

Running Head: FRIEND, FOE, OR BOTH? A RETROSPECTIVE EXPLORATION

Friend, foe, or both? A retrospective exploration of sibling relationships in elite youth
sport

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Abstract

With the abundance of literature focusing on parental influence in sport, it is important to identify family dynamics that extend beyond parents to include siblings. In this study, sibling influence was explored through interviews with previously identified elite youth female athletes (N=4) and their sibling (N=4) of the same sex who participated in the same sport. The purpose was to discover how siblings influence sport participation and how parents influence sibling relationships, retrospectively. Three categories emerged from the data: positive experiences participating in the same sport, negative experiences participating in the same sport, and perception of the parental role. The participants' descriptions coincide with observational learning and both deidentification and divergence processes. The data adds to the probable sibling and parent experiences proposed in the Developmental Model of Sport Participation and provides insight for athletes, parents, and coaches on how to manage sibling relations in sport.

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Chapter 1: Introduction

Sibling relationships are complex. From academic performance to sport participation, some siblings feel as though they are locked into a lifelong competition. In sport, there are many sibling athletes who are required to compete against one another. The Williams sisters in tennis, the Manning brothers in American football, and the Dufour-Lapointe sisters (who won both gold and silver medals in the moguls for Canada at the 2014 Sochi Winter Olympics), are examples of siblings who have seemed to navigate through this relationship with success. Despite the success of these pairs, sibling relationships can often lead to jealousy, competition and rivalry (Fraser-Thomas, Strachan, & Jeffery-Tosoni, 2013). Sibling influence in sport is a contextual factor that lacks investigation and must be explored further.

The social context influencing children's participation in sport consists of the child, the coach, and the family environment (Scanlan & Lewthwaite, 1988). The "child-other relation is the basic feature of the developmental-contextual relations that characterize the social creature we call a human being" (Bronfenbrenner, 2002, p. 203). Given the importance of child-other relations, it is crucial that the relationships most central in a child-athlete's life be explored (Fraser-Thomas et al., 2013). In the past two decades, research has offered an understanding on how specific parenting styles and behaviours are associated with diverse outcomes in the development of youth athletes. However, little research has explored the roles that siblings may have on youth athletes', specifically elite youth athletes' sport participation and development (Fraser-Thomas et al., 2013).

Siblings have the potential to influence social, behavioural, and cognitive

development across a variety of achievement domains (Brody, 1998). Further, “the sibling relationship has great significance as a contributor to family harmony or disharmony and to the patterns that individual children’s development takes within the family” (Brody, 1998, p. 2). There has been little research to explore sibling relationships in achievement domains such as, education and sport. Earlier work focused on variables including, sibling age separation, sibling activity diversification, birth order, and factors that play a role in children’s emotional and social development (Brody et al., 1985; Furman & Buhrmester, 1985a, 1985b; Brody, 1998). In the past decades, however, there has been a growing interest in the area of family dynamics and problems within sibling relationships.

The purpose of this study is to gain insight into how siblings influence elite youth athletes’ sport participation. Further, the objective is to discover how parents influence the sibling relationship and to further explore the probable sibling and parent influences suggested in the Developmental Model of Sport Participation (Fraser-Thomas et al., 2013). Therefore, this study seeks to answer the following questions: 1) How do siblings influence an elite youth athlete’s sport participation? 2) How do parents influence the sibling relationship in sport? For the purposes of this research, an elite youth athlete comprised the following characteristics: 1) the athlete was 12-17 years of age, 2) the athlete participated for a minimum of 20 hours per week in their respective sport, 3) the athlete competed at a provincial and/or national level in their sport, and 4) the athlete trained and competed with a provincial sport club and/or organization.

This review of literature will focus on two contextual factors (i.e., parents and siblings) present in elite youth sport experiences. Literature pertaining to the parent-

athlete dyad is critical to explore as parents play a crucial role in their children's sport development and experiences. First, the Developmental Model of Sport Participation (DMSP: Côté, 1999) will be used to explore the parent-athlete dyad. Further, the various classifications of parental involvement in youth sport (i.e., parents' tangible support, parents' emotional and informational support, and parent modelling) will be identified. In addition, literature focusing on the complex influence siblings may have throughout children's school and sport experiences will be explored and compared. Sibling theories including observational learning theory (Mischel, 1966), deidentification theory (Ansbacher & Ansbacher, 1956) and sibling divergence (Darwin, 1859; Sulloway, 1996) will be used as frameworks to help understand the child-sibling relationship. In addition, research regarding positive influences and outcomes among siblings (i.e., emotional and instructional support) and negative influences and outcomes among siblings (i.e., affective responses to sibling competition in school and sport) will be reviewed. Lastly, in Fraser-Thomas, Strachan, and Jeffery-Tosoni's (2013) work, the idea of integrating family influence into the DMSP is presented. These links need to be empirically tested, however, this integration will be explored.

Chapter 2: Review of Literature

In Canada, 75% of children ages 5-14 participate in organized sport (Statistics Canada, 2011). Sport in the lives of youth is an essential and integral part of education and of individual and social development (United Nations Educational, Scientific and Cultural Organization, 1999). It has also been found that sport can create an opportunity for children's development and through sport youth have the potential to accomplish three important objectives in their development (Côté & Fraser-Thomas, 2011). First, sport programs provide youth with the opportunity to be physically active, leading to improved physical health and wellness. Second, youth sport programs have been found to be important in developing psychosocial skills as well as providing children with opportunities to learn important life skills such as leadership, cooperation, and discipline. Lastly, youth sport programs introduce various motor skills to children. These motor skills serve as a foundation for both high performing and recreational athletes (Côté & Fraser-Thomas, 2011).

Youth sport involvement leads to a variety of positive outcomes across physical, psychological, and social health domains. Various positive outcomes have been reported to occur such as: increased health, increased self-esteem and confidence, commitment, friendships, discipline, teamwork, and competence (Fraser-Thomas, Côté & Deakin, 2008; Côté & Fraser-Thomas, 2011). However, more and more frequently research is investigating the negative outcomes related to youth-sport experiences. Similar to the positive outcomes related to youth sport, these negative outcomes span across the physical, psychological, and social health domains. Research relating to insensitive coaches, decreased self-esteem and confidence, psychological effects of dealing with

injuries, and pressure from family members (Fraser-Thomas et al., 2008) is becoming more prevalent.

With family influence becoming a more prominent area of research, many key models and conceptual frameworks have been developed to examine and account for the influence parents have on their children's sport participation and development. Côté's (1999) Developmental Model of Sport Participation (DMSP), which advances Bloom's (1985) seminal work on developing talent in young people, has become quite a prevalent model when analyzing children's development in sport. In the following section, both Bloom (1985) and Côté's (1999) models will be reviewed in relation to parents' influence on children's sport participation and development. Further, past classifications of parental involvement will be explored to gain an in depth understanding of the complexity of the parent-athlete dyad.

Sport Development

Bloom (1985) suggested that children's talent development occurs in three phases of learning including: 1) the early years, 2) the middle years, and 3) the later years. The early years is characterized by a period of instruction. This includes having a teacher who makes the field interesting and rewarding (Bloom, 1985). During the early years, much teaching and learning is centred on deliberate play, with the goal for children to discover and explore on their own. Bloom (1985) found that motivation, support and encouragement in the home and by teachers made children more devoted to their practice. In the early years, it was also found that children began to identify themselves in terms of the talent field they were associated with. During the middle years, talent development increases. Teachers place higher expectations on their students and students are expected

to put the talent field above all other activities. Total commitment is necessary at this level as students are expected to put in a minimum of twenty-five hours per week into practice and preparation (Bloom, 1985). Further, in this phase, the student must take responsibility for his/her efforts and work towards the highest goal in their field (Bloom, 1985). During the later years, the emphasis is placed on perfecting the talent at the highest level possible by fully committing to the talent field, optimizing talent development (Bloom, 1985).

Many researchers have used Bloom and colleagues (1985) findings as a basis to understand and further research on talented young people. For example, based on the observations of Bloom and colleagues (1985), Salmela (1994) proposed three phases in which career development consists of, including: (a) initiation, (b) development, and (c) mastery. During the initiation phase, children begin to get involved in sport with the focus being on enjoyment and fulfillment. In the development phase, children begin to increase their commitment to sport, focusing on improving skills and techniques. Athletes at the mastery phase show responsibility and independence while taking part in high-level competitions (Salmela, 1994; Wuerth, Lee, & Alfermann, 2004). In addition, Côté's (1999) Developmental Model of Sport Participation (DMSP) advanced Bloom's (1985) work on talented young people, by providing an increased understanding on the psychosocial influences throughout child-athletes' development. The DMSP proposes that athletes pass through three stages of sport development including: 1) the sampling years, 2) the specializing years, and 3) the investment years. Athletes participate in a variety of sports during the sampling years (age 6–12), and a decreasing number of sports during the specializing (age 13–15) and investment years (age 16+). Further, the DMSP

model suggests that athletes engage in deliberate play activities during the sampling years, which includes less structured activities, designed to maximize inherent enjoyment and do not focus on deliberate practice activities, which are activities that are highly structured, require effort, generate no immediate rewards, and are motivated by the goal of improving performance until the specializing and investment years (Côté, 1999; Côté & Hay, 2002).

Côté & Fraser-Thomas (2011) furthered this research by proposing that athletes pass through three sport participation trajectories including: 1) recreational participation through sampling, 2) elite performance through sampling, and 3) elite performance through early specialization. After the sampling years, sport participants can choose to either stay involved in sport at a recreational level or embark on a path that focuses primarily on high performance. In the first trajectory, athletes participate in a variety of sports including large quantities of deliberate play activities, with the main goal being enjoyment and health (Côté & Fraser-Thomas, 2011). The second trajectory suggests that specializing begins around age 13, after the sampling years. This trajectory is for youth interested in a more performance-oriented path (Côté & Fraser-Thomas, 2011). During the specializing years, athletes begin to decrease the amount of sports they are involved in and it is in the investment years (16+) that youth commit to a single sport at the elite level (Côté & Fraser-Thomas, 2011). Although these models analyze sport participation at an individual level, it is important to explore these factors in the context of parents as well.

Bloom and colleagues (1985) highlight the major influence of the family at the different stages of talent development in athletics, science and art. It was found that

parents tended to be supportive in the early years of their children's involvement in activities. However, in the later years the parents' role was more restricted, consisting mainly of financial support as the individual commits to improving performance on his or her own (Bloom, 1985). Bloom and colleagues (1985) provided a developmental perspective on the influence of family through the different stages of talent development. Drawing on Bloom's work, Salmela (1994) found that during the initiation phase, it is the parents' responsibility to initiate the sport activity and to act as their children's main supporters (Salmela, 1994; Ewing, 1999). It is within this phase that parents fundamentally influence how their children perceive sport. In the development phase, parents are expected to continue to support their child in sport, as the athlete tends to become more reliant on their coach during this phase (Salmela, 1994; Wuerth et al., 2004).

In addition, Côté and colleagues' work emphasizes that parents' roles continually change throughout their children's sport development. Specifically, in trajectory 1, it is the parents' responsibility to introduce their child to sport, to provide leadership through role modelling, and to provide their children with the necessary resources and equipment to get involved (Côté & Fraser-Thomas, 2011). Further, in trajectory 2, parents become less involved but provide financial and emotional support by helping their children through challenges and obstacles. Essentially, parents progress from a leadership role during the sampling years to a following and supporting role during the specializing and investment years (Côté, 1999).

Parental Support in Youth Sport

Fraser-Thomas and colleagues (2013) point out that "a key challenge in studying

parents' involvement in their children's sport development relates to recognizing and identifying the multiple means by which parents may influence their children's sport involvement" (p. 4). Various typologies for parental support (Côté & Hay, 2002) and classifications of parental involvement (Côté & Hay, 2002; Fredricks & Eccles, 2004) have come into existence. Côté and Hay (2002) proposed a typology emphasizing four dimensions of parental support, including: 1) emotional support, including behaviours that provide support and comfort, ultimately enhancing children's self-confidence and self-esteem, 2) informational support, including behaviours that provide guidance and/or instruction, 3) tangible support, including physical and practical resources for children's involvement, and 4) companionship or network support, including support regarding the child's sport participation (Côté & Hay, 2002).

In addition, in Fredricks and Eccles' (2004) empirical study it was found that parents' involvement can be categorized into three themes, including: 1) provider (i.e., creating opportunities and making them available through transportation, finances, etc.), 2) interpreter (i.e., demonstrating positive values and encouragement), and 3) role model (i.e., influencing children towards positive sport participation). Both Côté and Hay (2002) and Fredricks and Eccles' (2004) concepts used to classify parental involvement in youth sport settings may overlap. From both early (Côté & Hay, 2002; Fredricks & Eccles, 2004) and recent (Côté & Fraser-Thomas, 2011; Fraser-Thomas et al., 2013) research, it is evident that parents' level of involvement, parents' sport-related feedback, parenting style and parents' tangible support are among the most common areas of research under investigation.

Parents' level of involvement. Over the past two decades, there has been an

abundance of research investigating optimal amount of parental involvement in their children's sport participation. In Averill and Power's (1995) quantitative study, parents' level of involvement in their children's sport participation was measured. It was found that moderate levels of involvement were preferred over high levels of involvement in their children's sport and that their children's cooperation in sport increased as parents' levels of involvement decreased (Averill & Power, 1995). Given its use of quantitative measures, this particular study did not provide insight into what facilitated the participant's perceptions. Drawing on Averill and Power's (1995) research, Stein, Raedeke, and Glenn (1999) used a mixed methods approach and found that most parents were involved at a moderate level in their children's sport, which was considered an optimal degree of involvement by the youth athletes in their study. Some gender differences among parents were noted. It was found that fathers, who were too involved, exuded stress on the athletes, whereas athletes with mothers who were overly involved had more pleasing experiences (Averill & Power, 1995; Stein et al., 1999). With much focus on how supportive and pressuring parents can be, researchers face barriers when trying to capture parents' true behaviours and interactions.

Most recent research has begun to explore specific behaviours and tendencies that constitute the optimal amount of parental involvement. For example, in Strachan, Côté, and Deakin's (2009) study, it was found that the majority of child-athlete participants perceived that their parents demonstrated support. The greater amount of support received was associated with a variety of positive outcomes, such as increased enjoyment, motivation, commitment in sport. However, this can be conflicting as higher levels of support were associated with more negative outcomes, such as withdrawal and

burnout (Strachan et al., 2009). In addition, researchers have begun to use qualitative research designs to gain an understanding on the perceptions coaches, parents, and athletes have in regards to parental involvement in youth sport environments (Knight, Boden, & Holt, 2010; Knight, Neely, & Holt, 2011).

Parents' sport-related feedback. For parents, providing sport-related feedback to child-athletes can be challenging as preferences and conditions continuously change. In Holt, Tamminen, Black, Sehn, and Wall's (2008) longitudinal study, findings suggested that parent behaviours (i.e., verbal remarks, feedback) at competitions and games were influenced by their perceived knowledge and/or past experiences. Moreover, research suggests that parents' attendance at competitions and games has the potential to contribute to various positive psychosocial outcomes, including motivation and enjoyment (Keegan, Harwood, Spray, & Lavalley, 2009; Keegan, Spray, Harwood, & Lavalley, 2010). Drawing on Holt and colleagues work, Knight and colleagues (2010) found that most adolescent athletes appreciate their parents' honest non-performance related feedback. Further, it was found that child-athletes preferred to hear positive feedback immediately after their performance but constructive feedback outside the competition, in the absence of other teammates or parents. Some gender differences among parents were again noted. It was found that mothers tend to offer a great deal of positive feedback, while fathers tend to provide more constructive and critical feedback. These differences are consistent with past work (Averill & Power, 1995) suggesting that mothers see themselves as providing greater sources of support, while fathers feel as though they offer more direct support through feedback, coaching, and instruction.

Two recent qualitative studies by Knight and colleagues (2010; 2011), involving

high-performing youth Canadian tennis players, found that child-athletes prefer that their parents avoid offering technical, tactical, and performance-related feedback during and following competitive events. Findings revealed that child-athletes confuse parents' feedback with their coach's advice, often leading to an overload of conflicting information (Knight et al., 2010; Knight et al., 2011). In addition, Knight and colleagues (2010) found that young athletes were particularly attuned to their parents' non-verbal communication (e.g., disappointed body language or tone of voice), and became particularly frustrated when their parents' non-verbal communication messages were inconsistent with their verbal messages. It is evident that the way in which parents should behave at competitions can be conflicting.

Parenting style. Early research began to investigate how parenting styles may influence children's sport development and participation. In Csikszentmihalyi, Rathunde, and Whalen's (1993) seminal study, parenting style and how it influences talent development and sport participation among 58 American youth athletes from various sports, was explored. Csikszentmihalyi et al. (1993) found that four different types of home environments emerged, including: 1) integrated, consisting of a stable and supportive environment; 2) differentiated, described as environments that promote youth to take on new opportunities; 3) complex, which include both integrated and differentiated characteristics; and 4) simple, which do not include integrated or differentiated characteristics. Their findings suggested that complex families were associated with the most positive outcomes related to talent development and sport participation (Csikszentmihalyi et al., 1993).

Drawing on Csikszentmihalyi and colleagues (1993) research, Juntumaa,

Keskivaara, and Punamaki (2005) explored three parenting styles and the positive or negative outcomes that could occur among youth hockey players. The parenting styles included: authoritative, authoritarian, and permissive. Findings suggested that athletes who come from authoritative families (i.e., a balance between control and warmth) expressed more interest in their sport involvement than norm-breaking behaviours (e.g., breaking rules) (Juntumaa et al., 2005). Further, authoritarian (i.e., highly controlling and lacking warmth) and permissive (i.e., low control and high warmth) parenting styles were associated with a decrease in association with sports and an increase in norm-breaking behaviours (Juntumaa et al., 2005). In addition, gender differences among parents were found, with mothers demonstrating more authoritative parenting and fathers demonstrating a more authoritarian parenting style. From the research provided, it is clear that parenting styles have the potential to contribute to athletes' sport participation as well as their sport-related decisions and behaviors.

Parents' tangible support. Parents play a major contributing role in providing their children with the opportunity to engage in sport. Inherent within the parents' role of providing children with opportunities for sport participation and involvement, include a multitude of tangible behaviours. From enrolment to the promotion and integration of sport and physical activity into the family lifestyle, parents are integral to their children's sport development (Bloom, 1985; Côté, 1999). Furthermore, providing financial support for program fees, equipment, and personal training is just a few of the costs involved in sport (Bloom, 1985; Côté, 1999). Parents must be willing to offer transportation to and from training sessions and competitions and to volunteer their time for coaching, managing, officiating, fundraising, and/or sport administration at practices and

competitions (Davis & Meyer, 2008; Fraser-Thomas et al., 2008). Further, parents must adhere to the time commitment necessary for lessons (Côté & Fraser-Thomas, 2011), be willing to relocate the family if the right opportunity arises, and to afford them access to optimal coaching and/or training facilities (Kirk et al., 1997b; Wolfenden & Holt, 2005; Fraser-Thomas et al., 2013). These are among the many ways in which parents must offer tangible support.

Parental differences have come into existence in regards to how parents offer tangible support to their children. It has been found that mothers tend to sacrifice their career and/or social life to provide transportation and the necessary means to manage practice and competition schedules whereas the fathers' contributions have been found to primarily be financial (Kirk et al., 1997b; Wolfenden & Holt, 2005). Due to the multitude of resources required for an elite youth athlete's sport participation, researchers have suggested that tangible support tends to be a pre-requisite for parents (Kirk et al., 1997a; Wolfenden & Holt, 2005; Lauer, Gould, Roman, & Pierce, 2010).

It is evident that there is an abundance of literature focused on the influences parents have on their children's sport participation and development. However research needs to extend beyond parents and to the whole family unit, including siblings. Siblings are apart of the home environment, which has been found to have an impact on children's talent development (Bloom, 1985). Sibling influence is a contextual factor that is missing in sport literature and needs to be considered in advancing the sport experiences of young people.

Sibling Theories

Research has found that youth spend more time with their siblings and participate

in more activities with their siblings than with parents and peers outside of school (Larson & Richards, 1994; McHale & Crouter, 1996). In fact, older siblings often serve as role models and caregivers for younger sisters and brothers (Côté, 1999; McHale, & Crouter, 1996). Research and theory highlight several ways in which siblings may influence one another.

Observational learning. Social learning processes (e.g., observational learning) are commonly used to explain sibling relationship dynamics. Social learning mechanisms (e.g., observational learning) propose a basis for why siblings develop similar attributes, attitudes, and behaviours. Observational learning theory suggests that imitation among siblings is common and more likely to occur when the model possesses three characteristics including: 1) power, 2) nurturance, and 3) similarity to the observer (Mischel, 1966). Observational learning theory highlights that older siblings play a significant role on their younger siblings development suggesting that cognitive behaviours such as attitudes and beliefs are acquired through observation and imitation (Bandura, 1977). Further, it has been found that modelling and imitation processes are more evident in same-sex sibling dyads as compared to mixed-sex dyads (Whiteman, McHale, & Crouter, 2007).

It is evident that children learn social competencies in their interactions with siblings and by observing their family members' interactions. Despite the emerging literature on sibling similarities suggesting that observational learning may be important in explaining siblings' commonalities, behavioural geneticists have expressed that two siblings are often no more alike than unrelated youth (e.g., Plomin & Daniels, 1987; Rowe & Plomin, 1981). This is due to non-shared genes and differences in environment

and parenting. Although behavioural geneticists have suggested that these differences between siblings may emerge, they may also arise through sibling deidentification processes (Ansbacher & Ansbacher, 1956; Feinberg & Hetherington, 2000).

Sibling deidentification. In contrast to observational learning theory, there is evidence suggesting that siblings seek differentiation between one another, a process that has been termed sibling deidentification (Ansbacher & Ansbacher, 1956; Schachter, Shore, Feldman-Rotman, Marquis, & Campbell, 1976; Schachter, Gilutz, Shore, & Adler, 1978). Through deidentification processes, siblings engage in different activities and behaviours in order to establish their individual niche within the family. Originally advanced in the writings of Alfred Adler (Ansbacher & Ansbacher, 1956), sibling deidentification refers to the tendency for siblings to learn from the experiences of their brothers and sisters and to purposely choose different identities and develop different qualities to reduce competition and rivalry, while sharing parental love and attention (Ansbacher & Ansbacher, 1956; Schachter et al., 1976; Schachter et al., 1978).

Schachter and colleagues (1978) found that sibling deidentification leads to less direct competition and, theoretically, is most pronounced in siblings who are most objectively similar in age, birth order, or sex. Therefore, findings support the view that sibling differentiation may be a strategy for managing sibling conflict and rivalry (Feinberg, McHale, Crouter, & Cumsille, 2003). Despite the vast amount of research in the area of sibling deidentification, the “dynamic nature of differentiation processes” (Feinberg et al., 2003, p. 1263) is under investigated. Sibling deidentification theory implies that the process of differentiation occurs over time. The family as an evolving network of individuals has not been explored. Thus, instead of a snapshot of siblings

relationships at one point in time, changes in sibling relationships and how such change relates to other aspects of the family system needs further exploration (Feinberg et al., 2003).

Sibling divergence. The initiative for deidentification can relate to the theory of divergence. First proposed by Charles Darwin (1859), divergence implies that in the animal world, two species cannot coexist in the same habitat if their ecological components are identical (Darwin, 1859). During a carriage ride in the 1850's, Darwin resolved an evolutionary puzzle. He observed that in time, "species tend to evolve in multiple forms that diverge in character, a process called "adaptive radiation." One of the best-known examples is Darwin's finches' (Sulloway, 1996, p. 85). Galápagos finches occupy a range of niches (ground finches and tree finches, seed eaters, insect eaters, etc.) allowing them to coexist in greater numbers than expected (Darwin, 1859; Sulloway, 1996). Within the theory of divergence, the idea that no two species can coexist in the same habitat if their ecological components are the same relates to the principle of competitive exclusion (Darwin, 1859; Sulloway, 1996). When similar species must coexist in the same habitat, they exhibit character displacement, where differences are recognized and accentuated, reducing rivalry and competition for the same resources (Darwin, 1859; Brown & Wilson, 1956). Therefore, evolutionary diversification is necessary between species to minimize competition and to make coexistence possible (Darwin, 1859). Similar to various species, siblings compete over valued resources. In the natural world, divergence within the human family minimizes competition for resources such as parental affection and support (Graham, 2004).

Therefore, sibling competition, jealousy, and/or rivalry could be explained using

an ecological theory of the family (Klein & White, 1996; Sulloway, 1996). Sibling divergence (Darwin, 1859; Sulloway, 1996) and sibling deidentification theory (Ansbacher & Ansbacher, 1956) suggest that as children of the same family pursue different interests and activities, direct rivalry and competition will be minimized. Further, as children of the same family mature, they undergo various adaptations and diversifications in their efforts to establish their individual niche (Darwin, 1859; Sulloway, 1996; Côté, 1999). Diversification can provide siblings with three benefits including: 1) minimizing direct competition, 2) increasing parental investment, and 3) making children less dependent on their parents (Sulloway, 1996). Further, it has been reported that when one sibling excels in a particular activity and/or sport, the other sibling and/or siblings consider the probability of measuring up to their successes. When a sibling has not yet established their individual niche, they are more susceptible to negative sibling comparisons (Sulloway, 1996; Côté, 1999). Therefore, when one sibling is superior in expertise, the less experienced sibling and/or siblings may benefit from seeking out interests of their own. Sulloway (1996) stated, “having broad interests increases the likelihood of discovering personal talents that parents deem worthy of support” (p. 105). By occupying different interests, activities, and/or sports, siblings develop specialized roles based on individual factors including age, gender, interests, and skills. This allows parents to identify talents among their children and to support these abilities through instruction, resources, and encouragement. Due to the differences that exist between siblings, some parents may support one child’s interests and abilities more strongly than another (Sulloway, 2011).

An example of sibling diversification and specialization can be seen in the family

of Ralph Nader, several-time candidate for presidency in the United States. Sulloway (2011) found that “when Nader and his three older siblings were adolescents, they divided the world into four equal parts. Each sibling took one quarter of the world, and they subsequently specialized in the history, culture, and languages of his or her own particular portion of the globe” (Sulloway, 2011, p. 103). In accordance with Darwin's theory of divergence, the Nader siblings understood that specializing in different areas of study and sharing their respective resources would help eliminate sibling competition, jealousy, and/or rivalry (Sulloway, 1996; Sulloway, 2011). This example highlights the importance of choosing individual paths to help facilitate cooperation rather than competition. Although sibling divergence theory has not yet been empirically tested in the natural world, the framework could support the existing literature found in the education (Hadfield, Edwards, & Mauthner, 2006; Cornell & Grossberg, 1986) and sport (Côté, 1999; Côté & Fraser-Thomas, 2011; Davis & Meyer, 2008) domains.

Siblings and Education

As an important part of the family structure, research shows that siblings can have a potentially strong influence on their younger sibling's educational experiences. Hadfield et al. (2006) conducted a qualitative study exploring the experiences of children with their siblings, both at home and at school. Findings touched on the fact that siblings could act as a source of support in a school setting (Hadfield et al., 2006). Siblings were reported to have provided emotional support in times of need and were portrayed as protectors against bullying (Hadfield et al., 2006). Sibling relationships in school have also been discussed in terms of birth order. Birth order has been identified as a potential contributor to the power and/or status differential that exists among siblings (Azmitia &

Hesser, 1993; Davis & Meyer, 2008; Furman & Buhrmester, 1985a, 1985b; Sulloway, 1996). It is common for the oldest child to possess an authoritative type personality, enabling him and/or her to provide guidance to their younger siblings (Davis & Meyer, 2008). It is therefore common for the youngest sibling to compare him or herself to their older siblings and their accomplishments. This often leads the younger siblings to deidentify from the older siblings in search of recognition to find their individual niche (Colangelo, 1988; Sulloway, 1996).

Further, it has been found that children who are labeled as gifted in school may elicit feelings of rivalry and competition among siblings who are not perceived this way (Cornell, 1984; Pfouts, 1976; Pfouts, 1980). Cornell and Grossberg (1986) found that siblings who were not labeled as gifted or talented at school and by their parents had lower levels of self-esteem and higher levels of anxiety. Further, it has been found that parents often feel a sense of pride and closeness with their gifted child whereas parental guilt is felt among their relationship with their nongifted child (Grenier, 2014, p. 164). It has been found that a family with both a gifted and nongifted child is influential in shaping parental treatment and attitudes. This difference in treatment often times leads to sibling conflict, rivalry, and resentment as it determines how the child feels about themselves, each other, and how they will subsequently interact (Grenier, 2014).

When examining literature on deidentification processes, research suggests that the more gifted sibling seeks out instances of comparison and competition with the less gifted sibling as a way to raise self-confidence and self-esteem through positive comparison (Grenier, 2014). Therefore it is common for the sibling who feels at a disadvantage and/or outperformed is likely to initiate feelings of tension, friction, and

rivalry. This theory suggests that a more able sibling will tend to identify strongly with a less able sibling whereas the less able child is inclined instead to deidentify and express feelings of being dissimilar from the more competent sibling (Grenier, 2014). Literature pertaining to sibling experiences in education is consistent with research focusing on sibling experiences in sport.

The Sibling-Athlete Dyad

Literature focuses on both the positive and negative influences within the athlete-sibling relationship. More specifically, sibling support (i.e., emotional and instructional support) and the affective responses that can be present among siblings in sport (i.e., anger, frustration, and motivation to beat sibling in sport) have been explored.

Predominantly, research has focused on the influences parents have on their child's talent development (Bloom, 1985). However, minimal information has been provided in regards to siblings and their involvement in youth sport participation. Bloom's (1985) work was extended by Côté (1999), who found that older siblings, specifically in the specializing years (ages 13-15), may act as role models by portraying strong work ethics for youth involved in sport. Further, Côté (1999) touched on the fact that sibling cooperation could be a strong part of the athlete-sibling relationship, as opposed to competition. Drawing on Côté's (1999) study, Davis and Meyer (2008) found that sibling cooperation in terms of emotional and instructional support were main themes that arose in terms of the athlete-sibling relationship. In addition, Fraser-Thomas et al. (2008) found that siblings generally had a positive influence on sport participation and were able to provide emotional support (e.g., encouragement and motivation).

Participants of Davis and Meyer's (2008) study reported that they served as a

source of “emotional support for their respective siblings by: (a) cheering and displaying pride, (b) providing encouragement, (c) offering words of affirmation, and (d) defending the sibling in times of need” (p. 231). Furthermore, participants were currently competing against one another in their respective sports, with results showing that siblings were emotionally supportive of each other, which was not the case when the siblings competed against unrelated athletes (Davis & Meyer, 2008). The idea of sibling athletes providing each other with emotional support is consistent with Weiss’ (1974) reassurance of worth relationship function. This implies that siblings attempt to support and encourage each other by fostering confidence, a theme that was not found to occur among non-sibling competitors (Davis & Meyer, 2008). It is evident that emotional support was a prominent theme among Davis and Meyer’s (2008) sample, which adds to previous research examining familial influences in youth sport participation (Bloom, 1985; Côté, 1999), by indicating that siblings may serve as a source of emotional support to elite youth athletes.

In addition to emotional support, Davis and Meyer (2008) found that the sibling participants provided instructional support to one another by offering sport-specific advice and assisting with specific strategies and action plans. Results from the qualitative study implied that older siblings often provided their younger siblings with instructional support. These findings are consistent with Weiss’ (1974) guidance relationship function, whereby the older and/or more experienced sibling-athlete provides instruction to the younger and/or less experienced sibling-athlete. Davis and Meyer’s (2008) study implicates the presence of a power and/or status differential between siblings, whereby older siblings serve as a source of guidance and support for their younger siblings. These findings are consistent with previous non-sport research, which suggests that older

siblings generally have superior status and more power than younger siblings, whereas younger siblings show more admiration towards their older siblings (Furman & Buhrmester, 1985b).

Although there have been some positive relationships found regarding sibling influences in the elite sport context, it has been found that tensions can arise among siblings in relation to their sport participation. In fact, it has been found that youth with siblings involved in sport are more likely to participate in that same sport (Wold & Anderssen, 1992). Further, Sulloway (1996) found that the youngest sibling often compares himself/herself to the older sibling's achievements. Research has shown that the sibling who is not engaged at the elite level felt bitterness and/or jealousy due to the increased amount of time and resources spent on the athlete (Côté, 1999; Côté & Hay, 2002). This has often led to negative implications including affective responses to sibling competition in the elite sport context (i.e., pressure, frustration, motivation to beat sibling in sport) (Fraser-Thomas et al., 2008).

Research has revealed that familial competition is often accompanied by various negative feelings (e.g., anger/disappointment, annoyance, increased anxiety, frustration). Specifically, child-athletes have often reported experiencing increased levels of pressure prior to and during competition with or against their sibling (Davis & Meyer, 2008). This pressure was reported to decrease prior to and during competition with their non-sibling competitor. The increased pressure, which emanated from the desire to perform just as well or better than their sibling as well as to prove to themselves and others the extent of their skill, stemmed from both internal (e.g., self-doubt, worry) and external (e.g., family and peers) sources (Davis & Meyer, 2008). In addition, it was reported that sibling

competition at the elite level served as a motivator to beat their sibling counterpart and to perform well in the presence of their parents and friends. Motivated by social comparison to their siblings, the athlete participants “discussed that familial competition prompted an increase in workload during training (i.e., physically and mentally), an increase in effort during the actual competition, and increased use of mental preparation strategies (e.g., visualization) to help them beat their sibling” (Davis & Meyer, 2008, p. 227).

When exploring the sibling-parent-athlete relationship, parents have expressed concern for the other children in their families in terms of attention and time when dealing with an elite-level athlete (Kirk et al., 1997b). Research shows that uneven distribution of resources within a family due to sport-related issues could result in sibling jealousy, tension, and resentment (Côté, 1999; Harwood & Knight, 2009). Further, parents have articulated that treating all children equally, splitting the family to accommodate for the athlete’s needs, choosing one child over the other, and worrying about their children’s relationships with each other causes great stress amongst the family (Côté, 1999; Harwood & Knight, 2009; Fraser-Thomas et al., 2013). This stress can be accentuated when siblings feel as though their parents are favoring one child over the other. Children’s perceptions of favouritism have been shown to play an important role in sibling relations.

Social comparison theory is a conceptual framework that emphasizes “the importance of distinguishing between the extent to which siblings are treated differently and their subjective evaluation of their experiences” (Meunier, Roskam, Stievenart, Moortele, Browne, & Wade, 2012, p. 614). According to Festinger (1954), individuals develop self-appraisals based on evaluative comparisons (i.e., social comparison theory).

It is common for siblings to engage in social comparisons with one another due to their shared characteristics, interests, and environment. Moreover, Dunn and Munn (1985) found that from as young as 2, children are highly aware of, and compare, the behaviour of their parents toward them and their sibling(s).

Early research has also revealed that birth order can have an affect on sibling rivalry. Sibling rivalry can often stem from the younger sibling attempting to outperform or overtake the accomplishments of the older sibling (Romeo, 1994). These findings are consistent with research in the education domain (Pfouts, 1976; Pfouts, 1980; Cornell & Grossberg, 1986). In Davis and Meyer's (2008) study, several participants noted the pressure they experienced being the younger sibling. Based on their birth order, the younger siblings reported increased self-induced pressure to perform as well as their siblings in the presence of others (David & Meyer, 2008). Sibling competition, whether it is in education or sport, may be a consequence of the younger siblings feeling inferior to their more talented older siblings (Colangelo, 1988; David & Meyer, 2008), resulting in rivalry and/or competition for resources (e.g., attention from parents) within the family (Sulloway, 1996).

Integrating Parent and Sibling Influence into the Developmental Model of Sport Participation

As previously presented, the DMSP has become a framework for understanding children's development in sport. Over the years there have been substantial advances in our understanding of children's development; however, contextual influences need to be considered further. These contextual factors pertain to the roles of parents and siblings. However, literature relating to parent influence and involvement in sport is vast whereas

research pertaining to the athlete-sibling relationship is scarce. In Fraser-Thomas and colleagues (2013) work, the idea of integrating family influence into the DMSP was presented. Fraser-Thomas et al. (2013) emphasize practical suggestions for extending the contextual aspects of the DMSP trajectories. However, the links made between parent and sibling behaviours need to be empirically tested.

During the sampling years, it is the parents' responsibility to provide their children with opportunities to engage and enjoy sport. Parents should provide their children with various extra-curricular activities and play opportunities (i.e., playing at the park) to help them engage in both physical and psychosocial skill development. The sampling years can provide an opportunity for positive sibling influences. Older siblings can act as role models through positive participation habits and attitudes as research suggests older siblings influence their younger siblings' sport participation. As samplers move into the recreational years (trajectory 1), parents continue to have an opportunity to provide support, particularly emotional and tangible. At this stage, siblings can continue to model positive sport participation.

During the specializing years, the athlete decides to gradually decrease their involvement in extra-curricular activities and focus on one or two specific sports (trajectory 2). This stage requires the athlete's parents to provide tangible support through financial aid. It is also necessary for the parents to spend a considerable amount of time committed to the athlete's endeavors. During the specializing years, older siblings can act as role models (e.g. strong work ethic) or competitors and rivals. Through this stage and moving into the next, parents need to be mindful in terms of distribution of resources within a family as jealousy, tension, and resentment could begin to resonate among

siblings.

During the investment years, the athlete commits to accomplishing a single sport at the elite level. At this stage, parents should provide tangible and emotional support when needed. During the investment years, the child-athlete tends to receive greater attention and the distribution of resources can be skewed, leading siblings to experience feelings of jealousy and rivalry. However, research reveals that siblings should be providing encouragement as well as emotional and instructional support during this stage. When a youth athlete shows talent and potential in sports, early specialization may occur (trajectory 3). Similar to the specializing years, jealousy and rivalry among siblings may arise due to the lack of resources devoted to each child. As research suggests, it may be necessary to engage children of the same family in different sports to help them develop their own niche, ultimately decreasing the chance of jealousy and rivalry from occurring.

Rationale

Gaining insight into the influence of siblings regarding elite youth sport participation and development may greatly benefit the performance and lives of elite youth athletes. Furthermore, it might help to ensure that sport participation and development is an enriching process. Although the literature explores both parent and sibling involvement and support in youth sport participation and development, sibling influence is a neglected area of research. The purpose of this study is to gain insight into how siblings influence elite youth athletes' sport participation, how parents influence the sibling relationship and to further explore connections suggested in the Developmental Model of Sport Participation. From the research provided, it is evident that both parents and siblings influence children's talent development (Bloom, 1985; Côté, 1999).

Therefore, identifying family dynamics that extend beyond parents' involvement may be influential in understanding and improving youths' competence in sport (Côté, 1999).

Research shows that the scarcity of literature in the area of sibling influence in youth sport prompts the need to conduct research on this unique phenomenon, thereby informing the practice of sport psychology consultants (Davis & Meyer, 2008). This study will provide coaches, parents, and siblings with knowledge and techniques on how to best manage parent-athlete and sibling-athlete relations in the elite youth sport context. Therefore, this study seeks to answer the following questions: 1) How do siblings influence an elite youth athlete's sport participation? 2) How do parents influence the sibling relationship in sport?

Chapter 3: Method

To discover how siblings influence elite youth sport participation, a qualitative research approach was employed. Grounded theory was used to uncover patterns in the data, contributing to the establishment of a substantive theory. Due to the primary researchers experiences in the elite youth sport context, an insider's perspective was used as language, identity, and/or common experiences were shared with the participants. Last, a retrospective research approach was taken, which allowed for participants to reflect on and recall previous sport experiences.

Approach to Research

Grounded theory. Grounded theory is a qualitative research approach that constructs theory from data (Charmaz & Henwood, 2008). The theory takes an inductive approach, meaning it builds theory rather than tests theory (Strauss & Corbin, 1998). The use of grounded theory allows for a systematic review of all the collected data and allows the researcher to consider alternative meanings of the phenomenon (Strauss & Corbin, 1998). Grounded theory follows a systemic coding procedure including: open coding (where relevant categories are identified within the text), axial coding (a technique for conceptually mapping relationships between categories), and selective coding (which involves identifying the phenomenon of interest within the central categories recognized) (Strauss & Corbin, 1990; Braun & Clarke, 2013).

The main components of a grounded theory study include: openness, immediate analysis, coding and continuous comparison, memo writing, theoretical sampling, theoretical saturation, and the production of a substantive theory (Charmaz, 2006; Bryant & Charmaz, 2007; Engward, 2013). For this study, the primary research used openness

by being open to and sensitive to the areas of importance to the participants. Further, the researcher demonstrated reflexivity in relation to the research and how data collection, analysis, and findings may be shaped by individual experiences. This component is important in developing the credibility of the grounded theory. Immediate analysis was completed as soon as data collection began. This component is important because it informs further data collection to enable the researcher to identify similarities and differences in the data. Coding and continuous comparison took place during the data analysis stage. Coding data helps to break down data into smaller, more manageable components. The three types of coding used included: open, axial, and selective. Continuous comparison is the process of coding and analysis, which allowed the primary researcher to compare and contrast the data. Next, memo writing was conducted during the process of coding and continuous comparison, helping the researcher to identify possible patterns within the codes. Coding, comparison, and memos informed theoretical sampling for this particular study. Theoretical sampling refers to further data collection guided by findings from previous data analysis. Therefore, new data was used to confirm, add to, or challenge the patterns within the data. This helped the primary researcher to identify gaps in the data that required further investigation. Next, theoretical saturation was met once no new data was heard from participants. Lastly, the production of a substantive theory was produced from the data as a set of concepts that relate to one another in a cohesive way (Charmaz, 2006; Bryant & Charmaz, 2007; Engward, 2013).

Insider's perspective. Franz Boas and Edward Sapir, leading anthropologists, argued that the only meaningful distinctions were those made by people within a culture. This idea comes from the emic perspective, meaning insider's perspective (Patton, 2002).

From the ages of 12-17, I trained professionally at the Royal Winnipeg Ballet School. Becoming a professional ballet dancer had always been my dream. Growing up, I was very influenced by my older sister. I would not have begun dance if it were not for her. She was my role model and I constantly wanted to do what she did. When my sister turned 14, she was accepted into the National Ballet School's professional ballet program. She participated in the summer training program but her love for other dance styles brought her back to our local dance studio. Every year my sister travelled to different professional dance programs, always returning with a positive experience, new friends, and improvements in her abilities. As soon as I was old enough to attend professional dance programs, I auditioned. At the age of 12, I was accepted into full-time training program at the Royal Winnipeg Ballet School. My family allowed me to make the decision and considering my age, I had to commit if it was something I wanted to pursue in my future. This meant I had to move to Winnipeg from Ontario to a residence on my own. My sister was incredibly supportive of my decision. As I spent five years fully immersed in the professional ballet academic program, my sister continued to dance recreationally at the local dance studio where she successfully competed all across the world. Having a sister who has influenced my personal journey and spending five years training at a professional ballet school gives me an emic or insider's perspective into the setting and participants being studied.

Retrospective approach. The use of a retrospective approach allows for participants to reflect and recall on previous life events (i.e., sport experiences and sibling influence during adolescence) (Creswell, 1994). Interviews were designed to probe participants to answer questions based on past episodic experiences and how those

experiences influenced their sport participation and development (Côté, Ericsson, & Law, 2005). Retrospective studies are designed under the assumption that when participants answer interview questions based on recall of past episodic experiences, answers will be more accurate and reliable because participants are not forced to reconstruct answers to general questions (Ericsson & Simon, 1993; Law, Côté, & Ericsson, 2005).

Participants

To retrospectively explore sibling relationships in the elite youth sport context, two participant groups were interviewed. First, there was a sample of four female athletes (ages ranged from 18 to 25, $M_{age}= 21$), who were once identified as elite youth athletes between the ages of 12 to 17. For the purposes of this research, athlete participants comprised the following characteristics, which contributed to their elite status: 1) The athlete was 12-17 years of age, 2) the athlete participated in their respective sport at a minimum of 20 hours per week, 3) the athlete competed at a provincial and/or national level in their sport, and 4) the athlete trained and competed with a provincial sport club and/or organization. In addition, four of the athlete participants' siblings (ages ranged from 18 to 35, $M_{age}= 21.8$) who were of the same sex (female) and once participated in the same sport were also participants. Participants were involved in volleyball (athlete: 25 years, sibling: 24 years, age gap: 1 year), soccer (athlete 1: 20 years, sibling 1: 18 years, age gap: 2 years; athlete 2: 18, sibling 2: 25, age gap: 7 years), and ringette (athlete: 21 years, sibling: 20 years, age gap: 1 year) (M_{age} gap for all participant groups= 2.75). Athletes had 14-21 years of competitive sport experience and trained for an average of 22.6 hours per week between the ages of 12-17. Siblings trained for 10-20 hours per week.

Procedure

Ethical approval for the research was granted by the Education/Nursing Research Ethics Board (ENREB) at the University of Manitoba. Participants were recruited through two processes. A letter was sent to the University of Manitoba Bison Athletic Director seeking permission to provide information on the study to potential participants. Further, posters detailing the study were put up around the University of Manitoba to promote free, informed choice on the participant's behalf. The first 5 athletes who contacted the primary researcher were selected for participation. Once the athlete participant contacted the primary researcher for participation, an additional letter was sent to each athlete requesting that his or her sibling participate. When the sibling accepted participation, a separate email address was obtained and both participants were sent their interview guides (Appendix A and B) and an informed consent (Appendix C or D), outlining the details of the study. If the sibling did not agree to participate, both athlete and sibling were graciously thanked for their time and consideration. Data collection did not begin until both athlete and sibling responded and accepted participation.

Data Collection

Data was collected during the 2015 winter season and consisted of phone, Skype, and in person interviews. Interviews lasted between 20 and 40 minutes and were conducted by the primary researcher after both athlete and sibling-athlete participants read information on the nature of the study and completed consent forms. For those who participated through Skype or phone, consent forms were sent to the participant via email. The participants printed and signed the consent form and then scanned it back to the primary researcher before interviews took place. The semi-structured interviews

aimed to gather an understanding of participants' sport involvement and the role siblings who participate in the same sport have on each other. Separate interview guides were used for both athlete (see Appendix A) and sibling-athlete (see Appendix B) participants. Athletes were questioned in three areas: (a) athlete characteristics, (b) sport participation and sibling influence, and (c) parent influence. For example, "how does your sibling play a role in your sport participation?" and "how has your sibling(s) shaped or contributed to your sport involvement?". Similarly, siblings were questioned in three areas: (a) sibling-athlete characteristics, (b) sport participation and sibling influence, and (c) parent influence. For example, "how do you play a role in his/her sport participation?" and "how do you feel when you watch your sibling participate in your sport?". Further, questions were asked that relate to both the athlete and siblings perceptions of their parents role in the sport context. For example, the question "how have your parents contributed to your sport participation?" was asked. Main questions were open-ended, allowing athletes and siblings to use their own words to describe their sport involvement and the role of siblings on that involvement. Further, probing questions were consistently used to encourage participants to expand on their ideas and statements such as, "Can you provide an example or story on how participating in the same sport influenced your relationship with your sibling?". The interview process allowed athletes and siblings to focus on their previously identified experiences, and make meaning and provide understanding of those past experiences (Seidman, 1991; Fraser-Thomas et al., 2008).

Data Analysis

All interviews were audio recorded and transcribed verbatim by the primary researcher, resulting in 62 pages of transcripts (11-point font, single-spaced). To protect

identities, pseudonyms were assigned to each participant. Data was analyzed following previously established guidelines (Côté et al., 1993; Tesch, 1990; Engward, 2013). The trustworthiness of the data was assured through member checking. Participants were asked to review their transcripts for verification, allowing 1-week for the participants to analyze the transcripts and increase the validity of the data. After the member checking was complete, the primary researcher used a grounded theory organizational structure to identify categories, patterns, and themes within the unstructured data (Côté et al., 1993; Tesch, 1990; Engward, 2013). Through an open coding process, tags were first created representing the “codes” or “meaning units” of individual ideas characterized within the data (Côté et al., 1993; Tesch, 1990; Engward, 2013). After the data was separated into individual meaning units, the primary researcher used a second process of data analysis, axial coding, which helped to develop categories within the meaning units (Côté et al., 1993). The meaning units then went through selective coding where they were categorized based on common themes or similar meanings, helping to interpret the qualitative data collected (Côté et al., 1993; Engward, 2013). For athletes, the meaning units fell into four categories, containing 11 themes and 28 sub-themes. For siblings, the meaning units fell into three categories, containing 9 themes and 24 sub-themes. Fifteen percent of the meaning units were verified in a random sample. An independent researcher familiar with qualitative research categorized meaning units into categories, themes, and sub-themes provided, representing a high agreement with the primary researcher (18 out of 18 meaning units; 100%). This suggests that meaning units were accurately represented by categories, themes, and sub-themes (Fraser-Thomas et al., 2008).

Chapter 4: Sibling Data

Data collected through the interview process presented three distinct categories, each containing a number of themes and sub-themes. Results from the interviews are presented in Appendix E with the first column displaying the three major categories. The second column includes the themes related to the major categories, and the third column contains specific sub-themes within each theme. Pseudonyms have been used to represent sibling participants.

Positive Experiences of Participating in the Same Sport

One of the major themes of the research was the positive experience siblings had participating in the same sport. The positive experiences that were considered important by participants can be divided into three categories: growth of sibling relationship, psychological development, and winning against sibling.

Growth of sibling relationship. The participants presented six main characteristics that helped contribute to the growth of their sibling relationship including a closer relationship, travel together, relating to each other, sibling support, working together, and looking up to your sibling.

Closer relationship. Through the interviews, it was determined that most participants believed that participating in the same sport led to a closer sibling relationship. As stated by Gina, “it made us closer. We are able to talk about things to help us get better and motivate each other to be better”. Further, it was found that participating in the same sport provides siblings with the opportunity to spend more time together. Stacey noted, “playing together was nice. It made us closer because of spending lots of time together”. Most participants indicated that being involved in the same sport

helped to build memories and experiences together resulting in a growth of relationship.

Travel together. The second characteristic brought to light during the interview process was that participating in the same sport provided siblings with the opportunity to travel to practice, different games, events, and/or competitions together. Most participants found that travelling together had a very positive impact on their relationship with their sibling. Victoria stated, “we travelled together every weekend, we had the same practice schedule so we would drive to and from practice together. We were the best of friends throughout those years”. For some sports teams, travelling to different games, events, and/or competitions involves flying to various locations and residing in unfamiliar places. Rebecca noted “it was nice to travel in the plane with someone and [often times we] stayed at hotels, universities or billeted with other families so it was nice to talk to someone”. Most participants suggested that being involved in the same sport and having the opportunity and experience to travel to practice, games, events, and/or competitions together resulted in a growth of relationship.

Relating to each other. Through the interview process, all participants reflected on how participating in the same sport made it easier to relate to their sibling because they could understand each other’s experiences. Gina said, “it was nice to come home and have something in common to talk about all the time and someone to understand what you went through, training all the time”. In addition, as mentioned by Victoria, “[participating in the same sport] brought us together because we could just really relate to each other on the same level and having some of the same friends”. Being involved in the same sport often leads to practicing, training, and/or competing together whether that be on the same team or not. This can result in sharing similar friend groups, which few

participants felt enhanced their sibling relationship.

Sibling support. Another key component found in the research was the idea of sibling support. Most participants noted that they provided sibling support in the form of cheering while attending their siblings' games, events, and/or competitions. In particular, Victoria said, "for the most part I was always cheering her on like I wanted her to do well but I think we both wanted each other to succeed". Siblings involved in the same sport can understand the time commitment, hard work, and dedication it takes to participate. Therefore, it has been suggested that being involved in the same sport can lead to an increase in sibling support, resulting in a growth of relationship.

Working together. The fifth characteristic that was prominent in the research in regards to building sibling relationships through sport was the idea of working together. For a few of the participants, being involved in the same sport resulted in playing and competing on the same team, which helped to create a more positive sibling relationship. Victoria noted, "it was neat to see us working together rather than criticizing one another". Through the interviews, few participants suggested that siblings in general have the tendency to critique each other. This was emphasized because of participating in the same sport. Therefore, for these participants, being involved in the same sport helped to achieve a more positive relationship simply because they were playing on a team that required them to work together to meet success.

Looking up to your sibling. Most participants felt that because their sibling held a higher sport ranking, it gave them the opportunity and ability to look up to their sibling as a role model. Stacey said, "she was my role model. She [was] super good at directing and being the leader. I just felt like I had to work harder like she did to make it".

Further, it provided participants with motivation and the drive to push harder. Rebecca noted, “it gives you somebody to look up to and strive to be. Being younger I learned a lot from her, watching her play and seeing how hard she had to train to get where she was”. Having a sibling involved in the same sport and at the elite level was encouraging and provided them with the opportunity to learn from their siblings’ experiences.

Sibling influence on psychological development. The psychological characteristics that were deemed important by the participants can be divided into two categories: develop confidence and motivation.

Develop confidence. Through the interviews, it was determined that having a sibling involved in the same sport can help to develop confidence. Few participants suggested that watching their sibling perform helped them overcome feelings of nervousness. Stacey said “I was a shy kid so I [didn’t] have to go into a situation by myself. I could see how confident she was which helped bring me confidence”. Through the interviews, it was indicated that participating in the same sport served as a motivator to practice and perform with more confidence. This created a more positive sport experience for some participants and ultimately influenced their psychological development in sport.

Motivation. Most participants felt that having a sibling involved in the same sport and at the elite level motivated and inspired them to be a better athlete. In some cases, few participants felt as though they needed to play and/or compete to a certain standard when their sibling was watching because they did not want to feel any less of an athlete. Gina stated “it made me want to be better because I knew that she was going to watch me. It just really inspired me to push harder. I didn’t want to feel like a lesser player”. In

addition, Rebecca mentioned, “I loved it when she would watch in the stands it [made] me confident and [feel] like I was playing for somebody”. Therefore most participants indicated that being involved in the same sport and having a sibling at the elite level acted as a motivator to train, perform, and compete even harder.

Winning against sibling. Some participants expressed that winning against their sibling provided them with the power to brag and overall excitement.

Power to brag. Some participants expressed that winning against their sibling provided them with the power to brag. As stated by Rebecca, “it feels great just because you have the power to brag to them”. Further, all participants felt empowered after winning against their sibling with the higher sport ranking. Stacey said “I would probably rub it in her face a little bit. It definitely feels good”. For most participants, having the opportunity to win against their sibling made for a more positive sport experience.

Excitement. Through the interviews, most participants articulated their excitement after winning in a game and/or competition against their sibling. However, most participants chose to keep their excitement to themselves because they did not want it to negatively affect their relationship. Victoria noted, “winning was awesome. I was happy for myself but I chose not to make as much of a deal about it. I thought it would do more damage than good”. For this participant in particular, she thought it would hurt her sister’s confidence and thus preferred to celebrate her excitement on her own, which she found to have a more positive impact on their relationship.

Negative Experiences of Participating in the Same Sport

The second major theme of the research was negative experiences of participating in the same sport. The participants in the study recognized many different categories that

related to their sporting experiences that fall into two sub-themes: sibling competition and emotional responses.

Sibling competition. Being involved in the same sport can lead to sibling competition. The participants discussed three categories of sibling competition including comparison, competitive relationship, and sibling had it easier.

Comparison. Most participants felt that participating in the same sport led to frequent comparisons between siblings. Some participants felt that the comparison factor negatively impacted their sporting experiences growing up. Victoria noted,

People in general will always kind of put you against your sibling and serve you those comparisons. The constant comparison wars, you know we compared ourselves on everything. There are a lot of parallels there. I just wanted to shut it off and just be sisters.

Similarly, Rebecca stated, “everyone thinks we are the same player and it is nice to be your own person in the sport instead of always being someone’s younger sister”.

Therefore, it is evident that the comparison between siblings becomes more prominent when they share similar interests, often resulting in a more negative sport experience.

Competitive relationship. Most participants indicated that participating in the same sport made their relationship more competitive. Some participants had the opportunity to play on separate teams and to compete against each other on numerous occasions. Stacey mentioned, “we kept it competitive on the field. I don’t like to lose”. Further, because some participants were younger than their sibling during these competitions, they felt that winning was not expected of them. Gina stated, “It was super competitive. I was older, I felt like I should be winning”. In addition, the research

suggested that few participants felt that this competitive relationship expanded outside of sport. Victoria noted, “we were fiercely competitive in almost everything in life and not just [our sport]. We were both fairly critical of one another”. Participants noted that participating in the same sport resulted in a more competitive sibling relationship, which negatively influenced their sport participation.

Sibling had it easier. Through the interviews, it was determined that if the participant was older, their sibling had an easier sport experience. Gina said, “she had it easier because we were the train breakers so she knew all the contacts and everything. She had an upper hand and got all these opportunities that we weren’t able to have because we were older”. Few participants indicated that being able to provide their sibling with opportunities and experiences that were not available to them negatively influenced their sport participation.

Emotional response. The participants acknowledged two emotional responses that negatively influenced their sport participation: guilty feelings and jealousy.

Guilty feelings. Few participants indicated that participating in the same sport could result in guilty feelings. These guilty feelings would occur when the participant found success when competing and/or playing against their sibling who held a higher sport ranking. Victoria stated, “when I would see her get down on herself that was really hard for me to see; a small part of me would feel bad”. These feelings of guilt stemmed from the belief that because her sibling was elite, she should not be finding success against her. In addition, few participants suggested that they did not want to make their sibling feel and/or look bad. Stacey said, “you want to beat her but you also feel bad because she’s your sister and you don’t want to make her look bad”. From the results

shown, the participants experienced feelings of guilt when they found success in their sport when competing and/or playing against their sibling.

Jealousy. The second category that was manifested from the data was jealousy. Some participants had the opportunity to play on the same team as their sibling. Further, some participants even played the same position on the same team as their sibling. Thus, when it came to an event and/or competition, the sibling pairs would be competing against each other to gain playing time. Victoria stated, “we both played the same position one year and [my sister] always started and I started to feel jealous and just kind of beat myself up. In some ways I kind of just gave up”. Being involved in the same sport and participating on the same team led few participants to lose motivation, which negatively impacted their sport participation.

Losing against sibling. All participants noted that losing against their sibling negatively influenced their sport experience. These experiences can be divided into three categories: dislikes losing, expected to win, and loss of confidence.

Dislikes losing. Some participants revealed that losing against their sibling was quite difficult and that it negatively affected their sport participation. Victoria stated,

I was competitive too so I was pissed when we lost like I hated that. She would kind of like look through the net or at me like she thought this is the way it should be. You know like the world had just kind of regulated itself. It really bothered me because I didn't think that I was worse than her you know maybe I was in denial.

Through the interviews, some participants voiced that they were able to just brush the loss off and move forward whereas some participants disliked losing so much that it came

as a major defeat to them.

Expected to win. Since some participants were older than their siblings, they felt as though they should hold the higher sport ranking rather than their younger sibling. The research showed that few participants felt as though they should be winning when playing and/or completing against their younger sibling. Gina noted, “it just felt like because I am older, I should be winning”. The expectation to win resulted in a more negative sport outcome, which ultimately impacted their sport performance.

Loss of confidence. The last category that resonated from the research was loss of confidence. Some participants felt as though losing against their sibling decreased their confidence. Rebecca said, “it kind of brings you down a bit knowing that they are doing better than you. When I lost it was kind of a slap in the face”. Through the research, it was apparent that losing against their sibling was viewed as a setback and therefore negatively impacted some participants’ sport participation.

Sibling Perspective of Parental Role

All participants made reference to the varied ways in which parents influence their sport experiences as well as how parents contribute to their opportunities and development in sport. Specifically, participants recognized many different categories that related to their perspective of the parental role that fall into three sub-themes: parental support, influence on skill development, and negative influence of parent.

Parental support. Parents provide support to their children in various ways. The participants discussed three ways in which their parents provided support including tangible support, understand experiences, and mental support.

Tangible support. All participants deemed tangible support as the most important

form of support. All participants realized that sport would not have been possible if it were not for their parents. Most participants reflected on the fact that their parents drove them to every game, event, and/or competition, bought them the required equipment necessary, and helped to facilitate fundraisers. Further, most participants believed that participating in the same sport as their sibling was more convenient for their parents as they had the same schedules and thus had the ability to carpool. Gina stated, “[my parents] were very supporting of everything we did. They would always let us go to camps and buy us the best equipment. I thought it was a good thing for all of us to experience together. It was easier for my parents ‘cause we could carpool”. In addition, few participants expressed that it took some time to realize how much their parents did for them. Victoria said,

My parents were very supportive. I am so grateful for it now. There was definitely a time where I was kind of angry with them because they weren’t like all the other parents. A lot of the other parents were very invested in their kid’s future you know and filming every single game and wanting to get them to the next level and my parents were not like that. There were 5 of us and my dad worked 6 days a week. But they made lots happen for us that I am so grateful for.

Through the interviews, the participants realized how much tangible support their parents offered and how their sporting experiences, opportunities, and development would not have occurred if it was not for their parents’ support.

Understand experiences. Some participants felt that because their parents had participated in high-level sport, they could understand and relate to their experiences

more. Stacey stated “both [of my parents] played high level sport so they understand how we are feeling”. In fact some of the participants’ parents played the same sport as their children and were able to understand the demands and relate to their experiences, thoughts, emotions, and aspirations more.

Mental support. Through the interviews it was prevalent that some participants felt as though their mother provided more mental support than their father. Victoria said, “mom would just be cheering for everyone. You know it was good though because mom never would get upset over a loss and she would just say ‘this is a part of the game and a part of learning’”. Similarly, Stacey noted “mom doesn’t really understand all the training stuff but when it comes to cheering she was always in the stands”. Parental support in the form of mental support was viewed quite positively by most participants and helped create a more positive sport experience for them.

Influence on skill development. One main category was acknowledged by all of the participants to assist in influencing skill development, sport-related feedback.

Sport-related feedback. Through the interviews, it was determined that sport-related feedback was a significant characteristic that contributed to the siblings’ perspective of the parental role. Most participants felt as though their father provided more sport-related feedback than their mother. As stated by Rebecca,

Dad [provided feedback] all the time with his coaching and sport background.

My dad was the cameraman so he came to all the games and passed on all the stuff to coaches. When we lose I really don’t want to talk to my dad but sometimes he brings up good points and things I should do differently.

It was prominent that because some parents had been involved in sport, they felt

knowledgeable and informed enough to provide sport-related feedback. Similarly, Victoria said, “my dad was always involved in sport so when he saw something he would certainly chime in and be like ‘did you notice you are doing this with your block or you’re not moving your feet enough on defense’”. Most participants noted that the sport-related feedback that was provided by their parents was valuable and useful. As stated by Stacey, “[my mom] helped to coach sometimes, which [was] super useful. She can relate to being in the same position and even my dad because he was so high-level hockey he always helped with how we should act and deal with situations”. For this particular participant, her mother had a bigger influence on her skill development than her father, unlike most participants. Therefore, through the interviews, all participants specified that they received sport-related feedback from their parents in some way.

Negative influence of parent. Few participants recognized the negative ways in which their parents influenced their sport participation. The main category that was determined from the interviews was the idea of the participant having to prove oneself.

Prove self. Few participants indicated that they needed to prove themselves to their parents in order to receive the same support as their sibling. As stated by Victoria, “my mom would have been happy if I just stuck to my studies over [my sport]. She definitely saw more potential in Vanessa. I wanted to prove myself and I wanted them to be super gung-ho and supportive of it”. This participant in particular noted that because her sister held a higher sport ranking, she felt her parents never gave her the same amount of credit and support as her sister. Consequently, few participants found that some of their parents’ behaviours negatively influenced their sport participation.

The three categories that emerged from the data, including positive experiences

participating in the same sport, negative experiences participating in the same sport, and sibling perspective of the parental role showcase the complexity of the sibling-athlete relationship. The current sibling findings facilitate an understanding of the perceptions and experiences of siblings who participate in the same sport.

Chapter 5: Athlete Data

Data collected through the interview process presented four distinct categories, each containing a number of themes and sub-themes. Results from the interviews are presented in Appendix F with the first column displaying the three major categories. The second column includes the themes related to the major categories, and the third column contains specific sub-themes within each theme. Pseudonyms have been used to represent athlete participants.

Characteristics that Lead to Elite Status

One of the major categories uncovered in the data was the characteristics that lead to elite status in youth sport. The participants in the study noted two different types of characteristics: physical and psychological development.

Physical development. The physical characteristics that were deemed important by the participants can be divided into three sub-themes: selection process, time commitment, and physical skills.

Selection process. Through the interview process, some participants identified the importance of a selection process when discussing the characteristics that lead to elite status in sport. Vanessa stated, “you have to try out for these teams and you were personally identified and selected to be on that team. Not everyone could make those teams”. Similarly, Grace stated, “only a small number of the best athletes are there”. Some participants expressed that being selected for specific elite sports teams depended on their physical skills and development. Therefore, these specific attributes determined which team participants would be selected to be a member of.

Time commitment. Most participants described the importance of time

commitment when discussing their physical development in sport. Vanessa noted, “the time commitment you know the number of hours that I put in to it”. All of the participants spent a total of 20 or more hours per week training and participating in games, events, and/or competitions during the ages of 12 to 17. The time commitment necessary to participate at the elite level heavily influenced few participants’ physical development and sport participation.

Physical skills. All participants identified physical skills as being one of the most important characteristics that led them to elite status in sport. An elite athlete must constantly focus on training and improving their physical skills. As noted by Vanessa,

In terms of physical characteristics it comes to the amount of time spent training too. I think I started training physically like doing weights and stuff like that probably at the age of 14 or 15. I started going to the gym and trying to get stronger. So that for sure is part of being an elite athlete too.

In addition, few participants identified that it was their raw physical skills that contributed to their elite status. Rachel said “I am pretty small so that went against me but I think I made up for it in my raw skills so passing, shooting and my skating. I [was a] very strong skater”. Developing good physical skills was seen as an extremely important characteristic to all participants and integral to being an elite youth athlete.

Psychological development. The participants recognized four main characteristics that contributed to their psychological development in sport including mental toughness, confidence, leadership, and responsibility.

Mental toughness. Mental toughness was identified by some participants as being a major contributor to psychological development and a characteristic that led them to the

elite level in sport. As mentioned by Rachel, “mental toughness so not letting certain things get to you like outside situations or learning to adapt to refs’ calls that could determine a game or parental influences that were in the stands; just being able to maintain focus throughout the game”. It was noted that recovering from mistakes, dealing with distractions, and having the ability to refocus were characteristics that helped most athlete participants achieve their full potential.

Confidence. Through the interviews, few participants indicated that confidence was a psychological characteristic that was required to achieve and maintain elite status in sport. Confidence was expressed in terms of belief in ability and pushing oneself to perform and reach full potential. As stated by Grace, “confidence [was important] like knowing I was at that level and conducting myself in that way and being stronger”. Few athletes suggested that being an elite youth athlete required an immense amount of psychological development through various means.

Leadership. Another key component of psychological development identified was leadership. Some participants noted that developing leadership skills contributed to their success in sport. Rachel stated, “[it is important to have] high leadership skills; you know, all of those life skills that go along with it and not just the logistics of the game. I was always captain”. Leadership skills are important for both individual and team sports but being on a team requires unity, teamwork, the ability to overcome obstacles, and perseverance. Having strong leadership skills can help contribute to psychological development.

Responsibility. The last component that was recognized as a contributing factor to psychological development was responsibility. Being an elite youth athlete takes an

immense amount of responsibility due to the time commitment involved as well as the level of dedication, motivation, and accountability required. As mentioned by Rachel, “[sport] made us accountable so getting our training hours in”. Further, being involved in elite sport requires an athlete to set boundaries and become aware of the things they can and cannot do. Shelley mentioned, “responsibility was a big thing; just knowing the times that I could go out [with friends] and couldn’t”. Therefore, having responsibility as an athlete was viewed as being an important characteristic that helped shape the participants’ psychological development.

Positive Experiences of Participating in the Same Sport

The second major category that developed from the data was the positive experience siblings had participating in the same sport. The participants in the study recognized five major themes: development of understanding, motivation, opportunities to learn, building experiences together, and separate experiences.

Development of understanding between siblings. All participants noted that participating in the same sport led to a better understanding of experiences and helped to develop a peer understanding between siblings.

Understand experiences. All participants agreed that participating in the same sport created a common ground for siblings. Participants felt it was easier to communicate and relate to their sibling but also to understand what they were going through. Grace said, “she understood what I was going through and if I was having difficulties with a coach or a teammate or just the training schedule”. Further, some participants reflected on how they were able to communicate with their sibling on a much deeper level because of sharing similar experiences. Rachel stated, “we were able to talk

about a lot more things and communicate on a much deeper level”. In addition, most participants found that participating in the same sport contributed to an increased bond. Vanessa said, “the best part was the camaraderie. It bonds you in a totally different way. So knowing that somebody else could really understand what I was going through”.

Peer understanding. Few participants suggested that participating in the same sport provided them with a peer understanding and relationship with their sibling. Grace said, “as I started to become older it was more like we were peers and that discussion became more equal”. For Grace, once she reached sport at the elite level she felt that her relationship with her sibling became more equal because her sister was seven years older and had experienced much more in their sport. In addition, Shelley mentioned “sometimes I [didn’t] think of it as a sibling. I [thought] of her as a teammate. It made us closer and it [was] nice”. Few participants noted that viewing your sibling as a teammate or a peer provided them with a more positive sport experience.

Motivation. The participants identified two main characteristics that assisted with motivation in sport: motivation to be better and motivated sibling to be better.

Motivation to be better. Being involved in the same sport can motivate an athlete to be better. Some participants expressed the need to push themselves harder in order to maintain a superior role over their sibling. As mentioned by Shelley, “Stacey pushed me to be the best I can be too because she was the younger one and you kind of get the feeling of ‘oh I don’t want her to take my spot’”. In addition, few participants felt motivation to perform better in times when their sibling was watching. Vanessa noted, “I wanted to be better because she [was] watching. I wanted to give her something to aspire to”. Some participants agreed that being the older, more accomplished sibling motivated

them to be better in hopes that their younger, less accomplished sibling would look up to them in sport.

Motivated sibling to be better. Few participants felt that their positive sport experiences motivated their sibling to be better. Vanessa stated, “[my skills and success] probably made her work harder and pushed her to be better”. Some participants agreed that participating in the same sport and being at the elite level was an integral part of their sibling’s motivation to succeed in sport.

Opportunities to learn. Most participants agreed that participating in the same sport and at the elite level provided their sibling with an opportunity to learn. Most participants felt as though they acted as a role model for their sibling in sport.

Role model for sibling. Most participants believed that they were a role model for their sibling and provided them with someone to look up to, aspire to be like, and from whom they can seek valuable advice. Rachel said, “I really felt like I was a role model for her because she would always ask me about things”. Through the interviews, some participants noted that they felt it was their obligation and responsibility to be a role model for their sibling based on their individual success in sport. Vanessa stated,

They look up to you 100%. I always wanted to be a good role model. I always felt like I needed to perform well and do a good job because I wanted to make my little sister proud. I was just encouraged to see that she had followed in my footsteps.

All of the participants who were older than their sibling suggested that being at the elite level not only provided their sibling with someone to look up to but it provided them with the opportunity to learn from their experiences.

Building experiences together. Two main characteristics were acknowledged by the participants to assist with building experiences together including travel together and building memories.

Travel together. Travelling to different games, events, and/or competitions was prominent among few participants and their siblings. It was suggested that having a familiar person to travel with made the experiences more enjoyable and comfortable. Some participants expressed that participating in the same sport helped their family spend more time together. Shelley noted, “we traveled a lot so it is nice to have someone from home with you to have that comfort. As a family we got to spend more time together”. Few participants reflected on how they would travel to different games, events, and/or competitions where distant family members lived. Shelley mentioned how “they came out and watched” she and her sister compete. This provided them with the opportunity to spend more time with family members that they did not get to see as often.

Building memories. Through the interviews, it was determined that participating in the same sport helped to build more memories together. From travelling together to winning various games, events, and/or competitions, some participants expressed that sharing the same sport experiences positively impacted their relationship in sport. Vanessa mentioned, “we won a national gold medal and she was a part of that and we get to have that and we get to share that and that is really cool and something that is super special and wonderful and something we will always cherish”. Few participants suggested that building these types of memories and experiences is not always possible for siblings and that they are, as stated by Vanessa, “thankful for it”.

Separate experiences. Some participants noted that sharing separate sport

experiences helped to create a more positive relationship with their sibling. There was one commonality throughout, playing separately.

Playing separately. Few participants reflected on how their relationship with their sibling was enhanced once direct competition was eliminated. Vanessa stated, “she went to Brandon and I stayed in Winnipeg [to play] and our relationship got better”. Sharing separate sporting opportunities and experiences was suggested to have contributed to a more positive sibling relationship and more enjoyable sport participation.

Negative Experience of Participating in the Same Sport

The third major category that developed from the data was the negative experience siblings had participating in the same sport. The participants in the study recognized two major themes: sibling competition and emotional response.

Sibling competition. All participants agreed that participating in the same sport led to sibling competition, which contributed to a more negative sport experience. The participants discussed four categories of sibling competition: pressure to perform, fighting for the same sport, always together, and comparison.

Pressure to perform. Some participants reflected on how having a sibling involved in the same sport put more pressure on them to perform to a certain standard. In some cases, participants played the same position as their sibling. As noted by Grace, “I got nervous because I knew she was watching my every move and she played the same position so she would know if I did something wrong”. In addition, some participants felt that because their sibling viewed them as a role model, they had to live up to those expectations. Rachel said, “there was a lot more pressure because you have to show them that this is why they ask me questions on how to do things”. From some of the

participants' experiences, being the elite athlete in the family placed more pressure, expectations, and stress on their performance.

Fighting for the same spot. For some participants, being involved in the same sport resulted in playing and competing on the same team, which resulted in a more negative sport experience as they found themselves fighting for the same spot. Shelley mentioned, "we were kind of fighting for the same spot and that was kind of hard because obviously we both wanted to play. The [most negative thing for me was] pushing myself to play over her". Further, some participants found it hard when their sibling would be chosen to play while on the same team. Rachel noted,

We competed at [a major competition] together, which was probably the hardest for me. We were both alternates on the same team and there was an opening for her position when a girl got injured so naturally she got the go ahead. It was hard because of my competitive mentality as we are usually equal. Not having that experience [and watching her have it] was probably the hardest part.

Through the interviews, it was apparent that some participants found it challenging when their sibling would be presented with an opportunity to play over them because of holding a higher sport ranking.

Always together. Through the interviews, it was noted by some participants that participating in the same sport, specifically on the same team, resulted in always being together. Some participants found that sharing experiences could have a positive impact on their relationship whereas a few other participants had a somewhat different opinion. Vanessa said, "I think the problem for me was that our friend groups were the same and that we were always going to be together". Always being together and sharing the same

friend groups caused for more tension and jealousy, which resulted in a more negative sport experience for a few of the participants.

Comparison. Few participants felt that participating in the same sport led to frequent comparisons between them and their sibling. Vanessa said,

I remember having my reservations about it simply because it was another area where my sibling and I would be compared. Having been already such similar people in appearance and even our personality it was like, oh here is another thing. I kind of wanted maybe my own area but at the same time you don't outwardly say that because you want your sibling to feel supported.

Participating in the same sport created a comparison factor between a few of the sibling participants. It was suggested that all siblings tend to be compared but when interests and activities are also the same, it creates for a constant comparison which, negatively influenced the participants' sport participation.

Emotional response. Participating in the same sport was believed to have created various emotional responses. The responses that were most prevalent to the participants can be divided into five categories: tension, annoyance, feelings of guilt, expected to win, and want the credit.

Tension. Few participants noted that participating in the same sport generated tension between them and their sibling. From fighting for the same spot to always being together, this type of emotional response was common in few sibling participants.

Vanessa said, "when I was younger, I felt more of that tension with Victoria in sport".

Participating in the same sport and often times playing and/or competing with or against a sibling can create a tense relationship, resulting in a more negative sport experience.

Annoyance. Some participants found it frustrating when their sibling would critique their performance. Few participants expressed how maddening it was when their sibling did not agree with their plays and/or calls in sport. Grace stated, “when Gina would tell me [what I did wrong] I would get so angry. After games I like to vent and sometimes she would disagree [with what I was saying or doing] so that was super annoying”. Having a sibling involved in the same sport can entitle them to share their opinion, which resulted in some irritation for a few of the participants.

Feelings of guilt. Some participants indicated that participating in the same sport resulted in a guilty emotional response. These guilty feelings would occur when the participant found success when competing and/or playing against their sibling who held a lower sport ranking. Some participants expressed their want to prove their skill and showcase their abilities over their sibling but in the end this resulted in guilt. Vanessa stated, “I just wanted to show her up but at the same time I felt bad because she was my sibling”. Some participants did not want to make their sibling feel and/or look bad, especially if they were younger. Grace said, “I didn’t want to rub it in to make her feel bad and being the younger sister you aren’t really in a place to rub it in her face but deep down it was good”. Through the interview process, the participants tended to experience feelings of guilt when they found success in their sport and/or against their sibling.

Expected to win. For some participants, they always expected to win against their sibling as they held the higher sport ranking. It was noted that because some of the siblings are older, have trained harder, and have put in more time, that winning was a given. Vanessa mentioned,

[Winning against my sister was the] best, but in my mind it was always a given.

To be honest I was not threatened at all in terms of the sport piece. I was like ‘great come on in but don’t ever think you are going to be better than me’. It was a reconfirmation that I was better and that the one year difference of experience and hard work did make a difference.

For this participant in particular, she believed that because she was older, had a higher sport ranking, and more experience in sport that she deserved to win and play over her sister. Vanessa also noted, “there [was] no way [she] was going to take my position or start over me”. Most participants expressed that if their sibling beat them in a game, event, and/or competition, whether it was at the local park or not, they would be infuriated and would not be able to let it go.

Want the credit. Few participants felt that because they held the higher sport ranking that not only should they be winning against their sibling but that they should also be receiving the credit. When the participants were asked about their experiences losing against their sibling, most expressed that it was irritating because they deserved the credit for their hard work and skill development. Grace said, “I was furious [if I lost to her] especially if she was getting a lot of credit from my coaches or her coaches. I would get really angry because you know I was the one who wanted the credit [for my hard work]”. Having these types of beliefs and perceptions contributed to a more negative sport experience.

Athlete Perspective of Parental Role

All participants made reference to the varied ways in which parents influence their sport experiences as well as how parents contribute to their opportunities and development in sport. Specifically, participants recognized many different categories that

related to their perspective of the parental role, which can fall into two themes: parental support and influence on skill development.

Parental support. Parents provide support to their children in various ways. The participants discussed three ways in which their parents provided them with support including tangible support, mental support, and instilling responsibility.

Tangible support. All participants reported tangible support as the most important form of support. Most participants reflected on the fact that their parents committed many hours to their sport involvement, drove them to and attended every game, event, and/or competition, and underwent financial sacrifice to provide the best experience for them. As mentioned by Grace, “[my parents] were really supportive. They were able to drive me around everywhere. They were there at pretty much every game too”. Adding to that, Shelley said, “they would always make sure we were at our practices and get to our games. They definitely gave up a lot of their time especially when we would go on trips. They made it their priority as well”. Each set of parents had to make their child’s sport involvement and participation a priority due to the time commitment required. Not all participants experienced support in terms of being at every game, event, and/or competition. Vanessa noted,

[My parents] did the absolute best they could in terms of support. They were never those parents in the stands video taping or talking to coaches. They would just drop us off at tournaments on weekends and go do what they needed to do.

They would have team dinners and that was their way of showing support.

Therefore, all participants recognized that without their parents’ tangible support, sport at the elite level would not have been possible.

Mental support. Through the interviews, it was prevalent that some participants felt as though their mother provided more mental support than their father. Grace said, “dad was always the person on the sidelines with the camera filming every day so he would be taking pictures or videotaping and we would go through it together. My mom was always the mental support. She would be cheering us on no matter what”. Similarly, Vanessa noted, “my mom was always the mental support. She would be cheering us on no matter what but [dad] would chirp in comments”. Few participants indicated that their mother tended to focus more on the process by providing support and motivation whereas their father focused more on the outcome and what can be improved on to win. Parental support in the form of mental support was viewed quite positively by some participants and helped to create a more positive sport experience.

Instilling responsibility. Responsibility plays a major role on sport participation especially at the elite level. Few participants noted that their parents helped to instill responsibility in them. As noted by Shelly, “[my parents] would say you can’t be on a team if you are not going to give it 100%. So they definitely kept us in check and made sure we were like committing ourselves to the sport if that is what we wanted to do”. Since a few of the participants’ parents were involved in sport themselves, they were able to understand the demands and what it took to be an elite athlete.

Influence on skill development. One main category was recognized by all of the participants to assist in influencing skill development, sport-related feedback.

Sport-related feedback. Through the interviews, it was determined that sport-related feedback was a significant characteristic that contributed to the participants’ perspective of the parental role. Most participants felt as though their father provided

them with more sport-related feedback than their mother. As mentioned by Rachel, “[my] dad was involved directly with skill development. I accredit him a lot to getting me to the level [I am at]. He was a coach consistently throughout my [sport] career. He was involved directly with skill development but my mom was more behind the team you know, making snacks”. In addition, Grace said “dad was always the person on the sidelines with the camera filming every day so he would be taking pictures or videotaping and we would go through it together so he could help me with that and from that perspective”. The feedback that some participants’ parents provided them with was viewed as valuable and useful and as an important contributor to their parents’ role in sport.

The four categories that emerged from the data, including characteristics that lead to elite status, positive experiences participating in the same sport, negative experiences participating in the same sport, and athlete perspective of the parental role showcase the complexity of the sibling-athlete relationship. The current athlete findings facilitate an understanding of the perceptions elite youth athletes have in regards to having a sibling involved in the same sport. It is evident that athlete participants felt as though their experiences, elite sport status, and physical and psychological development contributed to their success as an athlete and contributed to the differences between sibling counterparts.

Chapter 6: Discussion and Conclusion

The purpose of this study was to retrospectively explore sibling relationships in elite youth sport, answering the following questions 1) how do siblings influence an elite youth athlete's sport participation? and 2) how do parents influence the sibling relationship in sport? Taking a retrospective approach allowed for participants to reflect and recall on previous life events (i.e., sport experiences and sibling influence during adolescence) (Creswell, 1994). Participants shared their perspective through mature reflection, allowing for more accurate and reliable answers (Ericsson & Simon, 1993; Law et al., 2005). This study gives insight into the characteristics that lead to elite status in youth sport, the positive and negative experiences associated with siblings participating in the same sport, and athlete and siblings' perspective of the parental role. The discussion of these findings represent the "integration and comparison of the inductively derived findings with previous research and theory" (Holt & Dunn, 2004, p. 213). In the following discussion, the results related to each research question, the strengths and limitations of the study, and suggestions for future directions will be conferred.

Interestingly, both athlete and sibling participants described the presence of both positive and negative experiences within their sibling athlete relationship. Participants recounted the existence of both closeness (e.g., closer relationship, understand experiences) and tension (e.g., fighting for the same spot, expectations to beat sibling), and reported displaying both positive regard (e.g., sibling support) and disregard (e.g., annoyance, gloating) towards their sibling athlete counterpart. The coexistence of both positive and negative characteristics is consistent with Furman and Buhrmester's (1985b) suggestions and Davis and Meyer's (2008) findings that sibling relationships are

paradoxical in nature. Children have found siblings to be an important source of closeness but also sources of conflict and rivalry (Furman & Buhrmester, 1985b; Davis & Meyer, 2008). Therefore, siblings can rely on each other for social and emotional support, but it is likely that conflicts of interest will occur. The paradoxical nature of sibling characteristics can reflect the “ambivalence inherent in sibling relationships” (Furman & Buhrmester, 1985b, p. 1022; Davis & Meyer, 2008).

Previous investigations in regards to sibling influence in sport have focused primarily on the emotional and instructional support siblings can offer (Bloom, 1985; Côté, 1999; Davis & Meyer, 2008). Exploring the relationships that were built among participants, it was evident that participating in the same sport led to a much deeper understanding of each other and the experiences endured. Having sport in common helped siblings to relate more to one another. It helped to develop stronger communication and created the opportunity for siblings to build experiences together. Results of the current study and consistent with Davis and Meyer’s (2008) findings in regards to siblings competing in the same sport, engaging in competitive sports against one another may facilitate a closer sibling bond. Further, sibling bonds were built on training, playing, and/or competing together as well as sharing lifetime memories (i.e., winning a national competition on the same sports team). Therefore, close sibling bonds were constructed and maintained despite sibling competition. Consistent with previous literature exploring siblings in sport and daily life (Festinger, Schachter, & Back, 1962; Carron & Hausenblas, 1998), the results of the current study suggest that close physical proximity (e.g., sharing friends and/or teammates, sharing similar experiences, training together) helps to facilitate a closer social bond.

Having a sibling involved in sport at the elite level served as a motivator for the less experienced sibling. It provided them with someone to look up to and aspire to be. The data presented is consistent with Weiss' (1974) guidance relationship function, whereby the older and/or more experienced athlete provides support and instruction to the younger and/or less experienced sibling. In the current study, most of the athlete participants were older than their siblings. Consistent with previous research, older siblings often serve as role models for their younger brothers or sisters (McHale, & Crouter, 1996; Côté, 1999). In fact, it has been found that youth with siblings involved in sport are more likely to participate in that same sport (Wold & Anderssen, 1992). Wold and Anderssen's (1992) findings relate to the current study, as it was believed that younger and/or less experienced siblings followed in their older and/or more experienced sibling's footsteps. The younger and/or less experienced sibling viewed the older and/or more experienced athlete as a role model, which provided them with the opportunity to learn. Thus, athlete participants experienced relationship plurality (Weiss, 1968) by fulfilling not only competitor and teammate roles, but by occupying a teaching role as well (Davis & Meyer, 2008). Consistent with Côté's (1999) work, older siblings acted as role models through positive sport participation habits.

The positive regard for sibling feelings was described by both sets of participants in the form of wanting what was best for each other and experiencing feelings of guilt in regards to personal achievements. This positive regard for sibling feelings demonstrates Weiss' (1968) idea of relationship plurality by indicating the distinction between sibling and competitor roles. Therefore, sustaining a sibling relationship characterized by warmth and closeness (i.e., working together, understanding each other) was more important to

the participants than the negative implications that could evolve (Furman & Buhrmester, 1985b). Further, results from the current study showcased how sibling competitors can be valuable sources of emotional support. Participants served as a source of emotional support for their respective sibling by cheering for them, providing encouragement, defending the sibling in times of need, and offering sport specific advice and instruction. The idea of sibling athletes providing each other with emotional support is consistent with Weiss' (1974) reassurance of worth relationship function. This implies that siblings attempt to support and encourage each other by fostering confidence.

Although there have been some positive relationships found regarding sibling influences in sport, it has been found that tensions can arise among siblings in relation to their sport participation. The current findings may also highlight the existence of a power and/or status differential that exists between siblings. Most athlete participants were older than their sibling counterpart, which contributed to a negative experience for sibling participants. It is common for the oldest child to possess an authoritative type personality, enabling him and/or her to provide guidance to their younger siblings (Furman & Buhrmester, 1985a, 1985b; Azmitia & Hesser, 1993; Davis & Meyer, 2008). This power and/or status differential was evident among siblings and led to various negative implications. The younger and less experienced siblings discussed how jealousy in regards to their more experienced sibling's achievements affected their sport participation. It contributed to a loss of confidence and created a more competitive sibling relationship. In addition, athlete participants agreed that it was only natural for their younger and/or less experienced sibling to lose in games, events, and/or competitions against them.

Specifically, athletes expressed that being an elite level athlete and engaging in competitions against their sibling served as a motivator to beat them. Athletes felt that because of their elite status, their enhanced physical and psychological characteristics, and their need and/or want “show up” their sibling, encouraged them to outperform their less experienced sibling. Similarly, sibling participants also expressed how participating in the same sport and competing against or with their more experienced sibling provided them with the motivation to also beat their sibling counterpart. Consistent with Davis and Meyer’s (2008) study, familial competition can prompt an increase in effort to outperform and beat their sibling. However, both athlete and sibling participant groups experienced increased levels of pressure during games, events, and/or competitions with or against their sibling. This pressure was reported to decrease during games, events, and/or competitions with a non-sibling competitor. For athletes, the increased pressure emanated from the wish to perform better than their sibling. For sibling participants, the added pressure derived from the desire to prove to themselves and to others the extent of their abilities and skills. Results of the current study and similar to Davis and Meyer’s (2008) study, show that sibling competition may be beneficial to the performance of some athletes due to increased motivation to be more physically and psychologically prepared for competition with or against their sibling.

Most athlete and sibling participants discussed how the constant comparison between siblings contributed to a more negative sport experience. Siblings tend to be compared across various domains and participating in the same sport can increase sibling comparisons. Further, it was common for the younger and/or less experienced sibling to compare their skills and achievements with the older and/or more experienced athlete.

Consistent with Sulloway's (1996) research, the younger and/or less experienced sibling often compares himself/herself to their older sibling's achievements. Research has shown that the sibling who is not engaged at the elite level can experience tension and/or jealousy (Côté, 1999; Côté & Hay, 2002). Both participant groups expressed their desire to share separate experiences and to have their own individual niche. These experiences contributed to negative implications including the following emotional responses: annoyance, tension, frustration, and expectations to win.

Given the close age spacing of most athlete and sibling participants (i.e., 3 years or less), results of the current study relate to previous investigations examining sibling relationships in daily life. It has been indicated that siblings closer in age experience more rivalry than wider spaced siblings (Furman & Buhrmester, 1985a, 1985b). Further, previous research suggests that sibling rivalry and conflict decreases in late adolescence (Buhrmester & Furman, 1990; Furman & Buhrmester 1992). Results confirmed that although all participants experienced a competitive relationship in sport, tension, annoyance and overall conflict faded as participants matured and found their own path.

Sibling Theories

The sibling theories used to guide this study included: observational learning theory (Mischel, 1966), deidentification theory (Ansbacher & Ansbacher, 1956) and sibling divergence (Darwin, 1859; Sulloway, 1996). The participants' description of their sporting experiences coincides with observational learning theory, which suggests that imitation among siblings is common and more likely to occur when the model possesses three characteristics including: 1) power, 2) nurturance, and 3) similarity to the observer (Mischel, 1966). It was evident that the older and/or more experienced athlete held a

position of power due to maturity, their elite status, and enhanced physical and psychological characteristics. Similar to the research explored on observational learning theory, the athlete participants who were older and/or more experienced than their siblings played a significant role on their younger and/or less experienced sibling's development suggesting that physical and cognitive behaviours such as opportunities, attitudes, and beliefs were acquired through observation and imitation (Bandura, 1977). Further, the younger and/or less experienced sibling looked up to their older and/or more experienced sibling as a role model. Being involved in the same sport and viewing their older and/or more experienced sibling's achievements provided them with the hope that they will be just as accomplished at that age.

Sibling deidentification theory suggests that siblings seek differentiation between one another by engaging in different activities and behaviours in order to establish their individual niche (Ansbacher & Ansbacher, 1956). Consistent with Schachter and colleagues' (1978) findings, participants believed that sibling deidentification could have led to less direct competition and comparisons. In fact, most sibling participants reflected on their desire to engage in different sports and activities from their sibling during adolescence. However, all sibling participants continued to participate in the same sport due to their love of the game. Further, sibling deidentification theory implies that the process of differentiation occurs over time. Thus, conducting a retrospective study allowed participants to reflect on the changes throughout their sibling relationship. Some participants explained that after high school they engaged in separate playing experiences (i.e., playing in different cities, playing on different teams). This allowed for participants to build opportunities and experiences on their own and to establish their individual

niche. It was evident that having separate playing experiences and opportunities provided most participants with a more positive sport experience. Therefore, choosing different paths and identities may help to reduce competition and rivalry (Ansbacher & Ansbacher, 1956; Schachter et al., 1976; Schachter et al., 1978) and could be a solution to help manage sibling relations.

The idea of choosing different paths and identities is consistent with sibling divergence theory, which states that as children of the same family mature, they undergo various adaptations and diversifications in their efforts to establish their individual niche (Darwin, 1859; Sulloway, 1996; Côté, 1999). Within the theory of divergence, the principle of competitive exclusion exists, which is a proposition stating that two species competing for the same resources cannot coexist without competition, jealousy, and/or rivalry occurring (Darwin, 1859; Sulloway, 1996). Both groups of participants experienced competitive exclusion, resulting in sibling competition, fighting for the same spot, motivation to beat their sibling counterpart, and jealousy. In accordance to Darwin's theory of divergence, siblings must exhibit character displacement within the family unit. Differences between siblings must be recognized and accentuated to reduce competition for the same resources and negative comparisons between siblings (Darwin, 1859; Brown & Wilson, 1956). Both participant groups expressed that being constantly compared to one another negatively influenced their sport participation. Siblings understood that specializing in different activities and/or sports could have helped eliminate sibling competition, jealousy, and/or rivalry (Sulloway, 1996; Sulloway, 2011). Sibling participants explored different paths and niches, however, the passion for their particular sport triumphed over all other activities and/or sports. Further, some sibling participants

recognized that their parents were more supportive of the more achieved and experienced sibling, which is consistent with Darwin's theory (Darwin, 1859; Sulloway, 2011).

Observational learning theory describes how and why siblings are similar; sibling deidentification and divergence processes function to separate sibling experiences and opportunities. The results from the present study suggest that the older and/or more achieved sibling can act as a role model and someone to look up to for the younger and/or less achieved sibling. However, the younger and/or less achieved sibling can experience feelings of jealousy, tension, and the need to prove to themselves and others the extent of their abilities, ultimately leading to a more negative sport experience. Therefore, the younger and/or less experienced sibling's initiative for deidentification can relate to the theory of sibling divergence. Although the younger and/or less experienced sibling did not pursue different interests and activities, the idea of divergence (Darwin, 1859; Sulloway, 1996) and deidentification processes (Ansbacher & Ansbacher, 1956) was suggested by participants. As previously mentioned, most participants explained that engaging in separate sport and playing experiences (i.e., playing in different cities, playing on different teams) provided them with a more positive sport experience as it decreased direct competition, tension, jealousy, and sibling comparisons.

This study was also guided by the Developmental Model of Sport Participation (DMSP: Côté, 1999). Since its inception, the DMSP has become a framework for understanding children's development in sport. In Fraser-Thomas and colleagues (2013) work, the idea of integrating sibling and parent influence into the DMSP is presented. With the current data, some links have been empirically explored and the integration of these links will be highlighted. Due to age and development of both participant groups,

the specializing and investment years will be reviewed.

At age 12, most athlete participants were in the specializing and investment years. During the specializing years, athletes begin to decrease the amount of sports they are involved in and during the investment years, youth commit to a single sport at the elite level (Côté & Fraser-Thomas, 2011). It is proposed that the investment years begin at age 16. However, all athlete participants were invested in one sport and at the elite level by age 14. In addition, most of the athletes were older than their sibling counterparts and were competing in the same sport. For the athletes, this served as motivation to perform to their full potential. Athlete participants wanted to provide their sibling with footsteps to follow in and to make their younger and less experienced sibling proud. Since most younger and less experienced siblings looked up to their older and more experienced sibling, athlete participants reflected on the increased pressure they felt to perform to their sibling's standards. In contrast, the younger and less experienced sibling participants felt motivated to push themselves harder in hopes to reach their potential and eventually outperform their older and more experienced sibling. For one participant group, the younger sibling was viewed as being the more experienced athlete. As the athlete began to develop in sport, a more common ground was created between athlete and sibling, which generated a peer relationship. The older and less experienced sibling felt pressure to outperform the younger and more experienced sibling simply because he or she was older and felt more physically and psychologically developed.

According to the work completed by Fraser-Thomas and colleagues (2013), it was projected that during the specializing years, siblings provide support and encouragement. In addition, during the investment years, jealousy and rivalry may occur due to the

increased support and resources provided to the more achieved athlete. Although these ideas have been presented, further investigation that includes siblings who both participate in sport as well as siblings participating in the same sport is required. Most athlete participants spoke of sibling competition in the form of pressure to perform, fighting for the same spot, and the constant comparison between siblings. Further, athletes experienced a variety of negative emotional responses (i.e., tension, annoyance, expectations to win, feelings of guilt) to these outcomes. In contrast, sibling participants generally spoke about the positive experiences of participating in the same sport. Siblings felt as though it provided them with someone to look up to, which contributed to a growth of sibling relationship and psychological development. However, when discussing their experiences competing against the more achieved sibling, it was evident that a competitive relationship existed. Competition stemmed from the constant comparison between siblings often resulting in a variety of negative emotional responses (i.e., jealousy, prove self). The comparison factor acted as one of the biggest negative experiences to both participant groups. This caused for a more tense and competitive relationship between siblings.

In regards to the DMSP, it is evident that both siblings and parents influence children's sport development. Due to the resources and time necessary to participate in elite sport, parents play a critical role in sustaining and maintaining sport participation. From the data collected, it is evident that there is a connectedness between sibling and parent influences. The family environment as a whole should provide encouragement and emotional support to one another. When parents are mindful of the distribution of resources within a family and siblings believe equal opportunities and support are being

provided to all siblings, sibling competition and rivalry can be reduced. It is also evident that both parents and older siblings can act as role models to youth involved in sport by portraying strong work ethics and displaying positive sportsmanship (Côté, 1999; Lauer et al., 2010). In addition, parents can play an important role in influencing children's development by emphasizing positive attitudes and modelling appropriate behaviours (Lauer et al., 2010). Similarly, siblings have the potential to influence social and personal development (Brody, 1998). Therefore the influences that both parents and siblings share have the potential to either positively or negatively impact elite youth sport development and participation.

Understanding Parent Influence

Another component to influence sibling relationships in sport is the parental role (Côté & Fraser-Thomas, 2011; Fraser-Thomas et al., 2013). Specifically, athlete participants felt as though parents positively contributed to their sport participation and sibling relationship in sport by offering equal opportunities, experiences, and support to both sibling counterparts. Although sibling participants agreed that parents contributed to a more positive sport experience during their adolescence, some siblings felt that their parents were more invested in the more achieved sibling-athlete. Both previous and current literature (Côté, 1999; Côté & Hay, 2002; Bean, Fortier, Post, & Chima, 2014) emphasize that the increased amount of time and resources placed on the more developed athlete often creates an uneven distribution of resources between siblings, resulting in tension or jealousy. Therefore, sibling participants expressed the need to prove their skill, desire, and passion for sport to their parents.

Consistent with the DMSP, it was evident that across all stages, parents continued

to teach and model life skills, contributing to a positive parent-athlete and parent-athlete-sibling relationship. Participants discussed how their parents always considered how their involvement influenced their sibling relationship. Further, parents played a very active role in their children's sport participation by providing them with sport opportunities and the necessary resources required (i.e., providing transportation, purchasing equipment, volunteering or fundraising for the club and/or sports team). According to the DMSP, as children begin to specialize in their sport, parents' provision of tangible support increases. Fraser-Thomas et al. (2013) discussed how the specializing and investment years may be challenging for the younger and/or less achieved sibling. The more achieved sibling-athlete may receive greater attention and resources, leading siblings to experience feelings of jealousy (Côté, 1999; Côté & Hay, 2002). For the most part, parents were mindful of meeting all their children's needs. However, some less achieved siblings felt as though their parents were more invested in the more achieved sibling's sport opportunities and experiences. Consistent with Fraser-Thomas and colleagues (2013) suggestions, this caused tension and jealousy to emulate between siblings. In addition, it was proposed that during the adolescent years, parents become less involved and provide more emotional support. The participants' parents did not always demonstrate these behaviours. Specifically, during the investment years parents continued to provide just as much tangible support in terms of transportation and financial support. In terms of emotional support, participants did not recognize a difference throughout the specializing and investment years. No gender differences were discussed related to parents in regard to tangible support.

Through the research and consistent with previous research, it was evident that

parental roles can be different among mothers and fathers (Averill & Power, 1995; Knight et al., 2010). Some gender differences among parents were noted. It was found that mothers were more involved with the mental side of sport by cheering on their children at every game, focusing on the process rather than the outcome, providing positive feedback and encouragement, and showing support to the whole team through fundraisers or team social events. In contrast, fathers were more involved in the physical aspects of the game by providing more constructive feedback specific to skill development. These differences reinforce previous research (Hellstedt, 1990; Averill & Power, 1995; Holt & Dunn, 2004; Knight et al., 2010) suggesting that mothers see themselves as providing greater sources of support, while fathers feel as though they offer more direct support through feedback, coaching, and instruction.

Generally, research shows that adolescent athletes do not listen to and appreciate their parents' sport-related feedback (Knight et al., 2010; Knight et al., 2011). It was highlighted in the current study that sport-related feedback was always available to both participant groups and that feedback was equal between both siblings. Feedback was viewed as more valuable from participants with parents who had backgrounds in high performance sport. However, for both participant groups, feedback was not appreciated during bad game experiences. Further and reiterating from above, most participants' fathers provided more sport specific feedback whereas their mothers provided more mental support. This is consistent with Holt and colleagues (2008) findings where fathers offer constructive sport-related feedback and mothers tend to offer a great deal of positive feedback and support. Literature pertaining to the DMSP does not explore or examine parental differences and the roles that fathers and mothers play.

Further, sibling participants implied that their parents negatively influenced their sport participation and sibling relationship due to the increased belief and investment in the more achieved sibling-athlete. Both previous and current literature (Côté, 1999; Côté & Hay, 2002; Bean, Fortier, Post, & Chima, 2014) emphasize that the increased amount of time and resources placed on the more developed athlete often creates an uneven distribution of resources between siblings. Further, for some sibling participants, parents thought that pursuing different interests outside of sport (i.e., focusing on education) was more valuable for them. It was suggested that their parents believed in the more achieved athlete's abilities and future in sport. This contributed to feelings of inferiority and self-doubt for some sibling participants. Consistent with previous literature (Colangelo, 1988; Davis & Meyer, 2008), sibling competition, whether it is in education or sport, may result in the younger and/or less achieved sibling feeling inferior to the older and/or more achieved siblings, resulting in jealousy and/or competition for resources (e.g., attention from parents) within the family (Sulloway, 1996). This contributed to an increase in pressure on some sibling participants, which emanated from the desire to prove to their parents the extent of their skill.

Sibling participants did not reflect on whether or not an open conversation about feelings, experiences, and expectations took place between siblings and parents. However, research suggests that open and communicative families result in more positive relationships (Beavers & Hampson, 2003). Families that are able to discuss emotional events may provide children with the resources to resolve adverse experiences' (Fivush, Bohanek, Robertson, & Duke, 2004). Brody, Stoneman, McCoy and Forehand (1992) found that sibling conflict could be minimized when parents allow children to be

involved in problem-solving discussions. In addition, family dialogue about parental differential treatment (i.e., increased time and resources spent on the more developed athlete) “may provide children with plausible explanations for parental behaviors, thereby allowing them to appreciate, challenge, or perhaps accept their parents’ position. Personal interpretations, attributional biases, and perceptions of fairness may also be corrected through family discussions” (Kowal, Krull, & Kramer, 2006, p. 279).

Parents encompass various types of tangible and intangible support during adolescence, which can shape the life chances of children (Swartz, 2009). In many families parents provide different amounts of support to different siblings, often creating within-family inequalities (Suitor, Pillemer, & Sechrist, 2006; Fingerman, Miller, Birditt, & Zarit, 2009; Conger & Little, 2010). These within-family inequalities can lead to perceived favouritism often resulting in sibling hostility, increased competitiveness, and jealousy (Whiteman, McHale, & Soli 2011; Meunier, Roskam, Stievenart, Van De Moortele, Browne, & Wade, 2012). Feelings of hostility are emphasized for the sibling who is less favoured or viewed as being less experienced, resulting in lower quality sibling relationships (Shanahan, McHale, Crouter, & Osgood, 2008). Parents’ unequal treatment could undermine sibling relationship quality, as siblings are each other’s best point of comparison for parental treatment. In fact, parental differential treatment is most pronounced in same-gender dyads (Coldwell, Pike, & Dunn, 2008). Since parental support remains important during adolescence, it is likely that sibling comparison processes are enhanced (White, 2001; Siennick, 2013). The notion that children are more likely to compare themselves to a same-gender sibling is consistent with findings from the current study as well as past research (e.g., Coldwell et al., 2008). It was evident that

some sibling participant's experienced parental differential treatment, which contributed to a more negative sport experience, increased competitiveness between siblings, and jealousy.

Based on the current findings, the probable sibling and parent experiences across the specializing and investment years can contribute to the already existing DMSP framework presented in Fraser-Thomas and colleagues (2013) work. Fraser-Thomas et al. (2013) suggested that both positive (i.e., support, encouragement) and negative (i.e., jealousy, rivalry) experiences could occur within sibling relationships when one sibling excels in sport over the other. In addition to these experiences, the current study uncovered further outcomes that may occur when siblings participate in the same sport. In regards to positive experiences, both athlete and sibling participant groups believed that participating in the same sport motivated them to perform to their potential and led to a growth of sibling relationship. Further, the more experienced athlete participants felt as though they acted as a role model for their less experienced sibling, which helped to inspire and motivate their sibling to perform better. Sibling participants recognized that participating in the same sport led to psychological development by increasing motivation and confidence during training and/or competition.

In regards to negative experiences, both participant groups acknowledged that participating in the same sport contributed to increased pressure to perform, sibling comparisons, a competitive relationship, competing for the same spot, tension, annoyance, jealousy, expectations to win, and a loss of confidence. Some of the current findings are consistent with previous research where sibling competition has been found to lead to a variety of negative implications including affective responses (i.e.,

annoyance, frustration, jealousy) (Davis & Meyer, 2008; Fraser-Thomas et al., 2008; Fraser-Thomas et al., 2013). There was also some overlap between the findings of the current study and the parental influences presented in Fraser-Thomas and colleagues (2013) work. Parents contribute to a more positive sport experience by providing equal tangible support, mental support, and sport-related feedback to both sibling counterparts (Davis & Meyer, 2008; Fraser-Thomas et al., 2013). However and in accordance to the current findings, parents can negatively influence sport participation as well. If siblings participate in the same sport and one sibling is recognized as being more developed, experienced, and achieved, the less experienced sibling may feel the need to prove the extent of their skills often resulting in a more negative sport experience (Davis & Meyer, 2008).

Suggestions for Managing Sibling Relationships in Sport

Based on findings from the current study as well as past and present research, three suggestions can be made to help manage sibling relations in sport. First, parents need to be mindful of the distribution of resources within the family unit. Parents must try to distribute resources (i.e., time, financial) equally between children regardless of their involvement and level of sport participation. Providing equal support (i.e., tangible and mental) and opportunities to all children is crucial in order to minimize jealousy and tension between siblings (Davis & Meyer, 2008; Fraser-Thomas et al., 2013; Bean et al., 2014). Further, having problem-solving conversations and open discussions with children about their experiences, beliefs, and expectations can help to lower levels of perceived favouritism and sibling conflict (Brody et al, 1992). Therefore parents must be open to sharing family interactions as it could lead to positive family relationships

(Beavers & Hampson, 2003).

Second, parents should encourage their children to participate in a variety of sports and activities during adolescence and to be given the opportunity to choose which sport and/or activity in which they will continue to be involved. If there is a child involved in sport at the elite level, siblings may benefit from becoming involved in another sport and/or activity. Further, it could provide them with the opportunity to develop skills and talent, athletic or otherwise, away from the shadow of the elite sibling athlete, providing them with their own individual niche (Darwin, 1859; Sulloway, 1996; Fraser-Thomas et al., 2013).

Third, it is important for parents to avoid discussing the comparisons and differences between siblings. As previously stated, it is common for siblings to be compared to one another and participating in the same sports and/or activities can accentuate this comparison. From the findings of the current study, it is evident that comparing abilities can cause jealousy, tension, and insecurities. Therefore, parents must be attentive to the negative consequences that this could create between siblings. For example, when praising one child, describe his or her accomplishment as opposed to comparing it to the other sibling's success. If athletes and parents begin to consider some of the implications of this study, we may begin to see youths having more positive sport experiences throughout development, and staying involved in sport throughout their adolescent years (Davis & Meyer, 2008; Fraser-Thomas et al., 2008; Fraser-Thomas et al., 2013).

Findings from the current study could also be helpful in the applied sport setting. By understanding the positive and negative influences siblings may have on sport

participation and development, sport psychology consultants will be better able to educate athletes, parents, and coaches about effective strategies and suggestions on how to best manage sibling relations in sport. The goal is to create a positive and enriching sport experience. Therefore, these suggestions could help facilitate the opportunities of both siblings and possibly inhibit negative sport experiences from occurring due to sibling competition, jealousy, and/or rivalry (Sulloway, 1996).

Strengths and Limitations

Research in the sport domain has emphasized the role of family and peers. However, sibling influence has been overlooked. The current study presents three main strengths. First and at the most general level, the study adds to a growing body of literature on sibling influence in sport. The results highlight that in addition to parents and peers, youth perceive siblings to be influential factors on sport participation and development. Such findings are critical as they indicate the need to broaden the lens through which family processes and their links to youth's individual development are viewed (Whiteman & Christiansen, 2008). Secondly, research of this nature could help to optimize participation and development in sport. As such, findings offer implications for athletes and parents; the study highlights the importance of open communication, growth of sibling relationships, and being provided with equal opportunities and experiences, leading to healthy reciprocal relationships. Lastly, verification techniques (member-checking, reliability check) were used during the research process, which helped to ensure a high degree of methodological rigor (Holt & Tamminen, 2010).

Conducting a retrospective study may be a limitation of the current investigation. With all retrospective studies, the data collected may be subject to bias and faulty recall

on previous life events. This could have limited the accuracy and reliability of the data offered by participants (Creswell, 1994). Despite this limitation, research in sport has often used a retrospective approach to data collection (Durand-Bush & Salmela, 2002; Gould, Dieffenbach, & Moffett, 2002; Holt & Dunn, 2004; Law et al., 2005). In addition, the sample size was relatively small and only included same-sex female sibling dyads. There were no same-sex male sibling dyads, mixed-sex sibling dyads, or twin participants. Therefore it is unknown as to whether siblings' reports of influence are unique to same-sex female sibling dyads or whether these experiences are universal across all sibling units. This can serve as a major limitation as the data collected is not a true depiction of all sibling relationships in sport. Participants in the current study were also solely involved in team sports. This could have served as a limitation as the data does not include sibling experiences and influences within individual sport settings. Age separation and birth order was also not taken into consideration. These characteristics could have contributed to the literature pertaining to sibling deidentification and divergence processes as research suggests that deidentification is most pronounced in siblings who were most objectively similar in age, birth order, and sex. Lastly, research conducted by Glaser and Strauss (1967) as well as Corbin and Strauss (2008) explicitly encourages researchers to write the literature review after completing data analysis. Therefore, the order in which this research process was conducted could serve as a limitation. According to Glaser (1998), researchers are advised to limit their prior reading before the exploration of grounded theory to minimize the development of assumptions and biases based on the literature explored.

Future Directions

There is a large gap in research pertaining to sibling relationships in sport. Future research in sport should examine the use of different research designs, dynamics in broader family and cultural contexts, gender difference between siblings, the similarities and/or differences between siblings involved in team and individual sports, sibling deidentification and divergence processes, birth order, sibling age separation, and sibling participation throughout the DMSP. First, researchers should use a longitudinal design to gain a deeper understanding on the developing interactions and experiences between siblings over time. This may help to educate athletes and parents about effective strategies, thereby inhibiting sibling tension and rivalry and contributing to a more positive sport experience (Sullo way, 1996; Davis & Meyer, 2008). Future research could also benefit from the development of questionnaires and scales that measure observational learning, differentiation influences, and divergence processes (Whiteman & Christiansen, 2008). Taking a quantitative approach would be beneficial to complement the detailed descriptions that qualitative research provides and to further uncover the key characteristics of sibling relationships in sport. In addition, exploring retrospective angles further (i.e., 20-30 years later) to uncover any developments related to enhanced sibling closeness and/or positive feelings about past experiences could be a valuable addition to the sport literature. This could help uncover the complexities of the sibling relationship and add to the suggestions made in regards to managing sibling relations in sport.

Further, the sample included siblings from married, two-parent, predominantly working and middle-class, Caucasian Canadian families from one geographic region. Researchers have suggested that because tangible support tends to be a pre-requisite for children's sport participation (Kirk et al., 1997a; Wolfenden & Holt, 2005; Lauer et al.,

2010), literature pertaining to sport involvement has focused primarily on children from middle to high socio-economic status. Therefore, future research exploring how families of lower socio-economic status support and facilitate optimal sport development is necessary (Fraser-Thomas et al., 2005).

Since all of the participants were same-sex female sibling dyads, future research would benefit from exploring and comparing the similarities and/or differences between same-sex male and mixed-sex siblings. Research of this nature would help uncover the role of all sibling relationships in sport and provide a true representation of these complex relationships. Research should also explore siblings who participate in coeducational sports (e.g., pairs figure skating) focusing on the perceptions of this unique dynamic. Sibling influences are not restricted to dyads and therefore future research is needed with families that include more than two siblings to better understand the nature of sibling influence. Furthermore, investigating sibling experiences and influences that extend beyond team sports to include individual sport settings may help to reveal more suggestions for athletes, parents, and coaches on how to best manage sibling relationships in elite youth sport. Although there is a large body of literature concerning birth order and sibling age separation, the topics are undervalued in the sport literature. From the research explored and provided, it is evident that birth order and age separation can have an affect on sibling relationships in sport. Future research on these topics could help facilitate optimal development in sport. Although some links have been explored in regards to sibling participation and interaction throughout the DMSP, much research must be done to close the gaps between trajectories. Previous and current research in regards to the DMSP does not explore siblings who are involved in the same sport and

the contextual factors that may be present within that relationship. Each of these topics contributes to a unique gap in literature and knowledge that could positively influence sibling relationships and sport involvement.

Lastly, given the applied nature of this research, it is critical that knowledge translation occurs. This can lead to effective strategies, techniques, and applications to manage sibling relationships in sport and other achievement domains. It is important to provide evidence-based support to athletes and parents that are consistent with current research linking family involvement with optimal child development in sport (Fraser-Thomas et al., 2013). From this, delivering workshops that provide recommendations surrounding this topic would be beneficial for parents of youth athletes. For example, highlighting the three suggestions (i.e., parents must be mindful of distribution of resources, parents should encourage their children to participate in a variety of sports and/or activities to establish their own individual niche, avoid sibling comparisons) could assist parents with managing sibling relations in sport.

Conclusion

The purpose of this study was to explore sibling relationships in elite youth sport and determine how siblings influence elite youth athletes' sport participation and how parents influence the sibling relationship. While much research still needs to be completed on the topic of sibling relationships in sport, the current study provides insight into how this relationship is viewed. Both athlete and sibling participants described the presence of both positive and negative experiences within their sibling athlete relationship. In regards to positive experiences, both participant groups expressed the closeness that participating in the same sport provided them with. Although some

positive experiences existed, many negative experiences were endured including a more tense and jealous relationship.

The results from the present study and in accordance to observational learning suggest that the older and/or more achieved sibling acts as a role model for the younger and/or less achieved sibling. However, sibling comparisons and competition can occur, which can lead the younger and/or less achieved sibling to experience feelings of jealousy, tension, and the need to prove oneself. Therefore, the younger and/or less experienced sibling may attempt to pursue different interests and activities. This supports the idea that divergence (Darwin, 1859; Sulloway, 1996) and deidentification processes (Ansbacher & Ansbacher, 1956) could help to decrease direct competition, tension, jealousy, and sibling comparisons. In addition, although some links have been explored in regards to sibling participation and interaction throughout the DMSP, siblings who are involved in the same sport as well as the contextual factors that may be present within that relationship must be investigated further to close the gaps between trajectories.

Further, siblings explained how they perceived the parental role and how parents can contribute to a healthier sibling relationship. For the most part, parents positively influenced sport participation by offering equal opportunities, experiences, and support to both siblings. However, some sibling participants implied that their parents were more invested in the more achieved sibling-athlete, resulting in a negative sport experience. Although the current research contributes to the theories and framework that guided this study, a vast amount of research still needs to be conducted to fill in the gaps and broaden the lens on how siblings influence sport participation, involvement, and development. Ideally, this research will lead to further literature on the topic, leading to healthy

reciprocal relationships and positive sport experiences.

References

- Ansbacher, H. L., & Ansbacher, R. R. (1956). *The individual psychology of Alfred Adler*. New York: Basic Books.
- Averill, P. M., & Power, T. G. (1995). Parental attitudes and children's experiences in soccer: Correlates of effort and enjoyment. *International Journal of Behavioural Development, 18*(2), 263-276. doi: 10.1177/016502549501800205
- Azmitia, M., & Hesser, J. (1993). Why siblings are important agents of cognitive development: A comparison of siblings and peers. *Child Development, 64*, 430–444. doi: 10.1111/j.1467-8624.1993.tb02919.x
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bean, C. N., Fortier, M., Post, C., & Chima, K. (2014). Understanding how organized youth sport may be harming individual players within the family unit: A literature review. *International Journal of Environmental Research and Public Health, 11*, 10226-10268. doi: 10.3390/ijerph111010226
- Beavers, W. R. & Hampson, R. B. (2003). Measuring family competence: The Beavers systems model. In F. Walsh (Ed.), *Normal family processes* (pp. 549-580). New York: Guilford Press.
- Bloom, B. S. (1985). *Developing talent in young people*. New York: Ballantine Books.
- Braun, V. & Clarke, V. (2013). *Successful Qualitative Research: a practical guide for beginners*. London, UK: Sage Publications, Inc.
- Brody, G. H. (1998). Sibling relationship quality: Its causes and consequences. *Annual Reviews of Psychology, 49*, 1-24. doi: 10.1146/annurev.psych.49.1.1
- Brody G. H., Stoneman Z, MacKinnon C. E., & MacKinnon R. (1985). Role relationships and behavior among preschool-aged and school-aged sibling pairs.

- Developmental Psychology*, 21, 124-129. doi: 10.1037/0012-1649.21.1.124
- Brody, G. H., Stoneman, Z., McCoy, K. & Forehand, R. (1992). Contemporaneous and longitudinal associations of sibling conflict with family relationship assessments and family discussions about sibling problems. *Child Development*, 63, 391-400. doi: 10.1111/j.1467-8624.1992.tb01635.x
- Bronfenbrenner, U. (2002). Developmental systems theory. In R. M. Lerner (Ed.), *Concepts and theories of human development* (pp. 200–242). Mahwah, NJ: Lawrence Erlbaum Associates.
- Brown, W. L., & Wilson, E. O. (1956). Character displacement. *Systematic Zoology*, 5(2), 49-64. Retrieved from <http://www.jstor.org/stable/i317753>
- Burnard, P. (1991). A method of analysing interview transcripts in qualitative research. *Nurse Education Today*, 11, 461-466. doi: 10.1016/0260-6917(91)90009-Y
- Byrant, A., & Charmaz, K. (Eds.). (2007). *The Sage handbook of grounded theory*. Thousand Oaks, CA: Sage.
- Carron, A. V., & Hausenblas, H. A. (1998). *Group dynamics in sport*. Morgantown, WV: Fitness Information Technology.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Charmaz, K., & Henwood, K. (2008). Grounded theory, In C. Willig & W. Stainton Rogers (Eds.), *The Sage handbook of qualitative research in psychology* (pp. 240-259). London: Sage.
- Conger, K. J., & Little, W. M. (2010). Sibling relationships during the transition to adulthood. *Child Development Perspectives*, 4, 87-94. doi: doi:10.1111/j.1750860

- 6.2010.00123.x
- Colangelo, N. (1988). Families of gifted children: The next ten years. *Roeper Review*, *11*, 16–18. doi: 10.1080/02783198809553153
- Coldwell, J., Pike, A., & Dunn, J. (2008). Maternal differential treatment and child adjustment: A multi-informant approach. *Social Development*, *17*(3), 596-612. doi: 10.1111/j.1467-9507.2007.00440.x
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, CA: Sage.
- Cornell, D. G. (1983). Gifted children: The impact of positive labeling on the family system. *American Journal of Orthopsychiatry*, *53*, 322-335. doi: 10.1111/j.1939-0025.1983.tb03376.x
- Cornell, D. G. (1984). *Families of gifted children*. Ann Arbor, MI: UMI Research Press.
- Cornell, D. G., & Grossberg, I. N. (1986). Siblings of children in gifted programs. *Journal for the Education of the Gifted*, *9*, 253–264. doi:10.1080/02783198809553153
- Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist*, *13*, 395-417. Retrieved from <http://journals.humankinetics.com.proxy2.lib.umanitoba.ca/AcuCustom/Sitename/Documents/DocumentItem/1937.pdf>
- Côté, J., Baker, J., & Abernethy, B. (2003). From play to practice: A developmental framework for the acquisition of expertise in team sport. In J. Starkes & K.A. Ericsson (Eds.), *Recent advances in research on sport expertise* (pp. 89-114).

- Champaign, IL: Human Kinetics.
- Côté, J., Ericsson, K. A., & Law, M. P. (2005). Tracing the development of athletes using retrospective interview methods: A proposed interview and validation procedure for reported information. *Journal of Applied Sport Psychology, 17*, 1-19. doi: 10.1080/10413200590907531
- Côté, J., & Hay, J. (2002). Children's involvement in sport: A developmental perspective. In J. M. Silva & D. E. Stevens (Eds.), *Psychological foundations of sport* (pp. 484-502). Boston, MA: Allyn & Bacon.
- Côté, J., & Fraser-Thomas, J. (2011). Youth involvement and positive development in sport. In P. R. E. Crocker (Ed.), *Sport psychology: A Canadian perspective* (2nd ed.) (pp. 226-255). Toronto, Canada: Pearson Prentice Hall.
- Côté, J., Salmela, J., Baria, A., & Russell, S. (1993). Organizing and interpreting unstructured qualitative data. *The Sport Psychologist, 7*, 127-137. Retrieved from <http://journals.humankinetics.com.proxy2.lib.umanitoba.ca/AcuCustom/Sitename/Documents/DocumentItem/10826.pdf>
- Côté, J., Young, B. W., Duffy, P., & North, J. (2007). Towards a definition of excellence in sport coaching. *International Journal of Coaching Science, 1*, 3-16. Retrieved from <http://www.skhs.queensu.ca/sportpsych/cotepubl/Cote,%20Young,%20Duffy%20&%20North%202007.pdf>
- Creswell, J. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Csikszentmihalyi, M., Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure*. Cambridge, UK: Cambridge University Press.

- Darwin, C. R. (1859). *On the origin of species by means of natural selection*. London: John Murray.
- Davis, N. W., & Meyer, B. B. (2008). When sibling becomes competitor: A qualitative investigation of same-sex sibling competition in elite sport. *Journal of Applied Sport Psychology, 20*(2), 220-235. doi: 10.1080/10413200701864817
- Dunn, J., & Munn, P. (1985). Becoming a family member: Family conflict and the development of social understanding in the second year. *Child Development, 56*, 480-492. doi: 10.1111/1467-8624.ep7251659
- Durand-Bush, N., & Salmela, J. H. (2002). The development and maintenance of expert athletic performance: Perceptions of World and Olympic champions. *Journal of Applied Sport Psychology, 14*, 154–171. doi: 10.1080/10413200290103473
- Engward, H. (2013). Understanding grounded theory. *Nursing Standard, 28*(7), 37-41. Retrieved from <http://web.b.ebscohost.com.proxy2.lib.umanitoba.ca/ehost/pdfviewer/pdfviewer?sid=3e06633a-5f71-4801-aa46-f55f148efdb2%40sessionmgr111&vid=1&hid=101>
- Ericsson, K. A., & Simon, H. A. (1993). *Protocol analysis: Verbal reports as data*. Cambridge: MIT Press.
- Ewing, M. (1999). The role of parents and coaches in the transition of youth in sports. In V. Hosek, P. Tilingier, & L. Bilek (Eds.), *Psychology of sport and exercise: enhancing the quality of life* (p. 173). *Proceedings of the 10th European congress of sport psychology (part 1)*. Prague: Charles University Press.
- Feinberg, M. E., & Hetherington, E. M. (2000). Sibling differentiation in adolescence: Implications for behavioral genetic theory. *Child Development, 71*, 1512–1524.

- doi: 10.1111/1467-8624.00243
- Feinberg, M. E., McHale, S. M., Crouter, A. C., & Cumsille, P. (2003). Sibling differentiation: Sibling and parent relationship trajectories in adolescence. *Child Development, 75*(5), 1261-1274. doi: 10.1111/1467-8624.00606
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140. doi: 10.1177/001872675400700202
- Festinger, L., Schachter, S., & Back, K. (1962). *Social pressures in informal groups: A study of human factors in housing*. New York: Harper & Brothers.
- Fingerman, K. L., Miller, L. M., Birditt, K. S., & Zarit, S. (2009). Giving to the good and the needy: Parental support of grown children. *Journal of Marriage and Family, 71*, 1220-1233. doi:10.1111/j.1741-3737.2009.00665.x
- Fivush, R., Bohanek, J., Robertson, R. & Duke, M. (2004). Family narratives and the development of children's emotional well-being. In M. W. Pratt & B. H. Fiese (Eds.), *Family stories and the life course* (pp. 55-76). Mahwah, NJ: Erlbaum.
- Fraser-Thomas, J., Côté, J., & Deakin, J. (2008). Understanding dropout and prolonged engagement in adolescent competitive sport. *Psychology of Sport and Exercise, 9*, 645- 662. doi: 10.1080/10413200802163549
- Fraser-Thomas, J., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. *Physical Education and Sport Pedagogy, 10*(1), 19-40. doi:10.1080/1740898042000334890
- Fraser-Thomas, J., Strachan, L., Jeffery-Tosoni, S. (2013). Family influence on children's involvement in sport. In; J. Côté and R. Lidor (Eds.), *Conditions of children's talent development in sport* (pp. 179-196). Morgantown, WV: Fitness Information

- Technology.
- Fredricks, J. A., & Eccles, J. S. (2004). Parental influences on youth involvement in sports. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 145-164). Morgantown, WV: Fitness Information Technology.
- Furman, W., & Buhrmester, D. (1985a). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology, 21*, 1016–1024. doi: 10.1037/0012-1649.21.6.1016
- Furman, W., & Buhrmester, D. (1985b). Children's perceptions of the qualities of sibling relationships. *Child Development, 56*, 448–461. doi: 10.1111/1467-8624.ep7251652
- Glaser, B. (1998). *Doing grounded theory: Issues and discussions*. Mill Valley, CA: Sociology Press.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Beverly Hills, CA: Sage.
- Gould, D., Damarjian, N., & Greenleaf, C. (2002). Imagery training for peak performance. In J. L. Van Raalte, & B. W. Brewer (Eds.), *Exploring sport and exercise psychology* (2nd ed.) (pp. 49–74). Washington, DC: American Psychological Association.
- Graham, P. (2014). Born to diverge: An evolutionary perspective on sibling personality development in Austen's novels. *Jane Austen Society of North America, 25*(1). Retrieved from <http://www.jasna.org/persuasions/on-line/vol25no1/graham.html>
- Grenier, M. E. (2014). Gifted children and other siblings. *Gifted Children Quarterly*,

- 29(4), 164-167. doi: 10.1177/001698628502900405
- Hadfield, L., Edwards, R., & Mauthner, M. (2013). Brothers and sisters: A sources of support for children in school? *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, 34(1), 65-72. doi:10.1080/0300427050057602
- Harwood, C., & Knight, C. (2009). Understanding parental stressors: An investigation of British tennis parents. *Journal of Sport Sciences*, 27(4), 339-351. doi: 10.1080/02640410802603871
- Hellstedt, J. (1990). Early adolescent's perceptions of parental pressure in the sport environment. *Journal of Sport Behavior*, 13, 135-144. Retrieved from <http://psycnet.apa.org/psycinfo/1991-07019-001>
- Holt, N. L., & Dunn, J. G. (2004). Toward a grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. *Journal of Applied Sport Psychology*, 16, 199-219. doi: 10.1080/10413200490437949
- Holt, N. L., Tamminen, K. A., Black, D. E., Sehn, Z. L., & Wall, M. P. (2008). Parental involvement in competitive youth sport settings. *Psychology of Sport and Exercise*, 9(5), 663-685. doi: 10.1016/j.psychsport.2007.08.001
- Holt, N. L., & Tamminen, K. A. (2010). Improving grounded theory research in sport and exercise psychology: Further reflections as a response to Mike Weed. *Psychology of Sport and Exercise*, 11, 405-413. doi: 10.1016/j.psychsport.2009.12.002
- Jowett, S., & Timson-Katchis, M. (2005). Social networks in sport: Parental influence on the coach-athlete relationship. *The Sport Psychologist*, 19, 267-287. Retrieved

- from <http://journals.humankinetics.com.proxy2.lib.umanitoba.ca/AcuCustom/Sitename/Documents/DocumentItem/4989.pdf>
- Juntumaa, B., Keski-Vaara, P., & Punamäki, R. (2005). Parenting, achievement strategies and satisfaction in ice hockey. *Scandinavian Journal of Psychology*, *46*(5), 411-420. doi: 10.1111/j.1467-9450.2005.00472.x
- Keegan, R. J., Harwood, C. G., Spray, C. M., & Lavallee, D. E. (2009). A qualitative investigation exploring the motivational climate in early career sports participants: Coach, parent and peer influences on sport motivation. *Psychology of Sport and Exercise*, *10*(3), 361-372. doi: 10.1016/j.psychsport.2008.12.003
- Keegan, R., Spray, C., Harwood, C., & Lavallee, D. (2010). The motivational atmosphere in youth sport: Coach, parent and peer influences on motivation in specializing sport participants. *Journal of Applied Sport Psychology*, *22*, 87-105. doi: 10.1080/10413200903421267
- Kirk, D., Carlson, T., O'Connon, A., Burke, P., Davis, K., & Glover, S. (1997a). The economic impact on families of children's participation in junior sport. *Australian Journal of Science and Medicine in Sport*, *29*(2), 27-33. Retrieved from https://secure.ausport.gov.au/__data/assets/pdf_file/0006/190770/KD1996full.pdf
- Kirk, D., Carlson, T., O'Connon, A., Burke, P., Davis, K., & Glover, S. (1997b). Time commitments in junior sport: Social consequences for participants and their families. *European Journal of Physical Education*, *2*, 51-73. doi: 10.1080/1740898970020105
- Klein, D. M., & White, J. M. (Eds.). (1996). *Family theories: An introduction*. Thousand

- Oaks, CA: Sage.
- Knight, C. J., Boden, C. M., & Holt, N. L. (2010). Junior tennis players' preferences for parental behaviours. *Journal of Applied Sport Psychology, 22*, 377–391. doi: 10.1080/10413200.2010.495324
- Knight, C. J., Neely, K. C., & Holt, N. L. (2011). Parental behaviours in team sports: How do female athletes want parents to behave? *Journal of Applied Sport Psychology, 23*, 76-92. doi: 10.1080/10413200.2010.525589
- Kowal, A. K., Krull, J. L., & Kramer, L. (2006). Shared understanding of parental differential treatment in families. *Social Development, 15*(2), 276-296. doi: 10.1046/j.1467-9507.2006.00341.x
- Larson, R., & Richards, M. H. (1994). *Divergent realities: The emotional lives of mothers, fathers, and adolescents*. New York: Basic Books.
- Lauer, L., Gould, D., Roman, N., & Pierce, M. (2010). Parental behaviors that affect junior tennis player development. *Psychology of Sport and Exercise, 11*(6), 487–496. doi: 10.1016/j.psychsport.2010.06.008
- Law, M. P., Côté, J., & Ericsson, K. A. (2015). Characteristics of expert development in rhythmic gymnastics: A retrospective study. *International Journal of Sport and Exercise Psychology, 5*(1), 82-103. doi: 10.1080/1612197X.2008.9671814
- McHale, S. M., & Crouter, A. C. (1996). The family contexts of children's sibling relationships. In G. Brody (Ed.), *Sibling relationships: Their causes and consequences* (pp. 173–195). Norwood, NJ: Ablex.
- Meunier, J. C., Roskam, I., Stievenart, M., Moortele, G., Browne, D. T., & Wade, M. (2012). Parental differential treatment, child's externalizing behavior and sibling

- relationships: Bridging links with child's perception of favoritism and personality, and parents' self-efficacy. *Journal of Social and Personal Relationships*, 29(5), 612–638. doi: 10.1177/0265407512443419
- Mischel, W. (1966). A social learning view of sex differences in behavior. In E. E. Maccoby (Ed.), *The development of sex differences* (pp. 57–81). Palo Alto, CA: Stanford University Press.
- Patton, M. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, California: Sage Publications, Inc.
- Pfouts, J. H. (1976). The sibling relationship: A forgotten dimension. *Social Work*, 21, 200–203. doi: 10.1093/sw/21.3.200
- Pfouts, J. H. (1980). Birth order, age-spacing, IQ differences and family relations. *Journal of Marriage and the Family*, 42, 517–531. Retrieved from <http://www.jstor.org/discover/10.2307/351896?uid=3739408&uid=2129&uid=2&uid=70&uid=3737720&uid=4&sid=21104421714271>
- Plomin, R., & Daniels, D. (1987). Why are children in the same family so different from one another? *Behavioural and Brain Sciences*, 10, 1–16. doi: 10.1093/ije/dyq148
- Richardson, J. (2001). Post-operative epidural analgesia: introducing evidence-based guidelines through an education and assessment process. *Journal of Clinical Nursing*, 10, 238-245. doi: 10.1111/j.1365-2702.2001.00480.x
- Romeo, F. F. (1994). A child's birth order: Educational implications. *Journal of Instructional Psychology*, 21, 155–160. Retrieved from <http://www.jasminkantarevic.com/P-BirthOrder.pdf>
- Rowe, D., & Plomin, R. (1981). The importance of nonshared (E1) environmental

- influences in behavioral development. *Developmental Psychology*, *17*, 517–531.
doi: 10.1177/0093854808318495
- Salmela, J. H. (1994). Phases and transitions across sport careers. In D. Hackfort (Ed.), *Psychosocial issues and interventions in elite sports* (pp. 11–28). Frankfurt: Lang.
- Scanlan, T. K., & Lewthwaite, R. (1988). From stress to enjoyment: Parental and coach influences on young participants. In E. W. Brown, & C. F. Branta (Eds.), *Sports for children* (pp. 41–48). Champaign, IL: Human Kinetics.
- Schachter, F. F., Gilutz, G., Shore, E., & Adler, M. (1978). Sibling deidentification judged by mothers: Cross validation and developmental studies. *Child Development*, *49*, 543–546. Retrieved from <http://www.jstor.org/stable/1128728>
- Schachter, F. F., Shore, E., Feldman-Rotman, S., Marquis, R. E., & Campbell, S. (1976). Sibling deidentification. *Developmental Psychology*, *12*, 418–427. doi: 10.1037/0012-1649.12.5.418
- Seidman, I. (1991). *Interviewing as qualitative research*. New York: Teachers College Press.
- Shanahan, L., McHale, S. M., Crouter, A. C., & Osgood, D. W. (2008). Linkages between parents' differential treatment, youth depressive symptoms, and sibling relationships. *Journal of Marriage and Family*, *70*, 480-494. doi:10.1111/j.1741-3737.2008.00495.x
- Siennick, S. E. (2013). Still the favorite? Parents' differential treatment of siblings entering young adulthood. *Journal of Marriage and Family*, *75*, 981-994. doi: 10.1111/jomf.12048

- Statistics Canada. (2011). *General Social Survey 2010*. Ottawa: Minister of Industry.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, California: Sage.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. London: Sage Publications.
- Strachan, L., Côté, J., & Deacon, J. (2009). "Specializers" versus "samplers" in youth sport: Comparing experiences and outcomes. *The Sport Psychologist*, 23(1), 77-92. Retrieved from <http://journals.humankinetics.com.proxy2.lib.umanitoba.ca/tsp-back-issues/TSPVolume23Issue1March/SpecializersVersusSamplersinYouthSportComparingExperiencesandOutcomes>
- Strachan, L., Côté, J., & Deakin, J. (2009). An evaluation of personal and contextual factors in competitive youth sport. *Journal of Applied Sport Psychology*, 21, 340-355. doi: 10.1080/10413200903018667
- Stein, G. L., Raedeke, T. D., & Glenn, S. D. (1999). Children's perceptions of parent sport involvement: It's not how much but to what degree that's important. *Journal of Sport Behavior*, 22, 591-602. Retrieved from <http://www.biomedsearch.com/article/Childrens-Perceptions-Parent-Sport-Involvement/58517924.html>
- Suitor, J. J., Pillemer, K., & Sechrist, J. (2006). Within-family differences in mothers' support to adult children. *Journals of Gerontology*, 61, S10-S17. doi: 10.1093/geronb/61.1.S10
- Sulloway, F. J. (1996). *Born to rebel: Birth order, family dynamics, and creative lives*. New York: Pantheon Books.
- Sulloway, F. (2011). Why siblings are like Darwin's finches: Birth order, sibling

- competition, and adaptive divergence within the family. In D. M. Buss & P. H. Hawley (Eds.), *The evolution of personality and individual differences* (pp. 86-119). New York: Oxford University Press.
- Swartz, T. T. (2009). Intergenerational family relations in adulthood: Patterns, variations, and implications in the contemporary United States. *Annual Review of Sociology*, 35, 191-212. doi:10.1146/annurev.soc.34.040507.134615
- Tesch, R. (1990). *Qualitative research analysis types and software tools*. New York: Falmer Press.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). Third International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS III). (1999). *Draft recommendations*. Punta del Este, Uruguay: United Nations Educational, Scientific and Cultural Organization.
- Weiss, R. S. (1968). Materials for theory of social relationships. In W. G. Bennis, E. H. Schein, F. I. Steele, & D. E. Berlew (Eds.), *Interpersonal dynamics: Essays and readings on human interaction* (pp. 154–163). Homewood, IL: Dorsey.
- Weiss, R. S. (1974). The provisions of social relationships. In Z. Rubin (Ed.), *Doing unto others*. Englewood Cliffs, NJ: Prentice-Hall.
- White, L. K. (2001). Sibling relationships over the life course: A panel analysis. *Journal of Marriage and Family*, 63, 555-568. doi:10.1111/j.1741- 3737.2001.00555.x
- Whiteman, S., & Christiansen, A. (2008). Processes of sibling influence in adolescence and family correlates. *Family Relations*, 57, 24-34. doi:10.1111/j.1741-3729.2007.00480.x

- Whiteman, S. D., McHale, S. M., & Crouter, A. C. (2007). Competing processes of sibling influence: Observational learning and sibling deidentification. *Social Development, 16*, 642 – 661. doi: 10.1111/j.1467-9507.2007.00409.x
- Whiteman, S. D., McHale, S. M., & Soli, A. (2011). Theoretical perspectives on sibling relationships. *Journal of Family Theory and Review, 3*(2), 124-139. doi: 10.1111/j.1756-2589.2011.00087.x
- Wuerth, S., Lee, M. J., & Alfermann, D. (2004). Parental involvement and athletes' career in youth sport. *Psychology of Sport and Exercise, 5*, 21–33. doi: 10.1016/S1469-0292(02)00047-X
- Wold, B., & Anderssen, N. (1992). Health promotion aspects of family and peer influences on sport participation. *International Journal of Sport Psychology, 23*(4), 343-359. Retrieved from <http://psycnet.apa.org/psycinfo/1993-39539-001>
- Wolfenden, L. E., & Holt, N. L. (2005). Talent development in elite junior tennis: Perceptions of players, parents, and coaches. *Journal of Applied Sport Psychology, 17*, 108-126. doi: 10.1080/10413200590932416

Appendix A

Interview Guide for Sibling

Sibling-Athlete Characteristics

1. Please state your name. What sport were you involved in and how old were you when you got started? Who is your sibling?
2. Describe your sport experiences growing up. How did you get started in sport? How many years were you involved in sport? How many hours per week did you spend training and participating in your sport?

Sport Participation

3. Both you and your sibling participated in the same sport. Did you ever consider a different sport? Why or why not?
4. Your sibling held a higher sport ranking growing up. How did this influence your sport participation? (Probes: How did this influence your relationship in sport?)
5. Participating in the same sport can lead to training and competing together. How did you feel when you watched your sibling participate in sport? How did you feel when your sibling watched you participate in sport?
6. How did it feel to play/compete with your sibling? How did it feel to play/compete against your sibling? Explain and give an example.
7. How did it feel to lose against your sibling? How did it feel to win against your sibling? (Probes: Share a story)
8. What was the best part about having your sibling in the same sport? What was the worst part about having your sibling in the same sport? Explain and give an example.

Parents

9. Parents can play a major role in your sport participation. How did you view your parents' role in contributing to your sport participation? (Probes: How did they support you? How much were they involved? How did they contribute to both you and your sibling's sport experiences?)
10. Did your parents provide you with sport-related feedback? (Probes: Did you find it useful? Did they provide feedback to both you and your sibling?)

Concluding Thoughts

11. Do you have any stories you would like to share about your sport experiences or participation as a sibling in the elite sport context?

Appendix B

Interview Guide for Athlete

Athlete Characteristics

1. Please state your name. What sport were you involved in and how old were you when you got started? Who is your sibling?
2. Describe your sport participation between the ages of 12 to 17. How did you get started in sport? How many years were you involved in sport? Were you involved in other sports? How many hours per week did you spend training and participating in your sport?
3. You were once identified as an elite youth athlete. What characteristics do you think led to that status? (Probes: Physical characteristics? Mental characteristics?)

Sport Participation

4. Both you and your sibling participated in the same sport. Can you discuss your relationship in sport growing up? (Probes: Why did this develop? Did you ever consider a different sport? Why or why not?)
5. You held a higher sport ranking than your sibling. How did this influence your sport participation? How did this influence your relationship?
6. Participating in the same sport can lead to training and competing together. Can you recall how you used to feel when you watched your sibling participate in sport? How did you feel when your sibling watched you participate in sport?
7. How did it feel to play/compete with your sibling? How did it feel to play/compete against your sibling? Explain and give an example.
8. How did you feel losing against your sibling? How did you feel winning against your sibling? (Probes: Share a story)

9. What was the best part about having your sibling in the same sport? What was the worst part about having your sibling in the same sport? Explain and give an example.

Parents

10. Parents can play a major role on sport participation. How did you view your parents' role in contributing to your sport participation? (Probes: How did they support you? How much were they involved? How did they contribute to both you and your sibling's sport experiences?)
11. Did your parents provide you with sport-related feedback? (Probes: Did you find it useful? Did they provide feedback to both you and your sibling?)

Concluding Thoughts

12. Do you have any stories you would like to share about your past sport experiences or participation as an elite youth athlete?

Appendix C

Informed Consent for Sibling

Research Project Title: Friend, foe, or both? A retrospective exploration of sibling relationships in elite youth sport

Researchers: Kendra Nelson, Primary Researcher, Faculty of Kinesiology and Recreation Management; Supervising Advisor: Dr. Leisha Strachan

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information. If you would like to receive a summary of the findings, please indicate this desire in the space provided at the end of this form.

You have been asked to participate in this study due to your experiences and involvement as a sibling in the elite youth sport context. The purpose of this study is to explore the influence siblings have on youth sport participation and development. Both parents and siblings influence talent development, however, most research focuses on parents and not the entire family unit. Therefore, identifying family dynamics that extend beyond parental involvement may be influential in understanding and improving youths' competence in sport. This research is guided by the following questions:

1. How do siblings influence an elite youth athlete's sport participation?
2. How do parents influence the sibling relationship in sport?

I am requesting your voluntary participation in this study, which has the potential to lend valuable information to families, coaches, and sport governing bodies. Participation in this study will take approximately 1.5 hours, and will involve:

- Audio recorded interview with the primary researcher (approximately 1-hour)
- Member checking (approximately .5 hour): The transcripts of the interview will be sent to you for review before the data analysis begins. This process will enable you to change, revise, clarify, or delete your responses to the interview questions.

The primary researcher will have access to all data (i.e. audio files and transcripts) and the supervising advisor will have access to the transcripts. The information provided by the participants will not be discussed or disclosed to any other individual with the exception of the primary researcher's thesis committee members: Dr. Jay Johnson and Dr. Caroline Piotrowski. The identities of the participants involved will not be discussed with the thesis committee members, or any other individuals. The data provided in the research will be used in the primary researcher's thesis, as well as potential publication in academic journals and both public and academic presentations. The identities of those who participated in the study will be protected in any presentation or publication. All data pertaining to the study will be shredded after a five-year period (January 2020) and audio files will be deleted immediately after the transcriptions are completed. The consent forms and transcripts obtained during the course of the study will be stored in a separate and secure location (e.g. separate drawers in the locked filing cabinet in room 119 Frank Kennedy Centre at the University of Manitoba) that will only be accessible to the primary researcher and the supervising advisor. Audio files will be kept on an encrypted USB drive that will be in the possession of the primary researcher and will be locked in the file cabinet when not in use.

The risk involved in the study is the potential identification as a participant based on the answers to the interview questions. To protect identity pseudonyms will be assigned to the participants. Participants may refuse to answer any questions. Participants may withdraw from the study at any time by contacting the primary researcher by phone or email. Any data relating to individuals who have withdrawn from the study will be immediately destroyed (within 1 day after withdrawing). This includes shredding the informed consent, deleting audio files, and shredding/deleting transcripts. Further, this study could cause the participant to experience emotional stress. Therefore, the necessary resources for support will be provided (e.g. access to counselling: Scott Erickson, 204-977-2252, scottmerickson@gmail.com).

This study is being completed as thesis research in accordance with the University of Manitoba's Faculty of Kinesiology and Recreation Management. Dr. Leisha Strachan is the supervising advisor for this thesis research and can be contacted at leisha.strachan@umanitoba.ca.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as participants. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/or refrain from answering any questions you prefer to omit, without prejudice or consequences. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This study has been approved by the Education/Nursing Research Ethics Board (ENREB) at the University of Manitoba, guaranteeing quality assurance. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC): Maggie Bowman at margaret.bowman@umanitoba.ca or 204-474-7122. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature: _____ Date: _____

Primary Researcher's Signature: _____ Date: _____

Primary Researcher:

Kendra Nelson

Graduate Student, Faculty of Kinesiology and Recreation Management
University of Manitoba

To be sent a summary of the results of this study please check here:

Yes: _____

No: _____

If yes, please include your email address or mailing address below:

Email address: _____

Mailing address: _____



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Faculty of Kinesiology
and Recreation Management

Appendix D

Informed Consent for Athlete

Research Project Title: Friend, foe, or both? A retrospective exploration of sibling relationships in elite youth sport

Researchers: Kendra Nelson, Primary Researcher, Faculty of Kinesiology and Recreation Management; Supervising Advisor: Dr. Leisha Strachan

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information. If you would like to receive a summary of the findings, please indicate this desire in the space provided at the end of this form.

You have been asked to participate in this study due to your experiences and involvement in the elite youth sport context. The purpose of this study is to explore the influence siblings have on youth sport participation and development. Both parents and siblings influence talent development, however, most research focuses on parents and not the entire family unit. Therefore, identifying family dynamics that extend beyond parental involvement may be influential in understanding and improving youths' competence in sport. This research is guided by the following questions:

1. How do siblings influence an elite youth athlete's sport participation?
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The risk involved in the study is the potential identification as a participant based on the answers to the interview questions. To protect identity pseudonyms will be assigned to the participants. Participants may refuse to answer any questions. Participants may withdraw from the study at any time by contacting the primary researcher by phone or email. Any data relating to individuals who have withdrawn from the study will be immediately destroyed (within 1 day after withdrawing). This includes shredding the informed consent, deleting audio files, and shredding/deleting transcripts. Further, this study could cause the participant to experience emotional stress. Therefore, the necessary resources for support will be provided (e.g. access to counselling: Scott Erickson, 204-977-2252, scottmerickson@gmail.com).

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Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as participants. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/or refrain from answering any questions you prefer to omit, without prejudice or consequences. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This study has been approved by the Education/Nursing Research Ethics Board (ENREB) at the University of Manitoba, guaranteeing quality assurance. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC): Maggie Bowman at margaret.bowman@umanitoba.ca or 204-474-7122. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature: _____ Date: _____

Primary Researcher's Signature: _____ Date: _____

Primary Researcher:

Kendra Nelson

Graduate Student, Faculty of Kinesiology and Recreation Management
University of Manitoba

To be sent a summary of the results of this study please check here:

Yes: _____

No: _____

If yes, please include your email address or mailing address below:

Email address: _____

Mailing address: _____

Appendix E

Sibling Categories and Themes

Categories	Themes	Sub-themes
Positive Experiences of Participating in the Same Sport	Growth of Sibling Relationship	Closer relationship
		Travel together
		Relating to each other
	Sibling Influence on Psychological Development	Sibling support
		Working together
		Looking up to sibling
Winning Against Sibling	Develop confidence	
	Motivation	
Negative Experiences of Participating in the Same Sport	Sibling Competition	Power to brag
		Excitement
		Comparison
	Emotional Response	Competitive relationship
		Sibling had it easier
		Guilty feelings
	Losing Against Sibling	Jealousy
		Dislikes losing
		Expected to win
Sibling Perspective of Parental Role	Parental Support	Loss of confidence
		Tangible support
		Understand experience

Influence on Skill
Development

Mental support

Sport-related feedback

Negative Influence of
Parent

Prove self

Appendix F

Athlete Categories and Themes

Categories	Themes	Sub-themes
Characteristics that Lead to Elite Status	Physical Development	Selection process
		Time commitment
		Physical skills
	Psychological Development	Mental toughness
		Confidence
		Leadership
		Responsibility
Positive Experiences of Participating in the Same Sport	Development of Understanding Between Siblings	Understand experiences
		Peer understanding
	Motivation	Motivation to be better
		Motivated sibling to be better
	Opportunities to Learn	Role model for sibling
	Building Experiences Together	Travel together
		Building memories
Separate Experiences	Playing separately	
Negative Experiences of Participating in the Same Sport	Sibling Competition	Pressure to perform
		Fighting for the same spot
		Always together
		Comparison
	Emotional Response	Tension

		Annoyance
		Feelings of guilt
		Expected to win
		Want the credit
<hr/>		
Athlete Perspective of Parental Role	Parental Support	Tangible support
		Mental support
		Instilling responsibility
	Influence on Skill Development	Sport-related feedback