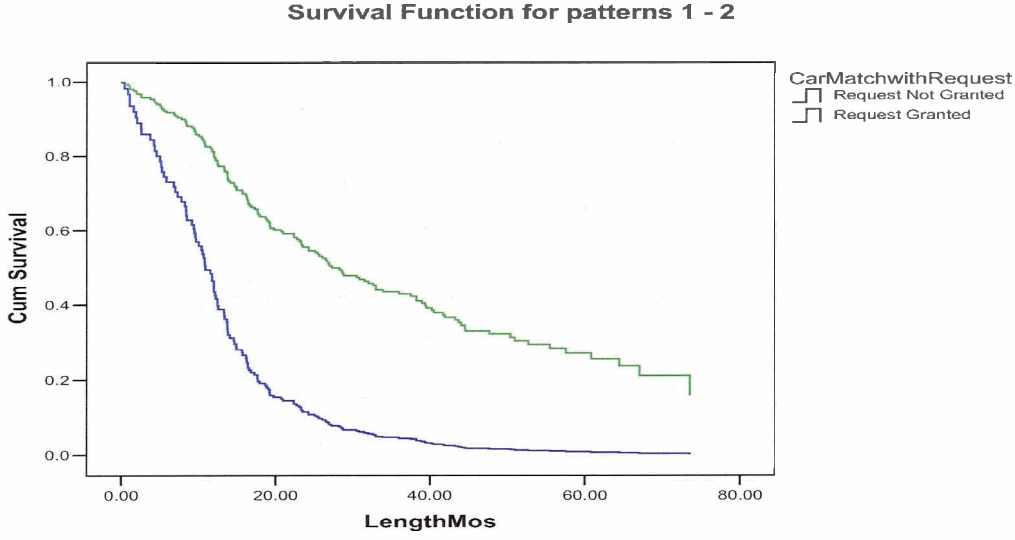


Figure 7 Univariate Survival Analysis: Matched BS's Request for LS of a certain age

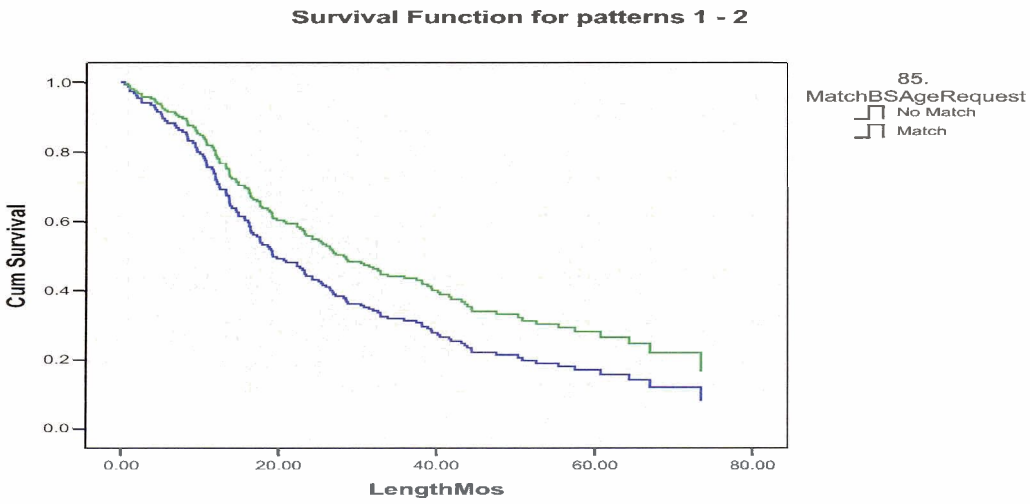
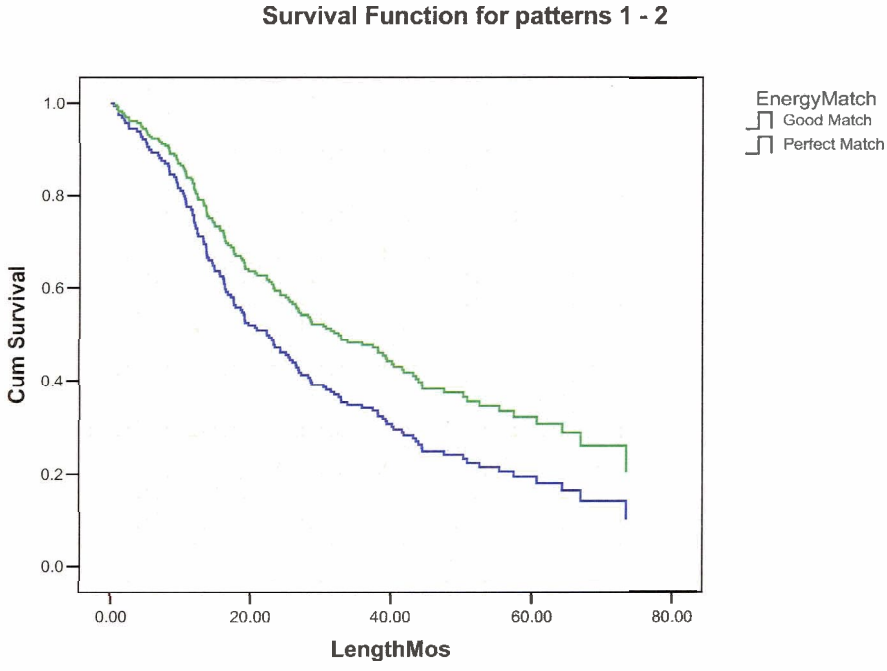


Figure 8 Univariate Survival Analysis: Energy Level Matched



Match Termination Prior to One Year

When Big Sister volunteers join the agency, they make a commitment to meet with their LS's for three to five hours a week over a period of one year. In the current research, a total of 45 matches (23%) terminated prematurely (i.e., before the one year mark). Of these, equal numbers terminated within three months and between three and six months (n = 9) with the remainder of premature terminations occurring between the sixth and twelfth months. Of all premature terminations, over 50% could be attributed to the BS, with a move accounting for 20%, lack of interest accounting for 17.8%, and lack of time accounting for 7%. Other reasons cited for premature match termination were lack of contact (20%), irreconcilable differences (11%), conflict with parents (2 cases), and LS "too demanding" (1 case). In 7% of cases the LS expressed no interest in continuing the relationship and in 11% of cases the LS moved out of the region prior to the one year point. Given that almost a quarter of matches did not reach the one year mark, a second and related question stemming from this project pertains to the issue of predicting matches that make it beyond the one year mark. To this end, a logistic regression was utilized. Variables were entered in a forward stepwise fashion using the likelihood ratio with the goal of predicting a dichotomous dependent variable (i.e., did not terminate prior to one year versus did terminate prior to one year). In the interest of achieving the best model, a backwards stepwise regression was subsequently undertaken. As with the survival analyses, three sets of factors were independently entered into the logistic regression: LS variables, BS variables and match variables. All three sets of variables were subsequently entered simultaneously into a forwards stepwise regression.

Little Sister

When LS variables were examined independently, the only variable which emerged as an important predictor of premature termination was witnessing abuse in the household. Specifically, LS who had been exposed to abuse in the household had significantly lower odds of remaining matched past the one year point.

Big Sister

When BS variables were examined independently, level of education emerged as a significant predictor of premature match termination. Specifically, Big Sisters who had

obtained higher educational status were more likely to remain matched beyond the one year mark. In comparison to BS who had only a high school education, those with some postsecondary education were over three times as likely to stay together after one year, and BS whom had completed a Bachelor's degree or graduate training had five times the odds of remaining matched.

Match Variables

In addition to predicting total match duration in survival analyses, matching the LS's request for access to a vehicle also decreased the odds of premature match termination. Matches in which the LS's request for a car was granted had significantly higher odds of making it past the one year mark than matches for whom the request was not granted.

All Variables

When all three sets of variables were entered into a logistic regression, BS's level of education dropped out and several other variables emerged as important. Specifically, in addition to matching the LS's request for a car and LS's exposure to abuse in the household, a rating of BS's peer relationships and matching the pair on the basis of interests were significant predictors of premature match termination. BS who were rated as having moderate peer relationships (as judged by references and self report) were significantly less likely to remain matched beyond the one year mark as compared with those who were judged to have good peer relationships.[18] At the application stage, both BS and LS identify their interests as predominantly outdoor, indoor or both. Contrary to expectations, a perfect match on stated interests decreased the odds of making it beyond the one year mark.

[18] Readers are reminded that, given difficulty with the coding of this variable and resulting low interrater reliability, these analyses must be treated with caution.

Table 7: Logistic Regression Predicting Odds of Remaining Matched Beyond the One Year Mark

Variable	Coefficient (ß)	Risk Ratio – Exp (ß)	Significance	95% Confidence Interval
Little Sister				
Witnessed Abuse at Home	-1.051	.350	.018	.146 - .835
Big Sister				
Completed some Post-secondary Education	1.285	3.615	.050	.998-13.101
Graduate Studies/Degree Completed	1.620	5.053	.010	1.471-17.355
Match				
Car Not Matched with LS Request	-1.744	.175	.005	.052 - .584
LS, BS and Match Variables Entered				
Witnessed Abuse at Home	-.1362	.256	.042	.069 - .953
Car Not Matched with LS Request	-2.368	.094	.003	.020 - .450
Moderate Peer Relationships	-2.602	.074	.002	.014 - .394
Perfect Interests Match	-1.556	.211	.029	.052 - .856

DISCUSSION

The current data, collected within a local BS affiliate agency, revealed a premature termination rate of 23%. This is markedly lower than the 55% rate observed by Grossman and Rhodes (2002) in a large representative sample of eight BB/BS agencies in the United States. In many respects the samples were comparable, with the majority of youth in both studies considered at-risk. Although the current sample was younger (10.9 vs. 12.25), age does not account for the difference in termination rates observed. In fact, among a subset of 124 youths who are 10 or older (M = 12.21) from the current study, the premature termination rate falls to 21.8%. Additionally the fact that the current sample was entirely female as compared with the majority male sample used by Grossman and Rhodes does not explain the lower premature termination rate given that research has identified either no gender differences or a higher risk of termination among females. Though proportionally equivalent in terms of minority status, the samples did come from different cultural and ethnic backgrounds (i.e., First Nations/Asian vs. African American/Hispanic). Although prior research has not identified ethnicity as a predictor of match duration, the vast majority of studies have been conducted in the United States and are thus limited to the ethnic groups more prevalent in this population. It is possible that the specific risk factors facing ethnic minorities in the United States account for the higher termination rates witnessed within American agencies. Alternatively, given strong evidence for the impact of program practices in predicting match success (e.g., Dubois et al., 2002), it seems most probable that the lower termination rates are due to better practices within the BS agency studied. Although all BB/BS agencies follow national standards, it seems likely that, within a smaller, more focused agency, it is possible to achieve greater consistency in program administration and increased contact with volunteers and youths, two variables that have been linked to greater match success. While Dubois et al. (2002) reported no significant difference in effect sizes related to gender of mentor, it is not clear that any of the programs in their meta-analysis focused exclusively on male or female matches. Future research would usefully compare agencies that focus specifically on one gender with those that include both males

and females. The fact that research has consistently demonstrated no gender differences in outcome measures does not suggest that organizations with a narrower population base will not be more successful in forming and maintaining matches. Data from the Grossman and Rhodes (2002) Big Brothers/Big Sisters study does suggest that females are served better by agencies that focus exclusively on females. These authors report that involvement in female-only programs increases the likelihood of regular meeting from 86% to 94% in any one month long period. Clearly, the availability of national Canadian data would also shed light on this question, allowing us to determine whether the low termination rates are specific to the agency studied or reflect broader differences between Canadian and American samples.

The risk of match failure at any point over the span of the study was consistent with prior research. Not surprisingly, in both the current study and in Grossman and Rhodes (2002), an elevated risk of termination was identified at approximately the 13-14 month mark, shortly after the match commitment had been met. It would appear that a subsection of BS volunteers enter the commitment with the intention of remaining matched for only one year and/or that some volunteers and Littles are determined to fulfil their commitment irrespective of how the match is progressing. Given this, it is not surprising that predictors of total match duration differ in some ways from predictors of premature match termination.

The first goal of this study was to determine whether it is possible, on the basis of data collected at match onset, to predict match duration within a Big Sisters mentoring agency. Although effect sizes were consistently small, there is some evidence to suggest that the presence/absence of specific factors may assist us in identifying at-risk matches from Day 1. Among LS variables, proportional hazard rate analyses revealed that Littles who had moved in the year prior to applying to the agency tended to terminate slightly earlier than those who had not. As subsequent moves could not fully account for this difference in termination rates, one might hypothesize that a recent move may be indicative of more general instability within the family. In addition to a recent move, Little Sisters who were from families troubled by significant illnesses (both mental and physical) had three times the risk of termination. Such a finding is consistent with the explanation that family instability predicts shorter match duration. Importantly, the presence of family mental illness in the absence of physical illness did not have a negative impact on match duration. In fact, LS

within families in which only mental illness was present remained matched longer than those in families without significant illness. It is not clear what accounts for this unexpected result. It is possible that physical illnesses create a burden of caretaking responsibilities for youth or that youths may be more aware of physical ailments and more adversely impacted by these (e.g., fear of loss and difficulty/guilt with respect to connecting with another adult). On the other hand, mental illnesses may render guardians less emotionally available and increase reliance on extrafamilial adult mentors. Clearly, additional research is needed to clarify this relationship, particularly given that the current study made no effort to examine whether the type of mental/physical illness or which family member is involved is related to match duration.

In general, it makes sense that when interacting with Littles from troubled home situations it would be more difficult to establish strong ties with parents and establish regular patterns of contact with youth. Given that prior research identifies both mentors' relationships with parents and frequent contact with Littles as related to match success, it is not surprising that factors which might detract from this would shorten the average length of matches. Univariate proportional hazard rate analyses suggest another potentially relevant variable which is supportive of this explanation. Specifically, LS whose current family relationships were rated as moderate/poor show a higher risk of termination than those whose family relationships were rated as good. Interestingly, research suggests that informal mentors typically report much more contact with families of mentored youths than do formal mentors. McLearn et al. (1999) report that between 50% and 82% of informal mentors report having frequent conversations with parents and guardians while this figure drops to 30% among formal mentors. It is possible that mentors within formal programs are less clear about the extent to which they should communicate with families and that direct guidance and advice from program supervisors would be helpful in facilitating stronger matches.

Consistent with past research, univariate analyses further suggest that older youths may be at a slightly increased risk of match failure, though given the long follow up in the current study (seven years) and the fact that BS serves youths only until the age of 17, this finding may be due only to the fact that older youths would have fallen out of the BS umbrella earlier than younger youths. In contrast with previous work in the area, LS's abuse

history did not emerge as a significant predictor of total match duration, though exposure to abuse in the home did increase the likelihood of premature termination. This finding is consistent with Dubois et al. (2002)'s observation that individual risk factors may pose greater challenges to the formation of mentoring relationships than environmental risk factors. Clearly, there are a number of factors which would directly and indirectly influence family stability including, for example, divorce, marriages, changing care situations, abuse, criminal involvement, and drug use. It is difficult to determine why factors such as a recent move and significant illness would be more disruptive to match stability than other named factors. As stated earlier, it is possible that LS within specific situations are required to take on more responsibilities in the home and have less available time to meet. Alternatively, LS may experience a sense of guilt about establishing a close emotional bond with an extrafamilial adult when their own parent is struggling to a great extent. Without more in-depth, qualitative follow-up of LS within troubled and failed matches it will be impossible to answer this question. Unfortunately, the very nature of this population makes such research difficult, if not impossible, to conduct.

A number of Big Sister variables, most of which were unique to this study, were linked with mentoring matches of shorter duration. As appeared to be the case with Little Sisters, Big Sisters' stability plays a role in match duration. Analyses demonstrated that BS who demonstrated greater stability in terms of their place of residence and place of employment had a slightly decreased risk of match failure. A stable home and work situation may function in a number of ways to increase match duration. For example, BS's who are not in the process of changing jobs and residences may be in a position to invest more time in the relationship, may be less likely to encounter competing life stressors, and may feel a greater sense of self-efficacy. Although unreplicated in the current study, previous research has found that single BS between the ages of 26-30 show greater match stability than married BS within the same age bracket (Grossman & Rhodes, 2002). Such research supports the idea that the presence of competing interests (i.e., a spouse) and the resulting loss of available time can detract from match stability. A second predictor of match duration was raters' assessments of how easily matchable the BS was. Big Sisters who were judged to present even minor obstacles to matching (e.g., counsellor comments that BS should be matched with a child with no major challenges, BS reports specific triggers, BS is very

specific about her request for a child) had a higher risk of match termination than BS who were judged to have no constraints to matching. It is possible that this more subjective variable is related to the broader practical issue of the ability of the agency to fulfil match requests. When a Big Sister presents with relevant background experience, a thorough understanding of the mentoring process, and openness to working with any type of LS, it is an easier task to make an appropriate match. On the other hand, counsellors must also strive to accommodate BS who, for whatever individual reasons, are not as open to all possibilities. It is likely that, in these latter situations, compromises are made as the counsellor attempts to fulfil multiple match requests from within a limited pool of predominantly troubled, at-risk youths. It also seems likely that Big Sisters who make specific requests do so because they feel unable to work confidently with LS with particular problems. Given that past research has linked low self-efficacy with difficulty in overcoming obstacles and in building strong mentoring relationships, it makes sense that BS who place limits on their match (i.e., show less confidence) have less stable matches.

Big Sisters who were judged to have less than ideal peer relationships by the primary researcher were also at an increased risk of match failure. Indeed, even minor suggestions from referral sources and Big Sisters' self reports of suboptimal peer relations (e.g., desire for additional friends, lack of available supports) were linked to matches of shorter duration. Establishing a relationship with a non-relative child is, in many ways, more difficult than establishing a same-age relationship in that the roles and responsibilities of each party are less clearly defined. Literature suggests that Big Sisters who approach mentoring with a developmental focus (i.e., take responsibility for building and maintaining the match, emphasize the "friendship" aspect, focus on a sense of equality and mutual enjoyment, understand that positive feedback from youth will not always be forthcoming, accept youths' shyness and reluctance to talk, and focus on having fun) have substantially greater relationship success. Arguably, BS who experience difficulty forming same-age friendships in which societal norms more clearly delineate roles, will struggle to a greater extent with the ambiguity of the Big Sister role. For example, it is possible that some Big Sisters may have the expectation of a more equal relationship and may be looking for greater positive feedback than is typically available within a mentoring dyad. Indeed, a recent survey of Big Sisters identified uncertainty about the mentoring role and, specifically, division of

responsibility for maintaining the relationship as a salient issue for volunteer mentors. As Madia and Lutz (2004) point out, a discrepancy between match expectations and match reality is linked to greater risk of match failure. Consistent with this explanation, univariate analyses suggested that Big Sisters who were ranked as less Developmental and more Prescriptive in focus had a substantially increased risk of match failure.

Finally, there appear to be a number of match variables that are predictive of shorter match duration. The current research, for the first time, made an effort to study whether meeting specific requests made by Big and Little Sisters impacted match duration. While meeting Little Sisters' requests for BS's of a particular ethnic background, marital status, and age did not influence match duration, meeting the LS's request for a Big Sister with access to a vehicle was critically important. Given that Big Sister's access to a vehicle did not have predictive power on its own, it does not seem to be the case that increasing potential opportunities and activities or increasing the ease of meeting are the critical factors. Rather, given that many LS in the program come from impoverished backgrounds, it is reasonable to assume that access to a vehicle has greater significance for those youths who make this specific request. For example, such youths may see the mentoring relationship as a means to achieve greater freedom and engage in activities that aren't otherwise available to them. Alternatively, LS's who request a BS with a vehicle may have very specific expectations of the mentoring relationship and may be more easily disappointed. In contrast to requests for a vehicle, requests for Bigs from specific ethnic backgrounds and of a particular age are perhaps less well understood by Littles and have less practical relevance for matches (e.g., arguably the majority of eight-years olds do not have a reasonable grasp of the difference between a 20 year old and a 30 year old). On the other hand, meeting the Big Sister's request for a LS within a specific age range was a significant predictor of decreased risk of match failure. It seems likely that Big Sisters who make specific age requests enter the program with fantasies and ideas about their matches. As youths vary tremendously as they move along the developmental trajectory, meeting this request and fulfilling, to whatever extent possible, the expectations of Bigs appears important. Finally, matching Big and Little Sisters in terms of their self-reported energy levels appears critical to match success. Interestingly, BS energy level, LS energy level, and presence of ADHD did not emerge as significant individual predictors. However, when both parties rated themselves as high

energy, medium energy or low energy the match had a significantly reduced risk of failure than when these ratings were discrepant. This is a particularly important finding given that counsellors often struggle with matching youths on either extreme of the energy scale (i.e., high-intensity/attention deficit or passive/low energy). The current study suggests that the key to a successful match is finding a Big Sister who self describes in the same manner. Insufficient data were available to examine similarity in personality though some prior research has suggested a linkage (e.g., Madia & Lutz, 2004).

Promisingly, the data also provided some evidence that it is possible to predict with some degree of accuracy which matches are more likely to run into difficulty. Subjective ratings of match confidence emerged in some analyses as linked to match duration, with lower confidence ratings predicting shorter match duration. This is important as it suggests that it may be possible for counsellors, particularly given their even greater familiarity with the parties involved, to identify at-risk matches.

Given that the BB/BS match commitment is for one year, additional analyses were undertaken to determine whether it is possible to predict premature match termination (i.e., termination of match prior to one year). In some respects one might expect these data to be similar to variables predicting match duration. However, hazard rate analyses demonstrate that it is often the case that matches will remain together for just beyond the one year mark. One might hypothesize that matches that terminate shortly after their commitment has been met differ in some ways from matches which do not fulfil the commitment. In particular, it is likely that a sense of duty and obligation, understanding the importance of the match and its impact on the LS, and the ability to commit would discriminate premature terminations from those that last. Unfortunately, the current study did not investigate any of these variables directly. However, interestingly, as Big Sisters' level of education increased, the likelihood of involvement in a match that terminated prematurely decreased. As compared with Big Sisters who had completed only high school, Big Sisters who had completed some university or college were over three times as likely to make it past the one year point and Big Sisters who had completed university and/or graduate studies were five times more likely to make it past the one year mark. While education may serve as a proxy for greater stability or greater income, analyses did not reveal a significant impact for either of these factors in predicting premature match termination. Prior research has suggested that mentor

self efficacy is related to stronger relationships and greater positive effects. One might hypothesize that Big Sisters with more schooling are more self confident, have a greater understanding of what is involved in mentoring a youth or, alternatively, have a stronger sense of commitment and obligation.

Consistent with predictors of match duration, meeting the LS's request for a vehicle and positive BS peer relationships again emerged as significant predictors of premature termination, speaking to the importance of these factors. Unexpectedly, a perfect match on interests negatively impacted the likelihood of match success, suggesting that perhaps one of the most critical functions a mentoring relationship serves is exposing the youth to new and different activities. This finding is consistent with the explanation that LS who request Bigs with access to a vehicle may have anticipated increased opportunities to explore their environments.

Interestingly, Little Sisters who were exposed to abuse in their homes had a decreased likelihood of being involved in matches that lasted beyond one year. It seems likely that greater familial instability, disrupted attachment relationships, and the daunting nature of working with a violent family all contribute to the increase in premature match terminations within this group. Research from a related area, i.e., employment mentoring, suggests an alternative explanation (Allen, Poteet & Russell, 2000). These authors examined protégé characteristics that might be important to mentors in the selection process. They found that mentors and, in particular female mentors, were more likely to choose mentees on the basis of high ability/potential as opposed to their need for help. The authors interpret this finding in the context of social exchange theory; that is individuals are more likely to invest in relationships that provide higher rewards. Within a mentoring agency we might assume that Bigs want to perceive their Littles as able to succeed; they want to see results and be able to experience a sense of accomplishment. As a result, they choose not to remain in matches with Littles who are in high need as they feel less optimistic about the possibility that they will be able to provide meaningful assistance. Interestingly, Little's exposure to abuse did not predict total match duration. This suggests that possibly, if the match is able to endure the initial trying stages and a meaningful bond is established, the Big Sister may feel a sense of self-efficacy and satisfaction and the Little Sister may come to see her mentor as an important resource, decreasing the likelihood for later match termination. Indeed, past

research suggests that youths at-risk may benefit to an even greater extent from the mentoring relationship. This finding suggests that it may be particularly important to carefully monitor matches that involve LS who are in violent home situations during the initial stages. The literature suggests that interventions designed to enhance feelings of intimacy and those designed to enhance mentors' sense of self-efficacy may be particularly useful in supporting such matches (Madia & Lutz, 2004; Parra et al., 2002).

Research conducted by Downey, Lebolt, Rincón, and Freitas (1998) may also account for differences in match duration among dyads. Downey et al. (1998) examined "rejection sensitivity" (p. 1074) in the context of adolescent's relationships, proposing that youths who anticipate rejection from peers will react differently from those who anticipate positive responses. Specifically, these authors hypothesized that the attributions we make about interpersonal situations stem from our internal working models of relationships. Insecurely attached adolescents are 'programmed' to be "hyper-vigilant for signs of rejection" (p. 1076), are more likely to react with aggression and anxiety to such signs, and via these reactions, are more likely to contribute to the dissolution of a relationship. In one study, Downey et al. found that in a group of early adolescents[19], those who were classified as rejection sensitive responded with the greatest distress to an ambiguous rejection. Interestingly, rejection sensitivity and angry responses to rejection also predicted teacher reports of increased aggression toward peers and decreased social competence as well as self reports of antisocial behaviour, aggression, and being victimized. When applied to mentoring, the rejection sensitive literature may help explain some of the difficulties encountered in forming and maintaining relationships. While Downey et al.'s study focused on early adolescence, there is a great deal of research supporting the presence of attachment models in adults (e.g., Bartholomew & Horowitz, 1991). Thus, it is plausible that rejection sensitivity may also factor into mentors' perceptions about the degree to which they are wanted and appreciated by youths, impacting feelings of connection and likelihood of termination. In sum, rejection sensitive mentees and mentors may behave in ways that actually increase the chance of rejection. Future research would usefully include a measure of rejection sensitivity among both Big and Little Sisters to further examine the impact of this variable on the success of mentoring relationships.

The current study marks the first effort to predict match duration exclusively from information available at match onset. Given that it is those matches that terminate prior to the six month mark that have the greatest negative impact on youths, it is important to be able to identify at-risk matches quickly. Additionally, this study makes use of multiple sources of information and has a lengthy follow-up period allowing for a more accurate prediction of match duration. Nonetheless, there are also important limitations. First, as the current study was archival in nature and limited to data available at match onset, no attempt was made to investigate BS and LS frequency of contact, ongoing perceptions of the relationship and the level of support they feel they are offering and receiving. Lakey, McCabe, Fisicaro, and Drew's (1996) research speaks to the importance in the match between perceiver and supporter. Specifically, these authors note that what is considered supportive behaviour will differ vastly across individuals and across relationships, with two individuals experiencing the same behaviour quite differently. Moreover, in order to feel supported within a relationship, the style of support desired and that offered needs to fit. Thus future studies would usefully include measures of perceived support. The current study also made no effort to examine differences in match duration for Big Sisters with relevant work experience and those without. Dubois et al. (2002)'s finding that mentors who were employed within helping professions had greater positive impact on youths than those who were not, suggests that this factor is worth investigating further. Additionally, it would be interesting to determine whether BS's past experiences are related to the type of mentee chosen/assigned; i.e., are experienced BS given higher need LS, thus increasing the likelihood of more significant changes in functioning if they are able to establish a close bond? Unfortunately, ratings of certain variables of interest (e.g., Referral Source expectations, Big Sister's expectations, BS's personality, BS intention to remain matched > one year) were difficult to make and had to be dropped due to low interrater reliability. Thus it was not possible to investigate the predictive power of a number of factors of interest. Additionally, given that the research literature suggests that expectations of BS, LS and families are important to match longevity (Madia & Lutz, 2004), future studies might usefully include systematic measures of these variables. Finally, the scoring of the Developmental vs. Prescriptive variable showed only moderate interrater reliability. Given that this variable has

[19] The sample used by Downey et al. (1998) was very similar to the sample used in the current study, consisting of ethnically diverse youths with an average age of 12.2 yrs and stemming primarily from low SES households.

emerged as critically important in previous research (Morrow & Styles, 1995) and shows some promise in terms of its impact on match longevity in the present study, future prospective studies would usefully integrate a Big Sister or counsellor rating of relationship focus so as to better address this issue.

Clearly, the exploratory nature of this study and the volume of variables studied also warrant caution in interpreting the results. Additionally no effort was made to examine the complex interactions between the variables involved. The use of confidence intervals as opposed to *p* values in judging significance does permit greater certainty that the variables identified are relevant. However, one must also attend to the clinical significance of these findings. Within the current agency, the average length of match was 2.5 years. Moreover, even those matches with high-risk variables had average match lengths of approximately one year (e.g., Littles who requested a BS with a vehicle but were not granted this request remained together for an average of 11 months). Given that Grossman and Rhodes (2002) report some positive impact for matches that last longer than six months and greater positive outcomes for matches that last longer than one year, it is important not to overestimate the importance of the current findings. Thus, while these variables provide useful information in guiding match formation and interventions and may help prevent matches from terminating within the dangerous zone of less than six months, they should not been seen as indicative of certain negative outcomes for youths.

While a few studies to date have examined reasons for match failure, very little published research has examined the ways in which mentoring dyads choose to terminate matches. A privately sponsored analysis of a mentoring program within a juvenile justice system found that over 30% of mentors who discontinued matches offered little or no explanation for the termination, with some abruptly discontinuing their visits with no advance notice (Mecartney et al., 1994). Arguably, the impact of a premature termination on a Little Sister may be substantially reduced if handled directly and in a manner which is respectful of the needs and desires of both parties. Thus, in addition to research targeted toward reducing the likelihood of match failure, it would also make sense to determine whether Big Sisters are broaching match terminations appropriately. It is unlikely that mentoring agencies will ever achieve a 100% retention rate for matches. Given this,

interventions that minimize the harm to youths which may result from premature terminations are warranted.

Because mentoring programs are often targeted to disadvantaged youth, mentors must have the expectation of encountering problems and must enter the relationship with this expectation and the willingness to work through issues that arise (Freedman, 1992). Freedman also speaks to the importance of screening out mentors, as opposed to screening in volunteers. Although recruitment is often a challenge to mentoring agencies, this author reports that it is far better to dissuade individuals who may not be ready for the type of commitment required than to accept potential dropouts. As the current study revealed only limited predictive power of models based on information available at match onset it would not provide sufficient rationale for screening out volunteers. Nonetheless, mentoring organizations have an obligation to take whatever steps possible to minimize the potential for a premature termination. In the past year, the Big Sisters agency within which this research was conducted has formed a committee targeted toward providing ongoing training to Big Sisters. This is an extremely important development given that Dubois et al. (2002) observed that the provision of ongoing training to mentors was related to more positive effects than initial screening, training, and matching. The current research has already provided guidance to the committee in the development of specific training workshops.

CONCLUSION

Past research has demonstrated that the Big Brothers and Big Sisters organization has a positive impact on youths involved in the program, including decreased drug and alcohol use, a reduction in violent behaviour, improved school attendance and expectations of school success, and improved relationships with parents (e.g., Grossman & Tierney, 1998). However, these positive effects are contingent upon the formation of longstanding and meaningful relationships with youths. Unfortunately, national mentoring agencies such as Big Brothers/Big Sisters report that approximately 55% of matches terminate early and, moreover, that premature terminations can lead to further declines in functioning for at-risk youth (Grossman & Rhodes, 2002). Given the potential for harm within an agency designed to protect and assist vulnerable youths, efforts to screen out volunteers unlikely to fulfil their commitment and to quickly identify at-risk matches are crucial. This exploratory archival study within a Big Sisters affiliate of BB/BS represents the first attempt to predict match duration on the basis of information available at match onset. Results suggests that while the limited predictive accuracy of models does not warrant screening out potential volunteers, it is possible to enhance match formation as well as identify matches in need of extra supervision and support. In particular, attending to practical requests made by Big and Little Sisters (e.g., desire for a Big Sister with access to a vehicle; desire for a Little Sister within a particular age range) and matching dyads in terms of energy levels may prove simple and beneficial tools in matching. Stability also emerged as a critical underlying factor in the prediction of at-risk matches. For Little Sisters, elements of their family background, including family history of mental and physical illness and a recent move increased the risk of match termination. For Big Sisters, higher stability in terms of both residential and employment circumstances increased the average match duration. Promisingly, it also appeared to be the case that subjective ratings of how easily matchable the Big Sister is and ratings of match confidence were linked to match success. This suggests that counsellors may be able to identify at-risk matches at match onset by attending to the type of variables examined in this study. Secondary analyses strove to determine whether it is feasible to

predict premature match termination (i.e., termination prior to one year) on the basis of data available at match onset. Once again, meeting the Little Sister's request for a Big Sister with a vehicle emerged as a critical factor. Interestingly, some variation in the interests of Big and Littles had a positive impact on match duration, suggesting that both members of the match may appreciate exposure to new and different activities. Additionally, the Big Sisters level of education was important, with BS who had higher academic achievement being more likely to fulfil their match commitment of one year. Little Sister's abuse history also emerged as important. Little Sisters who had been exposed to abuse in the home were more likely to be involved in matches that terminated prior to one year. In sum, it appears that it is feasible, on the basis of information available at match onset, to identify matches that may present more of a challenge. Theoretically, interventions could be developed to assist such matches in building intimacy and establishing meaningful ties, decreasing the risk of potentially harmful premature match terminations and increasing match duration. That being said, it is unlikely that mentoring agencies will ever achieve a 100% retention rate for matches. Thus future research would usefully focus on the various ways in which matches terminate, with the goal of developing interventions to guide this process. It seems reasonable to argue that the negative impact of even a premature match termination may be lessened if it is handled appropriately.

REFERENCES

Abbott, D. A., Meredith, W. H., Self-Kelly, R., & Davis, M. E. (1997). The influence of a Big Brothers program on the adjustment of boys in single-parent families. *Journal of Psychology, 131,* 143-156.

Acitelli, L. K., Douvan, E. & Veroff, J. (1993). Perceptions of conflict in the first year of marriage: How important are similarity and understanding? *Journal of Social and Personal Relationships, 10,* 5-19.

Aiello, H. & Gatewood, T. (1989). The Glasgow mentor model: A program for at-risk middle grades students. *Mentoring International,* 3, 5-8.

Allen, T., Poteet, M. L., & Russell, J. E. A. (2000). Protégé selection by mentors: What makes the difference? *Organizational Behaviour, 21,* 271-282.

Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment (IPPA): Relationships to well-being in adolescence. *Journal of Youth and Adolescence, 5,* 427-454.

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61,* 226-244.

Berndt, T. J., & Perry, T. B. (1986). Children's perceptions of friendships as supportive relationships. *Developmental Psychology, 22,* 640-648.

Blechman, E. A. (1992). Mentors for high-risk minority youths: From effective communication to bicultural competence. *Journal of Clinical Child Psychology, 21,* 160-169.

Blechman, E. A. (1996). Coping, competence, and aggression prevention: Part 2. Universal school-based prevention. *Applied and Preventive Psychology, 5,* 19-35.

Blechman, E. A., Prinz, R. J., & Dumas, J. E. (1995). Coping, competence, and aggression prevention: Part 1. Developmental model. *Applied and Preventive Psychology, 4,* 211-232.

Blocher, K. M. (1993). Factors in sustaining adult voluntary mentoring relationships with at-risk youth. Dissertation (DAI-A 54/06, p.2052, Dec 1993).

Blum, R. W. & Rinehart, P. M. (1997). *Reducing the risk: Connection that make a difference in the lives of youth.* University of Minnesota Printing Services.

Bowlby, J. (1988). *A secure base.* New York: Basic Books.

Campbell, R. E., & O'Neill, P. (1985). Social support for single mothers: A study of Big Brothers/Big Sisters. *Canadian Journal of Community Mental Health, 4*, 81-87.

Cavell, T. A. and Hughes, J. N. (2000). Secondary prevention as context for assessing change processes in aggressive children. *Journal of School Psychology, 38*, 199-235.

Chapdelaine, A., Kenny, D.A., LaFontana, K. M. (1994). Matchmaker, matchmaker, Can you make me a match? Predicting liking between two unacquainted persons. *Journal of Personality and Social Psychology, 67*, 83-91.

Cohen, S. & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*, 310-357.

Cowen, E. L., & Work, W. C. (1988). Resilient children, psychological wellness, and primary prevention. *American Journal of Community Psychology, 16*, 591-607.

Davidson, W. S., Redner, R., Blakely, C. H., Mitchell, C.M., & Emshoff, J. G. (1987). Diversion of juvenile offenders: An experimental comparison. *Journal of Consulting and Clinical Psychology, 55*, 68-75.

DeJong, M. (2004). Metaphor and the mentoring process. *Child and Youth Care Forum, 33,* 3-17.

Dondero, G. M. (1997). Mentors: Beacons of hope. *Adolescence, 32*, 881-886.

Downey, G., Lebolt, A., Rincón, C., & Freitas, A. L. (1998). Rejection sensitivity and children's interpersonal difficulties. *Child Development, 69*, 1074-1092.

DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*, 157-197.

DuBois, D. L. & Neville, H. A. (1997). Youth mentoring: Investigation of relationships characteristics and perceived benefits. *Journal of Community Psychology, 25*, 227-234.

Edmondson, J.E., Holman, T.B., & Marshall, W. R. (1984). The need for and effectiveness of surrogate role models among single-parent children. *Journal of Primary Prevention, 5*, 111-123.

Einolf, L. H. (1995). Mentoring to prevent school drop-outs. *Journal of Behavioral Education, 5*, 447-459.

Frecknall, P. & Luks, A. (1992). An evaluation of parental assessment of the Big Brothers/Big Sisters program in New York City. *Adolescence, 27*, 715-718.

Freedman, M. (1992). *The kindness of strangers: Reflections on the mentoring movement.* Philadelphia: Public/Private Ventures.

Furano, K., Roaf, P. A., Styles, M. B., & Branch, A. Y. (1993). *Big Brother/Big Sisters: A study of program practices.* Philadelphia: Public/Private Ventures.

Galbo, J. J. (1984). Adolescents' perceptions of significant adults: A review of the literature. *Adolescence, XIX*, 951-970.

Galbo, J. J. (1986). Adolescents' perceptions of significant adults: Implications for the family, the school and youth serving agencies. *Children and Youth Services Review,8*, 37-51.

Gilligan, R. (1999). Enhancing the resilience of children and young people in public care by mentoring their talents and interests. *Child and Family Social Work, 4*, 187-196.

Gottmann, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family, 60*, 5-22.

Grossman, J. B., & Halpern-Felsher, B. L. (1993). *Research findings on the effectiveness of youth programming: Support for a developmental approach.* Philadelphia: Private/Public Ventures.

Grossman, J. B., & Johnson, A. (1999). Assessing the effectiveness of mentoring programs. In J. B. Grossman (Ed), *Contemporary issues in mentoring.* Philadelphia: Public/Private Ventures.

Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30*, 199-219.

Grossman, J. B., & Tierney, J. P. (1998). Does mentoring work? An impact study of the Big Brothers Big Sisters program. *Evaluation Review, 22,* 403-426.

Haensly, P. A., & Parsons, J. L. (1993). Creative, intellectual, and psychosocial development through mentorship. *Youth and Society, 25*, 202-221.

Harter, S. (1985). *Manual for the Self-Perception Profile for children.* Denver: University of Denver Press.

Hays, R. B., & Oxley, D. (1986).Social network development and functioning during a life transition. *Journal of Personality and Social Psychology, 50,* 305-313.

Healy, C. C., & Welchert, A. J. (1990). Mentoring relations: A definition to advance research and practice. *Educational Researcher, 19,* 17-21.

Hendry, L. B., Roberts, W., Glendinning, A., & Coleman, J. C. (1992). Adolescents' perceptions of significant individuals in their lives. *Journal of Adolescence, 15,* 255-170.

Herman, K. C. (1993). Enhancing screening for child and youth care work with problem-specific measures: An example with Big Brothers/Big Sisters volunteers. *Child & Youth care Forum, 22,* 459-476.

Herman, K. (1995). Appropriate use of the Child Abuse Potential Inventory in a Big Brothers/Big Sisters agency. *Journal of Social Science Research, 20,* 93-103.

Herman, K., & Usita, P. (1994a). Predicting Big Sisters/Big Brothers volunteer attrition with the 16PF. *Child and Youth Care Forum, 23,* 207-211.

Herman, K., & Usita, P. (1994b). Predictive validity of the 16 PF in screening volunteers for Big Brothers/Big Sisters. *Psychological Reports, 74,* 249-250.

Hines, M. H. (1988). Effect of the first year of matching on the self-esteem of big and little brothers. *Journal of Humanistic Education and Development, 27,* 61-70.

Hurley, L. P., & Lustbader, L. L. (1997). Project Support: Engaging children and families in the educational process. *Adolescence, 32,* 523-531.

Johnson, M. P., Caughlin, J. P., & Huston, T. L. (1999). The tripartite nature of marital commitment: Personal, moral, and structural reasons to stay married. *Journal of Marriage and the Family, 61,* 160-177.

Karcher, M. (2005). The effects of developmental mentoring and high school mentors' attendance on their younger mentees' self esteem, social skills, and connectedness. *Psychology in the Schools, 42,* 65-77.

Kohut, H., & Elson, M. (1987). *The Kohut seminars on* self psychology *and psychotherapy with adolescents and young adults.* New York: Norton & Co. Inc.

Lacković-Grgin, K., and Deković, M. (1990). The contribution of significant others to adolescents' self-esteem. *Adolescence, XXV,* 839 - 846.

Lakey, B., McCabe, K. M., Fisicaro, S. A., & Drew, J. B. (1996). Environmental and personal determinants of support perceptions: Three generalizability studies. *Journal of Personality and Social Psychology, 70*, 1270-1280.

Langhout, R. D., Rhodes, J. E., & Osborne, L. N. (2004). An exploratory study of youth mentoring in an urban context: Adolescents' perceptions of relationship styles. *Journal of Youth and Adolescence, 33*, 293-306.

Lerner, R. M., & Galambos, N. L. (1998). Adolescent development: Challenges and opportunities for research, programs, and policies. *Annual Review of Psychology, 49,* 413-446.

Luthar, S. S., & Zigler, E. (1991). Vulnerability and competence: A review of research on resilience in childhood. *American Journal of Orthopsychiatry, 61,* 6-22

Madia, B. P., & Lutz, C. J. (2004). Perceived similarity, expectation-reality discrepancies, and mentors' expressed intention to remain in Big Brothers/Big Sisters programs. *Journal of Applied Social Psychology, 34*, 598-623.

McLearn, K. T., Colasanto, D., Schoen, C., & Shapiro, M. Y. (1999). Mentoring matters: A national survey of adults mentoring young people. In J. B. Grossman (Ed.), *Contemporary issues in mentoring.* Philadelphia: Public/Private Ventures.

McPartland, J. M. & Nettles, S. M. (1991). Using community adults as advocates or mentors for at-risk middle school students: A two-year evaluation of Project RAISE. *American Journal of Education, August,* 568 - 586.

Mecartney, C. A., Styles, M. B., & Morrow, K. V. (1994). *Mentoring in the juvenile justice system: Findings from two pilot programs.* Philadelphia, PA: Public/Private Ventures.

Mech, E. V., Pryde, J. A., Rycraft, J. R. (1995). Mentors for adolescents in foster care. *Child and Adolescent Social Work Journal, 12*, 317-328.

Meissen, G. J., & Lounsbury, J. W. (1981). A comparison of expectations of volunteers, children, and parents in a Big Brother-Big Sister program. *Journal of Community Psychology, 9*, 250-256.

Morrow, K. V. & Styles, M. B. (1995). *Building relationships with youth in program settings: A study of Big Brothers/Big Sisters.* Philadelphia: Public/Private Ventures.

Murphy, L. B., & Moriarty, A. E. (1976). *Vulnerability, coping and growth from infancy to adolescence.* Oxford, England: Yale University Press.

O'Sullivan, C. M. (1991). The relationship between childhood mentors and resiliency in adult children of alcoholics. *Family Dynamics Addiction Quarterly, 1*, 46-59.

Parra, G. R., Dubois, D. L., Neville, H. A., Pugh-Lilly, A. O. (2002). Mentoring relationships for Youth: Investigation of a process-oriented model. *Journal of Community Psychology, 30*, 367-388.

Paterson, R. J., & Moran, G. (1988). Attachment theory, personality development, and psychotherapy. *Clinical Psychology Review, 8*, 611-636.

Resnick, M. D., Bearman, P.S., Blum, R. W. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on adolescent health. *Journal of the American Medical Association, 278*, 823-832.

Rhodes, J. E. (1994). Older and wiser: Mentoring relationships in childhood and adolescence. *Journal of Primary Prevention, 14*, 187-196.

Rhodes, J. E., Ebert, L., & Fischer, K. (1992). Natural mentors: An overlooked resource in the social networks of young, African American mothers. *American Journal of Community Psychology, 20*, 445-461.

Rhodes, J.E., Haight, W. L., & Briggs, E. C. (1999). The influence of mentoring on the peer relationships of foster youth in relative and nonrelative care. *Journal of Research on Adolescence, 9*, 185-201.

Rhodes, J.E., Reddy, R., & Grossman, J.B. (2005). The protective influence of mentoring on adolescents' substance use: Direct and indirect pathways. *Applied Developmental Science, 9*, 31-47.

Roberts, A., & Cotton, L. (1995). Note on assessing a mentor program. *Psychological Reports, 75*, 1369-1370.

Rodenhauser, P. (2000). Skills for mentors and protégés applicable to psychiatry. *Academic Psychiatry: The Journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry, 24*, 14-27.

Rogers, A. M., & Taylor, A. S. (1997). Intergenerational mentoring: A viable strategy for meeting the needs of vulnerable youth. *Journal of Gerontological Social Work, 28*, 125-140.

Rook, K. S. (1987). Social support versus companionship: Effects on life stress, loneliness, and evaluations by others. *Journal of Personality and Social Psychology, 52*, 1132-1147.

Rutter, M. (1986). Meyerian psychobiology, personality development, and the role of life experiences. *Journal of Psychiatry, 143*, 1077-1087.

Saintonge, S., Achille, P. A., Lachance, L. (1998). The influence of Big Brothers on the separation-individuation of adolescents from single-parent families. *Adolescence, 33*, 343-353.

Schneider, D. J., Hastorf, A.H., & Ellsworth, P.C. (1979). *Person perception.* New York: Random House.

Sipe, C. L. (1998). Mentoring adolescents: What have we learned? In J. B. Grossman (Ed.), *Contemporary issues in mentoring.* Philadelphia: Public/Private Ventures.

Slicker, E. K., & Palmer, D. J. (1993). Mentoring at-risk high school students: Evaluation of a school-based program. *The School Counsellor, 40*, 327-334.

Statistics Canada (2004). Alcohol and drug use in early adolescence. *Health Reports, 15.*

Taylor, A. S., LoSciuto, L., Fox, M., Hilbert, S. M., & Sonkowsky, M. (1999). The mentoring factor: Evaluation of the across ages' intergenerational approach to drug abuse. *Child and Youth Services, 20*, 77-99.

Taylor, L. (1982). The effects of a non-related adult friend on children of divorce. *Journal of Divorce, 5*, 67- 76.

Thompson, M. T. (1997). Understanding the essence of the relationship between big and little brother and sisters: A phenomenological study. *Journal of Child and Youth Care, 11*, 53-62.

Tierney, J. P., Grossman, J. B., & Resch, N. L. (1995). *Making a difference: An impact study of Big Brothers/Big Sisters.* Philadelphia: Public/Private Ventures.

Turner, S. & Scherman, A. (1996). Big Brothers: Impact on little brothers' self-concepts and behaviors. *Adolescence, 31*, 875-882.

Zagummy, M. J. (1993). Mentoring as a tool for change: A social learning perspective. *Organization Development Journal, 11*, 43-48.

APPENDICES

Appendix A

Important Note. The following materials should be included in each file prior to the onset of coding. Do not code files for which any of these materials are missing (except when only the LAC or BAC are missing). Each item will be referred to by the code denoted below to assist with the coding process.

FORMS FOR LITTLE SISTERS:

- Referral Form (this may be either an agency or family referral form) = RF
- Littles Activities Checklist - LAC
- Home Visit = HV

FORMS FOR BIG SISTERS:

- Big Sister Application = BA
- Big's Reference Letters (x2) = RL
- Big Interview = BI
- Counsellor's Impressions = CI
- Bigs Activity Checklist = BAC

BASIC CODING DIRECTIONS:

Each file is to be assigned a number. A master list which pairs these numbers with the names of Big and Little as well as the BS file number is to be kept separate from the data. Ensure that an accurate record is kept in the event that it is necessary to refer back to files for additional information.

There are three coding sheets: 1) LITTLES, 2) BIGS, and 3) MATCHES. Always begin with LITTLES data when coding files. Code BIGS information second. Use these materials to code the third MATCH data sheet. Do not begin coding LITTLES until you have read all applicable file information. Similarly, do not code BIGS or MATCHES until you have read all relevant file information. Coding should not be completed until the second read through. Complete coding for one entire file prior to beginning on a second.

As the final coding questions require that you code match "fit" you should note any relevant information as you read through the files to assist you in coding these items.

Refer to this manual as you code each variable to ensure accuracy and consistency in coding.

CODING MANUAL:

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
1	Age	Match Open Date on File - Birthdate on RF1	Code age AT THE TIME OF MATCH as opposed to the time of referral. Code in years and months (e.g., 14 years and four months = 14.04, using two digits to code month)
2	Grade	HV	Code grade AT THE TIME OF MATCH
3	Ethnicity	RF-4 If not specified here you may use RF1 (photo, language preference).	1 = Caucasian 2 = First Nations 3 = Asian 4 = Black 5 = Other (please specify) 0 = uncodable
4	Parenting Situation	RF-1/ HV (You may need to check who else lives in the home to answer this question).	1 = Single Mom 2 = Single Dad 3 = Two Parents (both natural) 4 = Two Parents (one of which is a stepparent) 5 = In Care – foster care/ group home 6 = Grandparents/extended family 7 = Adopted 8 = Unstable = back and forth between two or more of the above placements
5	Siblings at Home	RF-1	1 = YES - natural/adoptive/foster/step sibling currently living in the household at least half of the time 0 = NO – sibling(s) live elsewhere more than half the time; child lives in a group home; no siblings
6	Referral Source	RF 2	1 = Agency referral or suggestion (e.g., MCF, public health, mental health) 2 = Family referral 3 = School referral Note. If more than one source, code agency (first priority) and school (second priority) whenever these groups were involved in the referral process.
7	Mental Health Contact	RF2	1 = YES – child has had contact with mental health in the past (e.g., psychologist, psychiatrist, school counsellor) 0 = NO – no history of contact with mental health (If youth indicates that she talks to a counsellor this should be coded as 1 even if the referral source indicated no mental health contact).

V#	**LITTLE SISTER VARIABLES**	**SOURCE**	**DIRECTIONS FOR CODING**
	Variables 8 -30	**FROM CHECKLIST**	**Note. Older files may utilize a briefer checklist and some files contain no checklist ...to the extent possible, attempt to code listed concerns within the categories listed below. You should also go back to code any concerns that are later evident through the home visit, etc. #30 offers an opportunity to record additional concerns.**
8	Divorce/Separation	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
9	School - Academic Problems	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
10	School - Problems with Friends	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
11	Child/Family has moved recently	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
12	Drug/Alcohol Abuse – Child	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
13	Drug/Alcohol Abuse – parents/guardian	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
14	Drug/Alcohol Abuse – other family member	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
15	Physical/Sexual Abuse – Child	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
16	Physical/Sexual Abuse – Parent	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
17	Physical/Sexual Abuse – other family member	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
18	Sexual orientation/ confusion – the Child	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
19	Sexual Orientation/ Confusion – the Parent	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
	Variables 8 -30	**FROM CHECKLIST**	**Note. Older files may utilize a briefer checklist and some files contain no checklist ...to the extent possible, attempt to code listed concerns within the categories listed below. You should also go back to code any concerns that are later evident through the home visit, etc. #30 offers an opportunity to record additional concerns.**
20	Sexual Orientation/ Confusion – other family member	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
21	Involvement with the Police	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
22	Illness - Child	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
23	Illness – Family Member	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form) (Note. Do not code overall category but rather the specific complaints)
24	Death of Family Member	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
25	Fetal Alcohol Syndrome	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
26	ADD/Hyperactive	RF2- Checklist of Concerns	1 = YES (code if either or both ADD and hyperactive have been checked on the form) 0 = NO (code if neither ADD or hyperactive have been checked on the form)
27	Autism	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
28	Learning Disability	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
29	Behaviour Problems	RF2 – Checklist of Concerns	1 = YES (checked on form) 0 = NO (not checked on form)
30	Other	RF2 – Checklist of Concerns	Please use space in form to write any additional concerns which have been identified by the referral source. However, if these concerns can be easily captured under the above headings use these variables to code them.

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
31	Referral Sources' Expectations/Reasons for Referral	RF - 3	1 = FRIEND - Response indicating need for company - e.g., "dad isn't around"; "always with Mom"; "doesn't have any siblings"; "doesn't have many friends" OR Responses like: "to do activities she wouldn't normally do"; "to go on outings"; "needs extra attention". 2 = MENTOR – e.g., "role model"; "someone to talk about menstruation/puberty with"; "could learn from a role model how to deal with conflicts with peers"; "need stable model who doesn't have the same concerns that family does"; "learn new things; "someone to improve self esteem". If referral source mentions a specific problem that the youth needs help with this should be coded under "mentor". 3 = FRIEND and MENTOR – responses from both categories evident or responses that are not clearly codable as either friend or mentor (e.g., "needs a confidante"; "I would like someone to accept her unconditionally"; "share worries and ideas"; "for support")
32	Respite Referral	RF-3	1 = YES (referral form mentions some form of respite as a reason for the referral – e.g., to give Mom a break) 0 = NO (referral form does not mention respite)
33	Mention of particular value of having a FEMALE mentor	RF - 3	1 = YES - mention of value of female mentor (e.g., "one to one female role model"; "someone to talk about menstruation with") 0 = NO – no particular mention of value of female mentor
34	On Social Assistance	RF - 4	1 = YES 0 = NO 2 = No response
35	Employed	RF - 4	1 = YES 0 = NO 2 = No response
36	Income of Family	RF - 4	1 = less than $21 000 2 = $21 000 to $27 000 3 = $27 000 to $31 000 4 = $31 000 to $34 000 5 = $34 000 to 37 000 6 = more than $37 000 0 = No response
37	Little's Energy Level	LAC – top of form	1 = High 2 = Medium 3 = Low
38	Little's Interests	LAC – top of form	1 = Outdoor Person 2 = Indoor Person 3 = Both (always code 3 when BOTH is checked, even if INDOOR or OUTDOOR have also been checked)

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
39	Little's OPENNESS	LAC	Count 1 pt each for YES activities and 0.5 for MAYBE's
40	Little wants Big	**HV	1 = Definite YES 2 = Some hesitation (e.g., "not sure"; "I guess"; "Mom says I should"; "don't know") 3 = NO
41	Peer Relations	HV – FRIENDS questions, RF – checklist of concerns as well as written comments	1 = GOOD – Not listed as a concern by referral source or youth. Examples: ▪ Youth reports she has "lots of friends"; "a best friend"; can easily name activities she engages in with friends; doesn't wish she had more friends; reports that kids treat her well. ▪ Referral source indicates that youth is "really friendly and well adjusted" 2 = MODERATE – some inconsistency between RF and HV; identification of some difficulties but youth reports having some good friendships. Examples: ▪ Referral Source indicates that youth had difficulty last year with peers and seeks attention through negative behaviour. Little reports that friendships are good though does acknowledge that she sometimes has difficulties making new friends. ▪ Youth indicates that some kids make fun of her but for the most part states that friendships are good. ▪ Youth says she has an easier time being friends with boys and is a little shy but denies wanting more friends ▪ Mom reports that youth is insecure sometimes and youth identifies friends but cannot list anything specific that she likes about her friends 3 = POOR – both RF and youth indicate significant difficulties with peer relations. Examples: ▪ Referral source indicates that youth "needs help in conflict resolution"; "doesn't have some of the social skills to deal with things". Nothing to refute this evident in Home Visit. ▪ Youth identifies bullies as something she would like to change about school and has little to offer about her friendships; referral source indicates that problems with peers is an issue ▪ Youth reports she feels sad when classmates hurt her feelings or when someone hits her and there exists other evidence of a serious bullying issue.

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
			Note. Sometimes the referral source may indicate dramatic difficulties with friends, e.g., "social ostracization" but youth reports having friends. Keep in mind that youth may attempt to minimize problems or may lack self awareness. For the most part these instances will be coded as a 2 (i.e., inconsistency in reports) but on occasion you may justifiably code a 3 when the RF provides extreme reports of problems and there exists some evidence in the Little's report to suggest this is closer to the reality.
42	Youth's use of Support Systems	HV – PERSONALITY/ FEELINGS	1 = YES – code if youth is able to identify someone she can talk to 0 = NO – code if youth is unable to identify anyone she can talk to about problems.
43	History of Family Relationship	HV – Family; RF	1 = GOOD RELATIONSHIP – no significant concerns noted ▪ very close with family ▪ some rebellion or sibling rivalry but generally close ▪ parent(s) have been responsible, stable and caring 2 = MODERATE RELATIONSHIP ▪ Significant problems with one parent but excellent relationship with other parent ▪ Significant behavioural problems ▪ Child sad about divorce 3 = POOR RELATIONSHIP ▪ History of abuse (witnessed or experienced) ▪ Child in and out of foster care ▪ One or both parents abuse substances
44	Current Family Relationships	HV – Family; RF	1 = GOOD RELATIONSHIP – no significant concerns noted ▪ very close with family ▪ some rebellion or sibling rivalry but generally close ▪ parent(s) are responsible, stable and caring 2 = MODERATE RELATIONSHIP ▪ Significant problems with one parent but excellent relationship with other parent ▪ Significant behavioural problems ▪ Child sad about divorce 3 = POOR RELATIONSHIP ▪ Abuse (witnessed or experienced) ▪ Child in and out of foster care ▪ One or both parents abuse substances ▪ Serious behavioural problems

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
	Variables 45-48	**HV**	**Used to code Matching sheet – please keep a note of age range specified to see whether it is a match with Big**
45	Age Preference	HV	1 = Specific age range noted 2 = Doesn't Matter
46	Colour/Race Preference (CODE if preference is expressed by either Little or parent)	HV	1 = Caucasian 2 = First Nations 3 = Asian 4 = Black 5 = Other 6 = Doesn't Matter
47	Marital Status Preference	HV	1 = Single 2 = Married 3 = Doesn't Matter
48	Transportation Preference	HV	1 = Car Preferred 2 = Doesn't Matter
49	Little's Personality	HV -Counselors' initial and final impressions	1 = More Extraverted – e.g., "Chatty/talkative"; "Outgoing, warm, friendly, smiley"; "active, fun, enthusiastic" 2 = Not clearly Introverted or Extraverted 3 = More Introverted – "shy – difficulty making eye contact"; Quiet

V#	LITTLE SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
50	Match Impression	HV – final statements	1 = NO POTENTIAL CONSTRAINTS NOTED EXAMPLES: ▪ "any personality type is good" ▪ "well adjusted, kind, thoughtful, calm, and courteous – independent personality and gives a lot of thought to things" ▪ friendly, mature, thoughtful, gentle, polite – excited about getting a Big 2 = SOME POTENTIAL CONSTRAINTS NOTED Examples: ▪ "very shy"; "uncomfortable"; "unclear about commitment but later called to say yes" ▪ sweet kid but will demand a lot of attention – will need a big with nrg! ▪ sweet kid with difficult home life ▪ may need to be aware of possible sabotage by Mom ▪ worries about adults in her life ▪ delightful and easygoing but quite sensitive – will need a Big who is very gentle with her ▪ Wonder whether age of Big might not be a concern for her as she is so young ▪ Big needs to be someone who won't be triggered by the initial shyness and someone who can draw out her little ▪ chatty and someone with a strong personality who is used to having her own way – will need a Big who is able to set boundaries and be firm ▪ this may also include home/family situations that could potentially interfere with the match (e.g., possible sabotage by parent)

V#	BIG SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
51	Age	BA 1/File Folder Match Date – Birth Date	Code exact age at time of Match (years and months, using two digits to code months)
52	Ethnicity	BA –1	1 = Caucasian 2 = First Nations 3 = Asian 4 = Black 5 = Other (please specify) 6 = uncodable
53	Big's Job Stability	BA-1- Length of time in job	Code actual length of time at present job in years and months (e.g., 2.04 = 2 years and four mos). If Big is not employed code 0. If Big reports two or more jobs, code the job of longest duration. If a nondrastic job switch was made within the same company (e.g., a promotion), code the length of time with the company.
54	Big's Home Stability	BA-1 – Length of time at present address	Code actual length of time at present address (years and months – as above)
55	Marital Status	BA-2	1 = Single 2 = Married 3 = Common Law 4 = Divorced 5 = Widowed 6 = Separated
56	Own Kids	BA-2	1 = YES 0 = NO
57	Educational Background	BA - 4	1 = < highschool 2 = highschool 3 = some post secondary 4 = completed post secondary 5 = Graduate Studies 6= Trade or Vocation
58	Big has Car	BA8 – bottom of page	1 = YES (Big has access to a vehicle) 0 = NO (Big has no access to a vehicle)
59	Big's Energy Level	BAC – top of form	1 = High 2 = Medium 3 = Low
60	Big's Interests	BAC – top of form	1 = Outdoor Person 2 = Indoor Person 3 = Both (always Code 3 when BOTH is checked, even if OUTDOOR or INDOOR are also checked)
61	Big's OPENNESS	BAC	Count 1 pt each for YES activities and 0.5 for MAYBE's
62	Type of Little - Openness	RF 8 Type of Little Checklist – be sure to also include family issues in coding this variable	Count 1 pt each for YES checks and 0.5 for CONSIDER checks RECORD BOTH NUMBERS. Be sure to note total number of items on form as forms change. e.g., 10Y, 2C/20

V#	BIG SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
63	Expect Match to last > one year	SI – Motivation Section	1 = Yes 2 = Maybe (should be coded if Big responds with "Yes if…" 3 = No
64	Big's Motivation	BA 2; SI – Why do you want to become a Big?	1 = INTERNAL ONLY (e.g., fill a gap) EXAMPLES: ▪ in foster care myself and want to give back ▪ "I know what it feels like not to have had a sibling – I want to fill that gap for a child" ▪ can't have kids of my own ▪ empty nester ▪ miss my own family ▪ get "kid fix" 2 = EXTERNAL ONLY Examples: ▪ support healthy secure environment for kids ▪ give child someone to talk to or an escape to a different environment ▪ love kids, enjoy sharing time, can offer stability, honesty ▪ time to spare, lots of hobbies and ideas that would be fun to share with a young person ▪ to get more involved in the community ▪ be a role model, build a trusting relationship ▪ want to make a difference in the life of a child 3 = BOTH INTERNAL AND EXTERNAL REASONS NOTED
65	Developmental versus Prescriptive	SI – Motivation; Role/Philosophy of Big Sisters; Scenarios BA – View of childhood, etc.	**1 2 3 4 5** Code on a scale from 1-5 with 1 being more Prescriptive and 5 being more Developmental. Refer to Appendix B for a complete description of this variable and review prior to coding each file.

V#	BIG SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
66	Current Relationship with Peers	SI, BA, RL	1 = GOOD RELATIONSHIP – no significant concerns noted ▪ describes close and supportive friendships ▪ references may note positive friendships 2 = MODERATE RELATIONSHIP ▪ Some minor difficulty with friendships as noted by Big or by references (e.g., would like to have more friends, no one to talk to for support). 3 = POOR RELATIONSHIP ▪ Big and/or reference note significant difficulties with peers (e.g., few or no friends, difficulty getting along with others, will not ask for help/support in crisis situations).
67	History of Relationship with Parents/Family	BA – 4; SI – FAMILY section	1 = GOOD RELATIONSHIP – no significant concerns noted ▪ always been very close with family ▪ some rebellion but still remained close ▪ strong relationship with both parents though they did divorce 2 = MODERATE RELATIONSHIP ▪ Significant problems with one parent but excellent relationship with other parent ▪ Big mentions some difficulties with relationship with parents but notes that they also had good periods. 3 = POOR RELATIONSHIP ▪ e.g., Mom overprotective and constantly depressed; lots of anger; domestic violence; abuse ▪ in and out of foster care throughout childhood

V#	BIG SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
68	**Current** Relationship with Family	BA – 4; SI – FAMILY section	1 = GOOD RELATIONSHIP – no significant concerns noted ▪ very close with family ▪ have worked through any difficulties 2 = MODERATE RELATIONSHIP ▪ Significant problems with one parent but excellent relationship with other parent ▪ Big mentions some difficulties with relationship with parents but notes that they also had good periods. 3 = POOR RELATIONSHIP ▪ Big avoids contact with family ▪ Contact with family is conflictual
69	Big's Hty of Mental Health Concerns	SI – HEALTH section; RL	1 = YES - History of mental health concerns noted 0 = NO – No history of mental health concerns noted
70	History of Depressed Affect	SI – HEALTH section; RL	1 = YES 0 = NO
71	History of Suicidality	SI – HEALTH section; RL	1 = YES (includes thoughts of suicide) 0 = NO
72	Current Mental Health Concerns	SI – Health; RL	1 = YES 0 = NO
73	Match Impression	SI– final statements; RL	1 = NO CONSTRAINTS NOTED EXAMPLES: ▪ very grounded and interested, lot of experience including with special needs kids. Would do well with any personality type. No reservations. ▪ very easygoing and pleasant person, very optimistic and enthusiastic, sincerity and dedication in all that she does. Will make a wonderful Big and totally recommend her. ▪ can handle challenges – especially requested an at-risk youth 2 = SOME CONSTRAINTS NOTED Examples: ▪ positive, fun, outgoing and open – would make a great Big to a relatively straightforward and enthusiastic child ▪ well grounded, more suited to Little with no major challenges ▪ cleanliness is a trigger so keep this in mind ▪ no match with a child who is in an abusive situation ▪ don't match with family that has alcoholism as a problem Notes. Do not code availability for max. of one year as a constraint. Do not code lack of a car as a constraint

V#	BIG SISTER VARIABLES	SOURCE	DIRECTIONS FOR CODING
74	Big's Personality	SI – final statements, RL, BA	1 = More extraverted • is described as social, having many friends, interested in a wide variety of activities, "fun", "easy going", was easy to engage and talkative during SI 2 = Not clearly introverted or extraverted 3 = More introverted • is described as "quiet", prefers to do things alone or in small groups, may stick to a select few activities and is reluctant to venture out of safety zone, possibly difficult to engage during SI

****** CODE ONLY VARIABLES 84-91 ******

V#	MATCH VARIABLES	SOURCE	DIRECTIONS FOR CODING
75	Ethnicity	Compare variables 3 and 49 RF 4; BA -1	1 = MATCH (same race match) 0 = NO MATCH (cross-race match)
76	Ethnicity Requested	Compare variables 43 and 49	1 = Match – Big's race/colour fits with Little's request or Little states "doesn't matter". 0 = NO Match – Big's race/colour is other than that requested
77	Age	Subtract variable 1 from variable 48	Code actual difference in years
78	Marital Status Requested by Little	Variables 44, 52	1 = MATCH (includes "doesn't matter" response) 0 = NO Match
79	Energy Level	Variables 36, 55	1 = MATCH 0 = NO MATCH
80	Interests	Variables 37, 56	1 = MATCH (if either Little or Big codes 3 (like both) this should be coded as a match) 0 = NO MATCH
81	Openness	Variable 38 - 57	Code exact number (with +/- sign)
82	Transportation Requested by Little	Variable 45 and Variable 56	1 = MATCH (includes "doesn't matter" responses) 0 = NO MATCH
84	Desired Age Range Requested by Little	Compare variables 42 and 48	1 = Matches age range of Big (includes "doesn't matter" responses) 0 = NO Match – Big's age is other than that requested by Little
85	Desired Age Requested by Big	BA-8 (top of page)/Variable 1	1 = MATCH (includes "doesn't matter" responses) 0 = NO MATCH
86	Impression of Match Fit	RATER'S IMPRESSION OF MATCH FIT (please be sure to attend to statements made about a desire to avoid certain circumstances as much as match variables).	**1 2 3 4 5** **Major Concerns Moderate Concerns No Concerns** This variable should be rated RELATIVE to all other matches you are familiar with.
87	Confidence in Match	Rater's Impression	0% - 100% Code your confidence that this match will make it to the one year mark.
88	Counsellor	File	***Names omitted for confidentiality purposes.*** **Also note with * whether there was a combination of counsellors involved (e.g., one counsellor screened the Little while another counsellor screened the Big).**
89	Little Application Date	RF – stamped date	
90	Big Application Date	BA – stamped date	
91	Match Onset Date	On File folder	

Appendix B

The following table consists of information summarized from Morrow and Style's (1995) qualitative research and outlines two opposing approaches to mentoring youths. Carefully read through all available file information with a particular focus on Bigs' responses to interview and application questions (specifically those querying motivation for wishing to become a Big Sister and expectations of the match) to rate Developmental vs. Prescriptive item on a scale from 1-5 with higher scores indicating a more developmental approach and lower scores indicating a more prescriptive approach.

DEVELOPMENTAL	PRESCRIPTIVE
• wishes to provide youth with opportunities and supports they might be missing due to absent parent • takes responsibility for building and maintaining match • wishes to act as sibling, supportive friend, companion • emphasizes the "friendship" aspect • focuses on a sense of equality and mutual enjoyment • feels that the relationship itself will be of benefit to youth and places a high value on keeping it going • cautious about stepping into authoritarian role – no lecturing • will take a "hands off" approach when it came to the explicit transmission of values • advice giving is kept to a minimum • understands that positive feedback from youth will not always be forthcoming and does not expect this • primary goal is to build a strong connection • will involve youth in decision making about activities • intends to focus on fun activities • will respect limits on how much youth wants to reveal • will accept youths' shyness and reluctance to talk • will assure youths of confidentiality	• primary purpose is to be transformative – to guide youth into new values, attitudes and behaviours • sets goals for youth and will focus relationship on achieving those goals • expects to see improvements in grades, manners, school behaviour, etc. • expects youths to share responsibility for contact • intends to act firstly as a parent or teacher and only secondarily as a peer or friend • will try to exert her influence to achieve aims she set for youths • wants feedback from youths about relationship • views close relationship as a means to other outcomes and not important in and of itself • would reprimand youths or lecture them • feels that fun activities should be used only as rewards for improvements • believe in trying to instill values of responsibility and hard work • will not involve youths in decision making about activities • believes in pushing youths for disclosure • takes responsibility for intervening in family problems or is judgmental about particular parenting styles

Appendix C

Interrater Reliability (n= 50) – Kappa

Variable	Observed Agreement	Chance Agreement	Kappa[1]	95% Confidence Interval
Little Sister Variables				
Parenting situation	.727	.286	.618	.474 - .762
Referral source*	.688	.397	.483	.293 - .672
Illness of Child°	.846	.717	.455	.151 - .760
Illness in Family	.845	.386	.747	.601 - .894
Death of Someone Close	.942	.714	.798	.575 - 1.022
Referral Source Expectations°	.664	.346	.485	.290 - .680
Respite Referral°	.654	.528	.266	.066 - .467
Family on Social Assistance	.924	.368	.879	.765 - .994
Guardian employed	.832	.334	.747	.597 - .897
Family Income	1.00	.279	.689	.559 - .820
Interests	1.00	.578	.865	.717 - 1.012
Mental Health	.942	.507	.883	.752 - 1.014
Divorce in family*	.745	.569	.408	.134 - .682
Academic Problems	.942	.740	.778	.533 - 1.024
Problems with friends	.865	.622	.644	.402 - .886
Behaviour Problems	.942	.689	.815	.609 - 1.020
Moved recently	.885	.678	.642	.375 - .910
Drug/Alcohol Issues - Parent	.962	.635	.895	.749 - 1.040
Drug/Alcohol Issues – Other Family	1.00	.858	.865	.598 - 1.131
Victim of Abuse	.962	.655	.888	.734 - 1.043
Witness Abuse - Parents	.923	.840	.519	.106 - .931
Witness Abuse – Other Family	.962	.908	.581	.046 - 1.115
Police Involvement	1.00	.926	.740	.240 - 1.240
Preference for BS with Vehicle	.939	.509	.875	.736 - 1.014
Age preference for BS	.759	.347	.631	.467 - .795
Marital Status Preference for BS	1.00	.678	.823	.634 - 1.011

Variable	Observed Agreement	Chance Agreement	Kappa[1]	95% Confidence Interval
Big Sister Variables				
Married	1.00	.356	.751	.615 - .888
Education	.845	.403	.740	.590 - .889
Own Children	.962	.874	.694	.287 - 1.101
Access to Vehicle	.942	.606	.854	.691 - 1.017
History of Mental Health Concerns	.912	.561	.799	.580 - 1.018
History of Depression	.912	.609	.774	.529 - 1.019
History of Suicidality	1.00	.839	.817	.461 - 1.173
Current Mental Health Concerns°	.923	.908	.161	-.331 - .653
Energy Level	.927	.460	.864	.736 - .992
Peer Relationships	.920	.940	.380	.108 - .652
Interests	.908	.740	.647	.371 - .922
Intention to remain in match >1yr°	.783	.518	.550	.293 - .806
Motivation°	.596	.499	.194	-.029 - .417
Match Variables				
Little's Age Request	.962	.753	.844	.630 - 1.059
Big's Age Request	.920	.716	.718	.456 - .980

[1] To stablize the estimates of the Kappas and their standard errors, 0.5 was added to each cell of all tables.

° Variables omitted from further analyses due to low interrater reliability.

* Variables re-examined and edited due to low interrater reliability – database information utilized.

Interrater Reliability – ICC

Little Sister Variables	ICC	Confidence Interval
Energy Level	.862	.763-.920
Peer Relations	.686	.505 - .809
History of Family Relations	.745	.590-.846
Current Family Relations	.632	.424 - .775
Personality	.634	.434 - .774
Big Sister Variables		
Length of time in last job	.990	.982 - .995
Length of time in last home	.963	.936-.979
Energy Level	.960	.930 -.977
Developmental vs. Prescriptive Focus	.479	.235 - .667
History of Family Relationships	.710	.535-.826
Current Family Relationships	.697	.507-.820
Peer Relationships		
Personality	.642	.398 -.800
Match Variables		
Match Fit (1-5)	.661	.471-.793
Match Confidence (0-100%)	.595	.380-.750