

Actual and Perceived Coaches' Sportspersonship Behaviours and their Relationship
with Young Athletes' Sportspersonship Orientations

Laurissa C. Kenworthy, BSc

Submitted in partial fulfillment of the requirements for the degree
of Master of Arts in Applied Health Sciences
(Health & Physical Education)

Supervisor: Philip Sullivan, PhD

Faculty of Applied Health Sciences, Brock University
St. Catharines, Ontario

Laurissa C. Kenworthy © July 2010

Acknowledgements

Thank you to my supervisor Dr. Philip Sullivan for enabling me to study exactly what it is that I feel passionate about. I feel very lucky to have been able to do that. Thank you for your guidance. I enjoyed learning with you and from you. You provided me with many opportunities to attend conferences and helped me to develop as a researcher.

Thank you to my committee members Dr. Tim Elcombe and Dr. Ken Lodewyk for challenging me to think about my research in different ways. I enjoyed the discussions we shared and I learned from the feedback you gave me. A special thank you to Tim who first introduced me to the idea of ethics in sport during my undergraduate studies.

Thank you to my external examiner Dr. Skye Arthur-Banning for providing your expertise. It was wonderful to be able to share my excitement with someone who feels as enthusiastically as I do about this topic.

Thank you to Amr El Bouse for your assistance with data collection. Your commitment to this project and willingness to go above and beyond made my life so much easier.

Thanks for the laughs.

Thank you to the coaches and athletes who volunteered to participate in this study. Your involvement allowed me to learn new things. Watching the games and your interactions reinforced my love of sport.

Thank you to my family for your continued love and support. In particular, thank you to my Mom for always expecting excellence but reinforcing the importance of fun.

Thank you to my friends. I enjoyed our discussions about research and about life. The time we spent together and the sports we played have made my experience as a graduate student much more meaningful.

Abstract

Horn's (2008) model of coaching effectiveness provides a framework that outlines the antecedent factors that influence coaches' behaviours as well as the way in which coaches' behaviours can influence the psychosocial development of athletes. Perceived coaches' behaviours have been shown to predict the self-reported unsportsmanlike behaviours of young athletes (Shields et al., 2007). However, very few studies have examined actual coaches' sportsmanlike behaviours (Arthur-Banning et al., 2009; Côté et al., 1993; Trudel et al., 1991). The purpose of this exploratory study was to investigate the relationships between coaches' and athletes' sportsmanlike orientations and behaviours. Participants included competitive male basketball coaches ($N = 5$) and their male athletes aged 10 to 13 ($N = 48$). Two investigators systematically observed coaches' sportsmanlike behaviours. Subsequently, coaches and athletes completed questionnaires based on the Multidimensional Sportsmanlike Orientations Scale (MSOS; Vallerand et al., 1997). The results showed that coaches' self-reported sportsmanlike orientations and athletes' perceptions of their coaches behaviours were consistent with coaches' actual behaviours for respect for the rules and officials as well as for social conventions. A series of multiple regressions were conducted in order to determine whether or not athletes' perceptions of their coaches' sportsmanlike behaviours predicted the sportsmanlike orientations of athletes. The only significant regression model was for athletes' negative approach toward sport participation. The results also suggest that the MSOS has reliability and validity issues.

Table of Contents

Acknowledgements	ii
Abstract	iii
List of Tables	viii
List of Figures	ix
Chapter 1: The Literature	1
1.1 Introduction	1
1.2 Horn's (2008) Model of Coaching Effectiveness	2
1.2.1 Coaches' expectancies, values, beliefs and goals	3
1.2.2 Coaches' behaviour.....	4
1.2.3 Athletes' perceptions of their coaches' behaviour	7
1.2.4 Athletes' self-perceptions, beliefs and attitudes	8
1.3 Sportspersonship	13
1.3.1 Theoretical approaches	14
1.3.2 Defining sportspersonship	15
1.3.3 The multidimensional sportspersonship orientations scale.....	17
1.3.4 Coaches' influence on sportspersonship	18
1.3.5 Observation of coaches' sportspersonship behaviour	20
1.4 Conclusion	21
Chapter 2: Rationale, Research Questions and Hypotheses	23
2.1 Rationale	23
2.2 Research Questions	24
2.3 Hypotheses	25

2.4	Delimitations	26
2.5	Limitations	27
Chapter 3: Methodology		28
3.1	Participants.....	28
3.1.1	Coaches	28
3.1.2	Athletes	28
3.1.3	Time spent together.....	28
3.2	Procedure	29
3.3	Data Collection	30
3.3.1	Athlete questionnaires.....	30
3.3.2	Coach questionnaires	31
3.3.3	Observation of coach behaviour	32
3.4	Data Analysis	34
Chapter 4: Results		35
4.1	Systematic Observation	35
4.1.1	Interrater reliability	35
4.1.2	Observed sportpersonship behaviours	36
4.2	Research Question #1	36
4.2.1	Coach 1	37
4.2.2	Coach 2	38
4.2.3	Coach 3	38
4.2.4	Coach 4	39
4.2.5	Coach 5	39

4.3	Research Question #2	40
4.3.1	Reliability.....	40
4.3.2	Coach 1	42
4.3.3	Coach 2	42
4.3.4	Coach 3	42
4.3.5	Coach 4	43
4.3.6	Coach 5	43
4.4	Research Question #3	44
4.4.1	Treatment of missing data.....	44
4.4.2	Assumptions of multivariate analysis	44
4.4.3	Reliability.....	46
4.4.4	Pearson correlations	46
4.4.5	Regression analyses	47
	Chapter 5: Discussion	49
5.1	Observed Sportspersonship Behaviours	49
5.2	Research Question #1	50
5.3	Research Question #2	51
5.4	Research Question #3	52
5.5	Respect for the Opponents	53
5.6	Theoretical Contextualization	54
5.7	Reliability and Validity Issues	55
5.7.1	Criterion validity	56
5.7.2	Construct validity	57

5.7.3 Psychometrics	59
5.7.3.1 Interrater reliability	59
5.7.3.2 Cronbach's alpha	60
5.7.3.3 Factor structure	61
5.8 Limitations	62
5.9 Implications for Coach Education	63
5.10 Future Directions	63
References	65
Appendix A: Ethics Approval.....	75
Appendix B: Letter of Invitation (Email) - Coaches	77
Appendix C: Letter of Invitation - Parent(s)/Guardian(s).....	80
Appendix D: Coach Informed Consent	82
Appendix E: Parent/Guardian Informed Consent for Athlete	85
Appendix F: Assent Form for Athletes	88
Appendix G: Coach's Sportspersonship Behaviour Observation Form	90
Appendix H: Coach Questionnaire	92
Appendix I: Athlete Questionnaire	95

List of Tables

Table 1: Agreement and Disagreement of the Total Observed Sportspersonship Behaviours	35
Table 2: Sportspersonship Orientations and Observed Behaviours of (A) Coach 1, (B) Coach 2, (C) Coach 3, (D) Coach 4 and (E) Coach 5	37
Table 3: Observed Sportspersonship Behaviours and Team Averages of Athletes' Perceptions of the Sportspersonship Behaviours of (A) Coach 1, (B) Coach 2, (C) Coach 3, (D) Coach 4 and (E) Coach 5	41
Table 4: Mean, Standard Deviation, Skewness, Kurtosis, and Cronbach's Alpha Values of the MSOS-PCB and the MSOS	45
Table 5: Intercorrelations between the MSOS-PCB Dimensions and the MSOS Dimensions	46
Table 6: Pearson Correlations between Athletes' Perceptions of Coaches' Sportspersonship Behaviours and Athletes' Sportspersonship Orientations	47

List of Figures

Figure 1: Horn's (2008) model of coaching effectiveness.....	2
Figure 2: Results that support the links in Horn's (2008) model of coaching effectiveness.....	55

Chapter 1: The Literature

1.1 Introduction

In recent years, research on positive youth development has been gaining momentum. Earlier studies focused on a deficit reduction approach in which the goal was to reduce negative behaviours. However, the focus has shifted to view youth as resources to be developed (Lerner, Dowling, & Anderson, 2003). Youth are at an age during which developmental change is highly concentrated (Shields & Bredemeier, 1995). This period of time involves adjustments to changes in physical (e.g., puberty), cognitive and emotional characteristics as well as social expectations (Lerner & Steinberg, 2004).

Based on participation numbers alone, organized youth sport provides a valuable context in which developmental assets can be learned. In 2008, Clark examined trends in organized sport participation in Canada of children aged 5 to 14. It was found that 51% of children took part in sport at least once a week. Furthermore, about half of these active youth participated in more than one sport and were involved in sport activities on average about 2.6 times per week per sport.

Adult influences play an important role in youth development. Within the youth sport context, coaches shape the nature and quality of the sport experience. Through their words and behaviours, coaches influence both the athletes' performances and their psychosocial well-being (Horn, 1992). The sport environment is very interactive and provides many opportunities to learn and display personal and social qualities. Research has shown that coaches can foster positive youth development. However, it is equally important to recognize that coaches can have a negative influence on athlete outcomes (Hellison, 2003).

1.2 Horn's (2008) Model of Coaching Effectiveness

Horn's (2008) model of coaching effectiveness provides a framework that outlines the antecedent factors that influence coaches' behaviours as well as the way in which coaches' behaviours can influence the psychosocial development of athletes (see Figure 1).

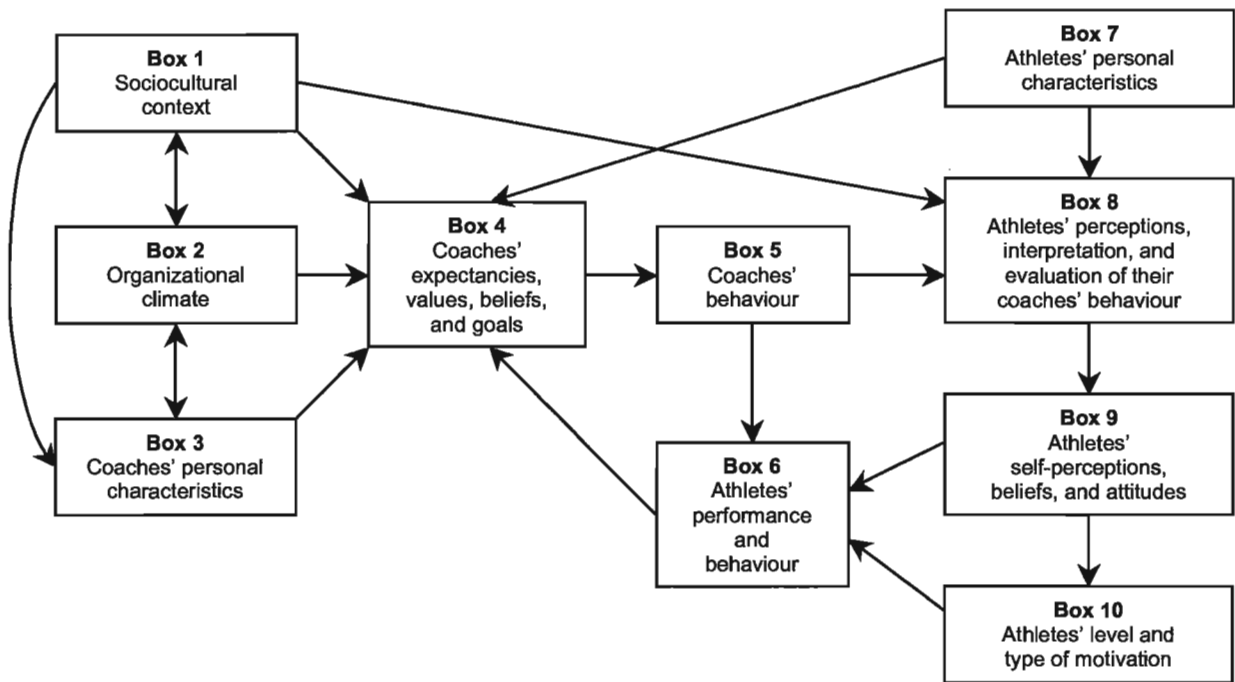


Figure 1. Horn's (2008) model of coaching effectiveness

Central to this conceptual framework is coaches' behaviour. Antecedent factors (i.e., sociocultural context, organizational climate and personal characteristics of the coach) and athlete personal characteristics (i.e., gender, age, etc.) exert an influence on coaches' behaviour indirectly through coaches' expectancies, values, beliefs and goals. Coaches' behaviour can directly affect athletes' performance and behaviour or can indirectly affect athletes' performance and behaviour through athlete related variables. Horn (2008) suggests that the effectiveness of different types of coaching behaviours will

be mediated by both situational and individual difference variables. Numerous studies have been conducted that support the links suggested by Horn's (2008) model of coaching effectiveness (Allen & Howe, 1998; Boixados, Cruz, Torregrosa, & Valiente, 2004; Hollembeak & Amorose, 2005; Smith, Smoll, & Curtis, 1979; Price & Weiss, 2000).

1.2.1 Coaches' expectancies, values, beliefs and goals (box 4). Coaching efficacy is one line of research that has examined coaches' beliefs and their relationship with coaching behaviours. Feltz, Chase, Moritz and Sullivan (1999) defined coaching efficacy as the extent to which coaches believe they have the capacity to affect the learning and performance of their athletes. Feltz et al. (1999) conceptualized coaching efficacy to include four dimensions consisting of game strategy, motivation, teaching technique and character building. Game strategy efficacy was defined as the confidence coaches have in their ability to coach during competition and lead their team to a successful performance. Motivation efficacy was defined as the belief coaches have in their ability to affect the psychological skills and motivational states of their athletes. Teaching technique efficacy involved the confidence coaches have in their instructional skills. Lastly, character building efficacy was defined as the confidence coaches have in their ability to influence a positive attitude towards sport in their athletes. Subsequently, Feltz et al. (1999) developed and validated the Coaching Efficacy Scale (CES) to measure coaches' efficacy beliefs in the four dimensions. Using the CES, Feltz et al. (1999) examined coaching efficacy beliefs and their relationship with observed coaching behaviours. It was found that coaches with high efficacy beliefs gave more praise and encouragement and less instruction and organization than low efficacy coaches.

Sullivan and Kent (2003) found further evidence supporting the link between coaching beliefs and coaching behaviour. Two hundred and twenty-four intercollegiate coaches completed the CES and the Leadership Scale for Sports (LSS). The LSS measures self-perceptions of leader behaviours. Teaching and instruction was highly correlated with all factors of coaching efficacy. Variables of social support and positive feedback were correlated with motivation, character building, and teaching technique efficacy. Furthermore, training and instruction and positive feedback were both predicted by motivation and teaching efficacy. In other words, as coaches were more confident in their ability to motivate and teach their athletes, they were closer to their image of the ideal leader with respect to using positive feedback, and appropriate training and instruction. Furthermore, coaches with higher efficacy beliefs engaged in these behaviours to a greater extent.

1.2.2 Coaches' behaviour (box 5). A number of studies have examined coaching behaviour using observation, questionnaires and interviews. Smith, Smoll and colleagues (Smith & Smoll, 1990; Smith, Smoll, & Barnett, 1995; Smith, Smoll, & Curtis, 1978; Smith, Smoll, & Hunt, 1977; Smith, Zane, Smoll, & Coppel, 1983; Smoll, Smith, Barnett, & Everett, 1993) have systematically studied coaches' influence on young athletes' psychological development. In their preliminary research, Smith et al. (1977) developed the Coaching Behaviour Assessment System (CBAS). This system allows investigators to directly observe coaching behaviours during practices and games. Relationships between coaches' scores on behavioural dimensions and athlete related measures offered clear evidence for the important role of the coach. The most positive athlete outcomes were achieved when coaches engaged in high levels of reinforcement

for both desirable performance and effort and responded to mistakes with encouragement and technical instruction (Smoll & Smith, 2002).

Although the CBAS (Smith et al., 1977) is the most frequently used systematic observation instrument for examining coaching behaviour, other instruments have been developed and used. Tharp and Gallimore (1976) were the first investigators to study coaching behaviour using systematic observation. They developed a 10-category system that allowed for the assessment of the frequency of different types of coaching behaviours. This instrument (the Coaching Behaviour Recording Form) was used to observe a highly successful basketball coach at the University of California in Los Angeles named John Wooden. During the fifteen practices that Wooden was observed, it was found that half of his behaviours were instructional. Further research has been conducted using modified versions of Tharp and Gallimore's (1976) instrument to observe youth sport coaches' behaviour in basketball (Lacy & Goldston, 1990) and football (Lacy & Darst, 1985). The Arizona State University Observation Instrument (ASUOI) was developed by Lacy and colleagues (Lacy & Darst, 1985; Lacy and Goldston, 1990). The ASUOI has 11 categories of coaching behaviour, 7 of which are related to instructional behaviour. Initially, Lacy and Darst (1985) observed the behaviours of 10 winning high school head football coaches. It was found that instruction occurred more than twice as often than any other form of communication. Subsequently, Lacy and Goldston (1990) observed 10 high school basketball coaches. The results were consistent showing that almost half of the interactions between coaches and athletes during practices were instructional. These studies highlight the necessity of instructional behaviours for effective coaching.

Questionnaires have also been used frequently to study coaching behaviour. Chelladurai and Saleh (1980) developed the Leadership Scale for Sports (LSS) to examine the effects of coaches' leadership style on athletes' psychosocial development. The LSS measures five behaviours including training and instruction, democratic behaviour, autocratic behaviour, social support and positive feedback. These studies have mostly been based on Chelladurai's (1990, 2007) multidimensional model of leadership (MML). The MML suggests that athletes will perform optimally and have the greatest satisfaction if the coach behaves in a way that is consistent with the leadership behaviours that the athletes prefer and with the behaviours required of the leader given the particular situation. The leadership dimensions that are most often positively associated with athletes' level of satisfaction are democratic leadership styles and high frequencies of social support, positive feedback and training and instruction. Research has shown that these leadership behaviours are effective in increasing athletes' performance and psychosocial well-being. In contrast, an autocratic leadership style has been linked to low levels of satisfaction and more negative athlete psychosocial outcomes (Horn, 2008).

The Perceived Motivational Climate in Sport Questionnaire (PMCSQ-1, Walling, Duda, & Chi, 1993; PMCSQ-2, Newton, Duda, & Yin, 2000) is another questionnaire that has been used in the coaching effectiveness literature. This questionnaire was developed to assess athletes' perceptions about the type of motivational climate that their coaches create. Achievement goal theory (Nicholls, 1989) has been the main theory of motivation used to study the coach-created motivational climate. Achievement goal theory is a social-cognitive theory of achievement motivation that explains achievement behaviour through an individual's beliefs about the causes of success and failure. The

motivational climate refers to the goals emphasized and the values conveyed to individuals by significant others. The significant others (e.g., the coach) who structure the achievement situation can influence individuals to become more task or ego involved. Ames and colleagues (Ames, 1992; Ames & Archer, 1988) have argued that there are two motivational climates and have labeled these as mastery motivational climate (task-involving) and performance motivational climate (ego-involving). A perceived mastery motivational climate refers to a setting in which learning and skill development are emphasized. A perceived performance motivational climate refers to a setting in which outperforming others is viewed as most important. Research has consistently demonstrated that positive outcomes are associated with a mastery motivational climate (Boixados et al., 2004; Miller, Roberts, & Ommundsen, 2004; Ommundsen, Roberts, Lemyre, & Treasure, 2003).

Another methodology that has been used to investigate coaching behaviour is the interview (Bloom, Durand-Bush, Salmela, 1997; Côté & Salmela, 1996; Gould, Collins, Lauer & Chung, 2007). This approach allows researchers to gain in-depth information about why coaches behave the way they do.

1.2.3 Athletes' perceptions of their coaches' behaviour (box 8). Horn's (2008) model of coaching effectiveness suggests that coaches' behaviours have an indirect effect on athletes' self-perceptions, beliefs and attitudes. This influence is mediated by the athletes' perceptions, interpretation and evaluation of their coaches' behaviour (see Figure 1). Smith, Smoll and colleagues have used the mediational model of coach-athlete interactions in their research which is based on the same notion. The mediational model suggests that coaching behaviours indirectly affect athletes' evaluative

reactions and are mediated by athletes' perception and recall. In other words, the way athletes interpret and remember their coaches' behaviour and the meaning that athletes attribute to them affects how athletes evaluate their sport experiences (Smith & Smoll, 2002, 2007).

An important finding in the evaluation of coaching behaviour is the degree of accuracy with which coaches perceive their own behaviour. The correlations between coaches' ratings of how frequently they performed certain behaviours with actual observed behaviours were generally low and not statistically significant (Smith et al., 1978). Conversely, children's ratings on the same perceived behaviours correlated much more highly with observed behaviours (Smith et al., 1978). This finding suggests that athletes are more accurate perceivers of actual coach behaviours.

1.2.4 Athletes' self-perceptions, beliefs and attitudes (box 9). Research has examined the effects of coaching behaviours on athletes' self-perceptions, beliefs and attitudes. Studies have mainly examined coaches' behaviour in terms of feedback patterns, leadership style and the coach-created motivational climate. Importantly, these coaching behaviours have been related to athletes' self-perceptions, beliefs and attitudes.

The effects of coaches' feedback patterns have been extensively studied. Based on their empirical research findings, Smith et al. (1979) developed a set of behavioural guidelines for youth sport coaches known as Coaching Effectiveness Training (CET). This intervention program was implemented with 31 coaches of Little League baseball players aged 10 to 15 years. Youth sport coaches were assigned to either an experimental group or to a control group. The experimental coaches were involved in a preseason CET training program designed to teach them to develop the coaching behaviours identified as

effective in the earlier descriptive studies (i.e., engage in high levels of reinforcement for desirable performance and effort and respond to mistakes with encouragement and technical instruction). The young athletes who played for the trained coaches exhibited an increase in self-esteem, a decrease in anxiety, enjoyed their sport experience more and evaluated their coaches more favorably even though the win-loss record did not differ between teams with trained and untrained coaches (Smith et al., 1979). This research design illustrates that coaches' behaviour has an important influence on the self-perceptions and beliefs of athletes.

Further research has been conducted on the effects of the coaching behaviours of trained CET coaches and untrained coaches. Smoll et al. (1993) investigated the impact of coaching behaviours on players' self-enhancement processes. Results indicated that low self-esteem youth who played for trained CET coaches demonstrated a significant increase in self-esteem during the season, whereas low self-esteem children who played for untrained coaches did not. Subsequently, Smith et al. (1995) examined the influence of coaching behaviours on players' sport performance anxiety. It was found that children who played for the CET trained coaches decreased in sport performance anxiety over the course of the season, whereas those who played for the control coaches did not change.

Other studies have investigated the effects of coach feedback styles on athletes' levels of perceived competence (Allen & Howe, 1998; Brustad, 1993; Horn, 1985). Horn (1985) found that the behaviours of coaches made a significant difference to adolescent female softball players' perceptions of their competencies. Participants included high school softball players aged 13 to 15 years. Player's self-perceptions of ability across an entire season were examined in relation to the reinforcement patterns of coaches in both

practices and games. Players who received higher frequencies of positive reinforcement or no reinforcement from the coach following successful performances had lower perceptions of competence. Players who received higher frequencies of criticism in response to unsuccessful performances had higher perceptions of competence. Upon further examination of the data, Horn (1985) found that the positive reinforcement statements given by the coaches were more general. In contrast, the coaches' use of criticism usually included information on how to improve. Additionally, Brustad (1993) noted that children who received more frequent but less specific feedback were likely to believe that they had a lower ability because the coach did not praise others who performed at a comparable level on the task. Therefore, the quality and appropriateness of praise provided by coaches is crucial in influencing children's self-perception of their competence.

Similarly, Allen and Howe (1998) examined factors that contribute to athletes' levels of perceived competence. Specifically, they investigated the relationship between athlete ability and coach feedback with the perceived competence of the athlete. Participants included 123 female athletes aged 14 to 18 who participated at a high level of competitive field hockey. Athletes reported their perceptions of their coaches' use of feedback and their own field hockey competence. It was found that more frequent praise and information given by the coach in response to a good performance was related to higher perceptions of competence. On the other hand, more frequent encouragement and corrective information given by the coach following mistakes was related to lower perceptions of competence. It is clear that coaching feedback patterns effect young athletes' psychological development in important ways.

Numerous studies have been conducted using the Leadership Scale for Sports (LSS) (Chelladurai & Saleh, 1980) to examine the effects of coaches' leadership style on athletes' psychosocial development. Price and Weiss (2000) used the LSS to investigate the effects of particular coaching leadership styles on athletes' enjoyment, perceived competence, anxiety and burnout. Participants included 193 female soccer players and 15 head coaches of high school teams. Athletes' perceptions of greater training and instruction, social support, positive feedback, democratic decisions, and less autocratic behaviour were related to more positive psychological outcomes including increased perceived competence and enjoyment and were related to less negative psychological outcomes including decreased anxiety and burnout (Price & Weiss, 2000).

The LSS was also used to examine whether collegiate athletes' perceptions of their coaches' behaviour would directly affect their self-perceptions of competence, autonomy and relatedness (Hollembek & Amorose, 2005). Participants in this study included 280 male and female university athletes aged 17 to 25 years. It was found that perceived democratic coach behaviour was positively related to athletes' perceptions of autonomy. Also, coaches' positive feedback behaviour was positively linked to athletes' perceptions of relatedness but negatively related to their perceptions of sport competence. In contrast, an autocratic coaching style was negatively linked to athletes' perceptions of autonomy and relatedness. As well, training and instructional coaching behaviour was negatively related to athletes' perceptions of autonomy (Hollembek & Amorose, 2005). Research conducted in the sport settings has found that coaches' leadership styles influence athletes' psychosocial responses such as their sport enjoyment, level of anxiety and perceptions of competence, autonomy and relatedness.

Coaches' behaviours in terms of the coach-created motivational climate have been extensively studied. The majority of research has concentrated on perceptions of the motivational climate created by coaches using the Perceived Motivational Climate in Sport Questionnaire (PMCSQ-1, Walling et al., 1993; PMCSQ-2, Newton et al., 2000). A mastery oriented motivational climate established by coaches has been linked to a variety of positive athlete outcome variables such as sport enjoyment, satisfaction, perceived competence and fair play attitudes (Boixados et al., 2004). A mastery oriented motivational climate has also been linked to positive moral functioning and stronger sportpersonship values in athletes (Miller, Roberts, & Ommundsen, 2004; Ommundsen, Roberts, Lemyre, & Treasure, 2003). On the other hand, a performance oriented motivational climate established by coaches has been linked to low levels of sportpersonship (Miller et al., 2004; Ommundsen et al., 2003), less mature moral reasoning and lower moral functioning (Kavussanu & Spray, 2006) and acceptance of rough play (Boixados et al., 2004).

Research has examined the relationships among perceptions of the motivational climate, satisfaction, perceived ability and fair play attitudes in young soccer players (Boixados et al., 2004). Participants included 472 males aged 10 to 14 years old. It was found that perceptions of a task-involving climate were positively associated with satisfaction in practices and self-referenced perceived ability and were inversely related to rough play attitudes and normative perceived ability. In addition, perceptions of an ego-involving motivational climate were related positively with normative perceived ability and with favorable attitudes towards winning a soccer game. The highest level of acceptance of rough play was found in the subgroup with a low-task/high-ego orientation.

The lowest level of acceptance of rough play was found in the opposite subgroup of high-task/low-ego.

Research has also investigated the effect of the perceived motivational climate on sportspersonship among competitive youth soccer players (Miller et al., 2004).

Participants included 714 males and females between the ages of 12 and 14. It was found that players perceiving a high mastery climate endorsed sportspersonship more than those players perceiving a low mastery climate. Also, players perceiving a high performance climate were less likely to endorse sportspersonship than players perceiving a low performance climate. Research has consistently demonstrated the importance of creating more of a mastery motivational climate and less of a performance motivational climate in sport to support the development of positive social values.

1.3 Sportspersonship

Horn's (2008) model of coaching effectiveness has important implications in terms of sportspersonship (see Figure 1). It can be expected that coaches' beliefs in terms of sportspersonship will exert a direct influence on their actual sportspersonship behaviour. In turn, coaches' behaviours will directly affect athletes' perceptions of their coaches' behaviour. And athletes' perceptions of their coaches' behaviour will have a direct impact on athletes' beliefs in terms of sportspersonship.

Significant potential exists in organized sport to promote positive sportspersonship. Conversely, sport has been shown to promote unsportspersonlike behaviours such as aggression and cheating (Shields & Bredemeier, 1995). The sport environment provides coaches and athletes with many opportunities to interact with others in ways that have moral significance. There are many individual and contextual

factors in the sport environment that influence moral behaviour (Shields & Bredemeier, 1995). It is necessary to examine these factors in order to understand their impact on the sportspersonship of young athletes.

1.3.1 Theoretical approaches. Numerous studies have examined sportspersonship and moral behaviour in the sporting domain (see Shields & Bredemeier, 1995, for a review). Three theoretical approaches have guided this research: social-learning, structural-development and social-psychological perspectives. The social-learning approach suggests that modeling and reinforcement shape perceptions of appropriate and inappropriate behaviours (Bandura, 1986 as cited in Shields & Bredemeier, 2001). Punishments and positive and negative reinforcements are used to teach and change behaviour. For example, if an athlete demonstrates a desired behaviour, a coach can use positive reinforcement to increase the likelihood that the athlete will repeat the behaviour. The structural-development approach suggests that moral reasoning is the major determinant of behaviour (Kohlberg, 1976 as cited in Shields & Bredemeier, 2001). Moral reasoning goes through several stages of development by processes of cognitive maturation and social interaction. A more mature level of moral reasoning contributes to a lower tendency towards aggression in sport (Shields & Bredemeier, 1995; Shields & Bredemeier, 2001). The structural-development approach suggests that individuals are active participants in interpreting morality. The social-psychological approach to the study of sportspersonship has several propositions that relate to the definition of sportspersonship, the role of social determinants as well as the motivational orientation of the participant (Vallerand & Losier, 1994). There is a clear distinction between sportspersonship orientations, the development of sportspersonship orientations

and the display of sportspersonship behaviours. The orientations concern the self-perceptions about behaviours, the development relates to the process by which one develops behaviours and the display refers to actual behaviours (Vallerand & Losier, 1994). The social-psychological approach also considers social determinants as a major factor in predicting sportspersonship behaviours. Social determinants include such factors as cultural expectations, structural features (e.g., team versus individual sports), interpersonal influences (e.g., team norms) and situational aspects (e.g., costs versus benefits of behaviour). Finally, the motivational orientation of the participant is considered as a critical aspect of sportspersonship. The present study was guided by the social-psychological approach.

1.3.2 Defining sportspersonship. Research has been limited by a lack of consistency in the conceptualization of sportspersonship. The need to arrive at a widely accepted definition of sportspersonship was crucial in order to advance this field of research. Using a social-psychological approach, Vallerand, Deshaies, Cuerrier, Brière and Pelletier (1996) attempted to find an agreed upon definition of sportspersonship. Vallerand et al. (1996) conducted a study involving 1056 male and female French-Canadian athletes between the ages of 10 to 18 from various sports. Athletes were asked to complete a questionnaire that assessed the extent to which different sport situations and behaviours were related to the concept of sportspersonship. The results from a factor analysis showed that sportspersonship behaviours could be placed into five dimensions (Vallerand et al., 1996). The first dimension focuses on respect and concern for the rules and officials and is evidenced by respecting the rules even when an opponent cheats. The second dimension emphasizes respect and concern for the opponent and is evidenced by

considerations such as lending one's equipment to the opponent and agreeing to play even if the opponent is late. The third dimension considers respect and concern for social conventions in sport including shaking hands after a game and encouraging others. The fourth dimension deals with respect and concern for one's full commitment toward sport participation. Commitment is demonstrated through hard work during all practices and games and by continually striving to improve. The fifth dimension relates to negative approaches in sport participation. This includes showing a temper after making a mistake and having a win-at-all-costs approach toward sport. In the fifth dimension, sportpersonship is evidenced by the relative absence of a negative approach toward sport participation (Vallerand et al., 1996). Athletes will generally behave in ways that are consistent with their relative endorsement of the five sportpersonship dimensions (Vallerand, Brière, Blanchard and Provencher, 1997). Knortz (2009) expanded on the sportpersonship behaviours established by Vallerand et al. (1996) to develop a definition of each sportpersonship dimension (p. 28):

1. Rules and officials – referring to an athlete's respect for, and willingness to abide by, the rules of the sport and the officials who enforce them
2. Opponent dimension – referring to the level of respect and concern an athlete holds for his or her opponent
3. Social conventions – referring to an athlete's respect for the sport and his or her engagement in prosocial behaviours within the competitive sport context

4. Full commitment – referring to a respect for personal improvement through maximal effort and recognizing one's mistakes as a learning opportunity
5. Negative approach – referring to the extent to which an athlete reacts negatively to his or her sport participation

1.3.3 The multidimensional sportspersonship orientations scale. Using the Vallerand et al. (1996) definition of sportspersonship, the Multidimensional Sportspersonship Orientations Scale (MSOS) was developed for athletes (Vallerand et al., 1997). Extensive work has been completed to validate the MSOS including confirming the factor structure of the scale, assessing the internal consistency of the subscales and supporting the construct and discriminant validity of the scale (Vallerand et al., 1996, 1997; Vallerand & Losier, 1994). The MSOS measures athletes' orientations on the five sportspersonship dimensions. This scale provides a means to measure sportspersonship orientations in order to more fully understand the impact of individual and contextual differences on sportspersonship in young athletes.

Since the MSOS was developed and validated, researchers have examined different variables that relate to the sportspersonship orientations of young athletes (Dunn & Causgrove Dunn, 1999; Joyner & Mummery, 2005; Lemyre, Roberts & Ommundsen, 2002; Miller et al., 2004; Ommundsen et al., 2003; Vallerand et al., 1997). Several studies have investigated the relationship between sport type (i.e., individual or team sport) and sportspersonship orientations. Individual sport participants have been found to have greater respect and concern for the opponent (Vallerand et al., 1997) and greater respect and concern for the rules and officials (Joyner & Mummery, 2005) than team

sport participants. Research suggests that an athlete participating in a team sport may be more influenced by the social pressures to win than the athlete's own morals (Joyner & Mummery, 2005; Stephens, 2001; Stephens & Bredemeier, 1996). Therefore, perceptions of team norms may influence participants from team sports to act in a manner less sportspersonlike in order to win. Other studies have examined the relationship between goal orientations and sportpersonship orientations. It has been found that young athletes with higher levels of task orientation have higher levels of sportpersonship. On the other hand, higher levels of ego orientation have been found to be associated with lower levels of sportpersonship (Dunn & Causgrove Dunn, 1999; Lemyre et al., 2002). These findings are also consistent in terms of the perceived motivational climate. It has been found that young athletes perceiving a high mastery climate endorse sportpersonship more than those athletes perceiving a low mastery climate, and players perceiving a high performance climate were less likely to endorse sportpersonship than athletes perceiving a low performance climate (Miller et al., 2004; Ommundsen et al., 2003).

1.3.4 Coaches' influence on sportpersonship. Several studies have examined coaches' and athletes' perceptions of positive and negative sport behaviours using questionnaires (Shields, Bredemeier, LaVoi, & Power, 2005; Shields, LaVoi, Bredemeier, & Power, 2007; Stornes & Bru, 2002). Shields et al. (2005) investigated young athletes' perceptions of the frequency of their coaches' ethically relevant behaviours. The coaches' perceptions of their own behaviour were also measured. Additionally, the normative expectations for these same behaviours and the related sportpersonship attitudes were assessed among the young athletes and coaches. Participants included 803 young athletes between the ages of 9 to 15 from various sports

and 61 of their coaches. The study investigated themes of cheating, aggression and disrespect as well as positive sport conduct. Coaches' self-report on their behaviour revealed a relatively high percentage that have loudly argued with a sport official and have angrily yelled at a player for making a mistake. These two items were also identified as the highest percentages of youth perceived coaching behaviour. However, there was some discrepancy in reported behaviour. Youth reported problematic coaching behaviour more often than the coaches themselves. For example, 26% of youth, but only 10% of coaches, reported that the coach encouraged "getting back" at an opponent. Shields et al. (2005) suggested that this may be due to the coaches' self-reports being biased by social desirability factors. In terms of the attitudes toward positive sport behaviours, the results indicated that there was significant disagreement, both across respondent groups and within each group.

Stornes and Bru (2002) examined sportspersonship among adolescent handball players. Specifically, players' perceptions of their coaches' leadership were associated with athletes' sportspersonship orientations. Participants included 440 male athletes aged 14 to 16. It was found that players' perceptions of democratic behaviour, social support and positive feedback were positively and significantly associated with the positive dimensions of sportspersonship. Furthermore, players' perceptions of autocratic behaviour were significantly associated with scores for the negative dimensions of sportspersonship. The results suggest that athletes' perceptions of their coaches' behaviours are related to athletes' sportspersonship orientations.

Research has also examined coach and athlete behaviours related to issues of fairness and respect (e.g. cheating, hurting, arguing, teasing, etc.). Shields et al. (2007)

used a questionnaire to investigate poor sportspersonship in youth sport. Participants included 676 young athletes between the ages of 9 to 15. Results revealed that self-reported unsportspersonlike behaviours of young athletes were best predicted by perceived coach behaviours. Shields et al. (2007) suggest that it may be the coaches' behaviour, rather than their expressed attitude, that matters most to athletes. These studies highlight the need to further examine coaches' behaviour in terms of sportspersonship and the impact these behaviours have on athletes.

1.3.5 Observation of coaches' sportspersonship behaviour. To date, only three studies have examined morally relevant coaching behaviour in sport using direct observation (Trudel, Guertin, Bernard, Boileau & Marcotte, 1991; Côté, Trudel, Bernard, Boileau & Marcotte, 1993; Arthur-Banning, Wells, Baker & Hegreiness, 2009). Trudel et al. (1991) developed an observation form to code seven different coach behaviours during games. The seven behaviours were regrouped into three categories including coach behaviours toward the referee, coach behaviours that encouraged players' physical contact and coach behaviours that encouraged players' respect or violations of the rules. Specifically, the behaviour of ice hockey coaches' was observed over 27 games to see if their actions could be related to athletes' aggressive acts. Participants included 11 ice hockey coaches of athletes between the ages of 14 and 15. Results revealed that coaches did not directly ask athletes to be aggressive. However, coaches did shout their disagreement at the referee and asked for more intensity from their athletes. Trudel et al. (1991) argued that asking for more intensity could be perceived by athletes in certain situations as asking for more aggression.

Subsequently, Côté et al. (1993) observed coaching behaviour during different game score differentials. Participants included 23 ice hockey coaches of athletes between the ages of 14 and 15. The observation form developed in their previous study was used to observe 65 different games. The purpose of the study was to observe whether coaching behaviour changed during different game score differentials (i.e., winning or losing). The results indicated that when coaches were losing, they tended to disagree more with the referee than when they were winning. Also, when losing, the coaches exhibited conflicting behaviours such as encouraging their athletes to respect the rules while at the same time showing their disagreement with these rules. Côté et al. (1993) concluded that when losing, coaches' behaviour could play a major role in influencing aggressive acts in their athletes.

A very recent study examined the positive and negative sportspersonship behaviours of coaches in youth recreational sport. Arthur-Banning et al. (2009) observed the behaviours of coaches and athletes in 142 youth basketball games. Participants included 8 to 12 year old athletes and their coaches. This research was conducted in a recreational league so the pressures to win might be different than in situations of higher levels of competition (Arthur-Banning, Paisley, & Wells, 2007). Results indicated that coaches displayed more positive behaviours than negative behaviours.

1.4 Conclusion

Research has shown that adults have an important influence on athletes' attitudes and behaviours through the modeling that occurs in the sport environment (Shields, LaVoi, Bredemeier, & Power, 2007; Smoll, Smith, Barnett, & Everett, 1993). Horn's (2008) model of coaching effectiveness supports the notion that coaches' beliefs

influence coaches' behaviour. In turn, coaches' behaviour affect athletes' perceptions of coaches' behaviour. Finally, athletes' perceptions of coaches' behaviour impact the self-perceptions and beliefs of athletes. The multidimensional definition of sportspersonship provides a way in which the sportspersonship orientations and behaviours of coaches and athletes can be studied (Vallerand et al., 1996). Given the significant role that coaches play in the sport environment, insight into how coaches behave in terms of sportspersonship is important.

Chapter 2: Rationale, Research Questions and Hypotheses

2.1 Rationale

Horn's (2008) model of coaching effectiveness provides a comprehensive framework that outlines the ways in which coaches' behaviours can affect the psychosocial development of athletes (see Figure 1). Numerous studies have examined and provided support for the links in Horn's (2008) model. Coaches' behaviours have been related to athletes' self-esteem (Smith et al., 1979; Smoll et al., 1993), perceived competence (Allen & Howe, 1998), sport performance anxiety (Smith et al., 1995) and sport enjoyment (Price & Weiss, 2000, Boixados et al., 2004).

Sportspersonship is an important aspect of the psychosocial development of athletes. Vallerand et al. (1996) have proposed a multidimensional definition of sportspersonship. Subsequently, the MSOS was developed and validated to measure athletes' orientations on the five sportspersonship dimensions (Vallerand et al., 1997). Using the MSOS, many variables have been related to the sportspersonship orientations of young athletes (Dunn & Causgrove Dunn, 1999; Lemyre et al., 2002; Miller et al., 2004; Ommundsen et al., 2003).

Theory and research have suggested that coaches' sportspersonship behaviours should be related to the sportspersonship orientations of young athletes. However, little research has been conducted to investigate this relationship. Furthermore, no study has examined coaching behaviours using the Vallerand et al. (1997) multidimensional definition of sportspersonship. A greater understanding of how coaches' behave in relation to each sportspersonship dimension could be achieved by using this definition. The present study examined coaches' sportspersonship orientations, coaches' behaviours,

athletes' perceptions of their coaches' behaviours as well as athletes' self-perceptions in terms of sportspersonship. No other research has investigated these factors in combination as they relate to sportspersonship.

The significant relationship that coaches' behaviours have with athlete outcomes highlights the need for more research in this area. Gaining a better understanding of coaches' sportspersonship behaviours, how these behaviours are perceived by athletes and their relationship with athlete outcomes will help practitioners improve the youth sport environment. Therefore, this study has important implications in terms of coach education specifically related to coach behaviour.

2.2 Research Questions

The primary purpose of this study was to examine actual coaching behaviours in terms of sportspersonship using direct systematic observation. Coaches' sportspersonship orientations were compared to their actual behaviour. In turn, actual coaching behaviours were compared to athletes' perceptions of coaches' behaviours. As well, athletes' perceptions of their coaches' behaviours were compared to athletes' self-perceptions and beliefs in terms of sportspersonship. The links between boxes 4 and 5, boxes 5 and 8, and boxes 8 and 9 of Horn's (2008) model of coaching effectiveness in terms of sportspersonship were investigated (see Figure 1). This study had two research aims. The first aim was to examine three specific research questions. The second aim was to examine the reliability and validity of the MSOS. The following three research questions were examined in the present study:

1. Were the sportspersonship orientations of youth sport coaches consistent with their actual behaviours?

2. Were actual coaching behaviours consistent with athletes' perceptions of their coaches' sportspersonship behaviours?
3. Did athletes' perceptions of their coaches' sportspersonship behaviours predict the sportspersonship orientations of athletes?

2.3 Hypotheses

Based on theory and previous research, the following hypotheses were put forth:

1. The sportspersonship orientations of youth sport coaches were expected to be consistent with their actual behaviours.

Rationale: Coaching beliefs have been shown to relate to coaching behaviours (Feltz et al., 1999; Sullivan & Kent, 2003).

2. Actual coaching behaviours were expected to be consistent with athletes' perceptions of their coaches' sportspersonship behaviours.

Rationale: Research has found that athletes' ratings on perceived coaching behaviour scales correlated with observed coaching behaviours (Smith et al., 1978). This suggests that athletes are accurate perceivers of actual coach behaviours.

3. Athletes' perceptions of their coaches' sportspersonship behaviours were expected to predict the sportspersonship orientations of athletes.

Rationale: Numerous studies have found that athletes' perceptions of their coaches' behaviours significantly relate to many athlete outcomes such as self-esteem (Smith et al., 1979), self-perceived competence (Allen & Howe, 1998; Price & Weiss, 2000), autonomy (Hollembeak & Amorose, 2005) and sport enjoyment (Boixados et al., 2004; Price & Weiss, 2000). Furthermore, Shields et

al. (2007) found that self-reported unsportspersonlike behaviours of young athletes were predicted by perceived coach behaviours.

2.4 Delimitations

This was the first study to examine coaches' beliefs, actual coaches' behaviours, athletes' perceptions of their coaches' behaviours and athletes' self-perception in terms of sportspersonship. Several delimitations were inherent in this exploratory study that limit generalization.

First, only athletes aged 10 to 13 years old participated in this study. Age has been shown to greatly affect developmental outcomes including moral variables (Conroy, Silva, Newcomer, Walker, & Johnson, 2001). This particular age group was selected because the literature suggests that youth are less influenced by adults and become more influenced by their peers as they get older (Stuart & Ebbeck, 1995).

Second, this research was conducted with male participants only. This includes both the coaches and the athletes. Research has shown that male and female athletes differ in their sportspersonship orientations (Miller et al., 2004). Therefore, it is possible that coaches' behaviours impact males and females differently depending on how they perceive the behaviours. It is also possible that males and females perceive their coaches' behaviours differently depending on whether their coach is male or female. Research has shown that most youth sport coaches are male (Trudel & Gilbert, 2006). For these reasons, all participants were male.

Third, basketball was the only youth sport studied. Research has shown that sportspersonship orientations differ between sport type (i.e., individual or team sport) (Joyner & Mummery, 2005; Vallerand et al., 1997). Furthermore, basketball is played in

a gymnasium where athletes are in close proximity to their coach. Coach behaviours may affect athletes differently depending on the distance between them during a game.

Several other delimitations need to be recognized including the total number of participants and the number of games observed for each coach. These delimitations were imposed to establish a workable research problem. However, these delimitations influenced the power of the analysis.

2.5 Limitations

Several limitations must be recognized in the design of this study. First, this study had a cross sectional design. Therefore, conclusions about cause and effect relationships could not be made. Only relationships between coaches' sportspersonship orientations, coaches' sportspersonship behaviours, athletes' perception of their coaches' sportspersonship behaviours and athletes' sportspersonship orientations could be assessed. Longitudinal research designs would allow investigators to examine cause and effect relationships. This could be accomplished by following the same group of athletes with the same coach for a number of seasons and recording changes over time. Second, the reliability and validity of the measures used in this study must be considered. This was the first study to use the Coaches' Sportspersonship Behaviour Observation Form (CSBOF). Third, this study did not investigate the intent (i.e., reasons or motives) behind the coaches' behaviours. Shields and Bredemeier (1995) have suggested that understanding the reasons behind one's actions provides more insight into the true nature of the behaviour. However, this is beyond the scope of the present study.

Chapter 3: Methodology

3.1 Participants

Five male basketball coaches and their male athletes ($N = 48$) were recruited to participate in this study. Participants were selected from several basketball organizations in Southern Ontario. Coaches and athletes in the major atom and bantam competitive divisions were eligible to take part in this study.

3.1.1 Coaches. The coaches ($N = 5$) ranged in age from 23 to 58 years ($M = 43.0$, $SD = 13.1$). Four coaches were Caucasian and one coach was African/African Canadian. Coaches varied in their level of education. Two coaches had a graduate or professional degree and three coaches had a Bachelors degree. Three coaches reported that they had completed their National Coaching Certification Program Level 2 (two coaches did not report their coaching education). Participants reported that they had been coaching all sports for a range of 3 to 25 years ($M = 14.4$, $SD = 10.8$). More specifically, participants reported that they had been coaching competitive youth basketball for a range of 2 to 10 years ($M = 4.2$, $SD = 3.3$).

3.1.2 Athletes. The athletes ($N = 48$) ranged in age from 10 to 13 years ($M = 11.2$, $SD = 0.6$) (two athletes did not report their age). Participants included 39 Caucasians players, 7 African/African Canadian players and 2 players were reported as Other. Athletes reported having participated in competitive basketball for a range of 1 to 5 years ($M = 2.7$, $SD = 1.3$).

3.1.3 Time spent together. Athletes reported having played for their current head coach for a range of 1 to 4 years ($M = 1.8$, $SD = 0.9$). Coaches reported that their

team practiced 3 to 3.5 hours a week and participated in competitions for 1 to 2.5 hours a week.

3.2 Procedures

Upon receiving institutional ethics approval, the President of each of the basketball organizations was contacted by email to introduce and explain all aspects of the study (see Appendices A and B). The basketball organizations were asked to forward an email to the eligible coaches to invite them to participate in the study. Coaches who were interested contacted the primary investigator by email. The study was explained in greater detail and the coach and athlete involvement in the research was emphasized. However, it became evident that a more effective way to recruit participants was to send an email to coaches that were registered for specific tournaments that the investigators were going to attend. Once a coach agreed to participate, he was given a letter of introduction to send home with his athletes (see Appendix C). A meeting was arranged with each team's coaches, players and parents. This allowed the primary investigator to explain the study and address any questions or concerns. At this meeting, a letter of informed consent was given to the coach, parents and athletes to sign (see Appendices D, E and F). These letters were collected and retained by the investigator. Data collection began after the midpoint of the season. Each coach was observed and his behaviours were coded live by two investigators during two games (see Appendix G). All of the coaches were observed during the preliminary round of tournament play. At least one week later, the primary investigator attended a team practice and had the coach and athletes complete questionnaires (see Appendices H and I). All of the athletes present at the completion of the questionnaires responded. Importantly, the order of the athlete questionnaires were

counterbalanced. Participants were reminded to answer the questionnaires honestly.

Responses were kept confidential and participants were not identified in any way.

Athletes were also assured that their coaches would never be told how they responded to the questions. The primary investigator was present to answer any questions that arose.

3.3 Data Collection

All of the measures used in this study were based on the Multidimensional Sportspersonship Orientations Scale (MSOS; Vallerand et al., 1997). Data was collected using athlete questionnaires, coach questionnaires and direct systematic observation of coach behaviour.

3.3.1 Athlete questionnaires. Athlete questionnaires included a demographics questionnaire, the MSOS and the Multidimensional Sportspersonship Orientations Scale - Perceived Coach Behaviour (MSOS-PCB). The demographics questionnaire asked participants their age, their ethnicity, how many years they had played sport in an organized league (all sports), the number of years they had played competitive basketball and how many of years they had played for their current coach.

The MSOS contained 25 items to assess athletes' sportspersonship orientations in the five dimensions (Vallerand et al., 1997). Sportspersonship orientations was measured on a 5-point scale from 1 (doesn't correspond to me at all) to 5 (corresponds to me exactly). Examples of items include "I help the opponent get up after a fall," and "I think about ways to improve my weaknesses".

The MSOS-PCB contained 25 items. The wording of the items on the MSOS were changed in order to assess athletes' perception of their coach's sportspersonship behaviour. Perceived coaches' sportspersonship behaviour was measured on a 5-point

scale from 1 (doesn't correspond to him at all) to 5 (corresponds to him exactly).

Examples of items include "After a competition, my coach congratulates the opponent for his good performance," and "When an opponent gets hurt, my coach asks the referee to stop the game so that he can get help".

3.3.2 Coach questionnaires. The coach questionnaires included a demographics questionnaire and the Multidimensional Sportspersonship Orientations Scale for Youth Sport Coaches (MSOS-YSC; Kenworthy & Sullivan, 2009). The demographics questionnaire asked participants to indicate their age, their ethnicity, their highest level of education achieved, whether they had any coaching certification, and if they did, the highest level achieved, how long they had been a coach (all sports) and how long they had been a competitive youth basketball coach.

The field of sportspersonship has been without a sound scale assessing coaches' individual differences in sportspersonship orientation. Therefore, the primary investigator conducted preliminary research to develop and validate the MSOS-YSC (Kenworthy & Sullivan, 2009). First, a focus group was conducted in order to examine the face and content validity of the scale. Second, 386 youth sport coaches completed the MSOS-YSC and a modified version of the Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992). A confirmatory factor analysis suggested that the original five-factor sportspersonship model was less than adequate for youth sport coaches. After five revisions, a four-factor model was found to have good factor structure (CFI=0.89, RMSEA=0.07). The four-factor model for youth sport coaches was found to be internally consistent with Cronbach's alpha varying between 0.72 and 0.87. Additionally, sportspersonship orientations were significantly and positively correlated with the task

orientation of youth sport coaches which further established the construct validity of the scale. The four factors include respect and concern for the rules and officials, respect and concern for social conventions, respect and concern for the opponent, and respect and concern for one's full commitment toward sport participation. The MSOS-YSC contains 16 items to assess the sportspersonship orientations of youth sport coaches.

Sportspersonship orientations were measured on a 5-point scale from 1 (doesn't correspond to me at all) to 5 (corresponds to me exactly). Examples of items include "After a defeat, I shake hands with the opponents' coach," and "I really obey all rules of my sport".

3.3.3 Observation of coach behaviour. The Coach's Sportspersonship Behaviour Observation Form (CSBOF) was used to code the frequency of positive and negative sportspersonship behaviours of basketball coaches during games. Positive sportspersonship behaviours were defined as voluntary behaviours that helped or benefited another individual (i.e., an athlete) or group of individuals (i.e., the team) (Kavussanu, Seal, & Phillips, 2006). On the other hand, negative sportspersonship behaviours were defined as voluntary behaviours that harmed or disadvantaged another individual or group of individuals (Kavussanu et al., 2006). Consistent with the MSOS, the five categories of coach behaviours were related to the rules and officials, the opponents, social conventions, full commitment and a negative approach toward sport participation. Behaviours included in the rules and officials dimension consisted of verbal praise towards an official as well as clapping for a referee's call. Behaviours included in the opponent dimension consisted of specific encouraging remarks or gestures towards the opponent, helping an opponent up after a fall and helping an injured opponent.

Behaviours included in the social conventions dimension consisted of shaking hands with a referee or opponent and passing the ball to the referee or opponent. Behaviours included in the full commitment dimension consisted of encouraging comments or gestures towards one's own players as well as providing instructions with a motivational component. Behaviours included in the negative approach toward sport participation consist of verbally disagreeing or arguing with a referee, gestures consistent with disagreement with the referee, ignoring a referee's direction, comments or gestures to demean opponents, talking during free-throws, arguing with an opponent, verbal frustration towards one's own players, actions demonstrating frustration towards one's own players, displaying acts of aggression, showing up late, not bringing equipment and not being prepared.

Observers were trained to identify behaviours consistent with positive and negative sportspersonship. Observer training was performed by the primary investigator who was familiar with the sportspersonship research. The background of the study was discussed with the second observer, the CSBOF was reviewed and examples of behaviours were given. The primary investigator and the second observer then watched video clips of a youth basketball coach and coded his behaviours on the observation form. After each video clip, the observers discussed the behaviours. If there were any discrepancies in how the observers coded the video clip, the behaviours were clarified by the primary investigator and the video clip was watched again to reinforce the discussion (Arthur-Banning et al., 2009).

During the study, observation began when athletes started warming-up on the basketball court. Observation ceased when the coach and athletes packed up their bags

and left their respective bench. Measures were taken to minimize interference with the coaches' regular activities.

3.4 Data Analysis

A mixed-method approach was used to conduct the data analysis. For the first research question, a coach-by-coach qualitative analysis was done to compare coaches' sportspersonship orientations with their actual behaviours. For the second research question, a coach-by-coach qualitative analysis was done to compare coaches' actual behaviours with athletes' perceptions of their coaches' sportspersonship behaviours. For the third research question, the data was analyzed using the software program Statistical Package for the Social Sciences (SPSS) version 17.0. A series of multiple regressions were conducted in order to determine whether or not athletes' perceptions of their coaches' sportspersonship behaviours predicted the sportspersonship orientations of athletes. There was one regression for each of the five MSOS factors (athletes' sportspersonship orientations). In each model, the five MSOS-PCB (athletes' perceptions of their coaches' behaviours) were used as predictor variables.

Chapter 4: Results

4.1 Systematic Observation

Two observers independently and simultaneously coded five coaches' sportspersonship behaviours during a total of 10 basketball games. Observer 1 and Observer 2 agreed on 789 behaviours (see Table 1). Of the 789 behaviours, 665 were positive and 124 were negative. By far the most frequently observed sportspersonship behaviours were coded in the full commitment dimension.

Table 1

Agreement and Disagreement of the Total Observed Sportspersonship Behaviours

	Sportspersonship dimension	Observer 1					
		1	2	3	4	5	6 ^a
Observer 2	1. Rules and officials	39	0	0	9	0	12
	2. Opponents	0	0	0	0	0	0
	3. Social conventions	0	0	53	0	0	0
	4. Full commitment	11	1	0	573	5	177
	5. Negative approach	0	0	0	0	124	65
	6. Not observed ^a	20	1	0	267	101	-

^aBehaviours that were coded by only one observer.

4.1.1 Interrater reliability. Interrater reliability was assessed by calculating the kappa coefficient using SPSS version 17.0 ($k = .27$). Landis and Koch (1977) have suggested the following as a guideline for the strength of agreement for the kappa coefficient: ≤ 0 = poor, .01-.20 = slight, .21-.40 = fair, .41-.60 = moderate, .61-.80 = substantial and .81-1 = almost perfect. Using this interpretation of the magnitude of kappa, the interrater reliability of this study was fair.

4.1.2 Observed sportspersonship behaviours. The coaches varied in terms of the absolute number of behaviours observed in each dimension. However, certain behaviours were generally observed more frequently than others across all coaches. The most common behaviour in the rules and officials dimension was clapping for a referee's call. Verbal praise directed at a referee was only observed on a few occasions. No behaviours were observed in the opponents dimension. The most common behaviour in the social convention dimension was shaking hands with a referee or opponent. Coaches were also observed passing the ball to the referee or opponent on a couple of occasions. By far the most frequently observed behaviours were coded in the full commitment dimension. Coaches were observed encouraging their own players as well as providing instructions with a motivational component. The most common behaviours observed in the negative approach dimension were coaches displaying frustration towards their own players and disagreeing with the referee.

4.2 Research Question #1: Were the Sportspersonship Orientations of Youth Sport Coaches Consistent with their Actual Behaviours?

The present study was exploratory in nature. A coach-by-coach qualitative analysis was done to compare the data obtained from the coaches' self-reported sportspersonship orientations (MSOS-YSC) with the data obtained from observation. Each MSOS-YSC item was measured on a 5-point Likert scale ranging from 1 (does not correspond to me) to 5 (corresponds to me exactly).

Table 2

Sportspersonship Orientations and Observed Behaviours of (A) Coach 1, (B) Coach 2, (C) Coach 3, (D) Coach 4 and (E) Coach 5

Sportspersonship dimension	MSOS-YSC ^a	Observed behaviours ^b
<i>(A) Coach 1</i>		
1. Rules and officials	5	8.5
2. Opponents	5	0
3. Social conventions	5	6
4. Full commitment	4.75	65
<i>(B) Coach 2</i>		
1. Rules and officials	4.67	2
2. Opponents	4	0
3. Social conventions	5	3.5
4. Full commitment	4.5	51
<i>(C) Coach 3</i>		
1. Rules and officials	4	0
2. Opponents	3	0
3. Social conventions	4.75	3.5
4. Full commitment	4.75	12
<i>(D) Coach 4</i>		
1. Rules and officials	5	7
2. Opponents	4.1	0
3. Social conventions	5	5.5
4. Full commitment	5	97
<i>(E) Coach 5</i>		
1. Rules and officials	4.33	2
2. Opponents	4.2	0
3. Social conventions	5	8
4. Full commitment	4	61.5

^aEach MSOS-YSC item was measured on a 5-point Likert scale ranging from 1 (does not correspond to me) to 5 (corresponds to me exactly). ^bAverage sportspersonship behaviours as observed over two games and agreed on by two observers.

4.2.1 Coach 1. As shown in Table 2 (part A), Coach 1 rated himself as having very high sportspersonship orientations towards respect and concern for the rules and officials, the opponents, social conventions and full commitment toward sport

participation. The positive sportspersonship behaviours observed were consistent with the self-reported orientations for the rules and officials as well as social conventions.

However, positive sportspersonship behaviours were far more frequently observed for the full commitment dimension. Although Coach 1 rated himself as having a very high sportspersonship orientation in regards to respect and concern for the opponents, no positive sportspersonship behaviours were observed in this dimension.

4.2.2 Coach 2. Coach 2 rated himself as having very high sportspersonship orientations towards respect and concern for social conventions and to a slightly lesser degree, the rules and official and full commitment toward sport participation (see Table 2, part B). Few positive sportspersonship behaviours were observed in the rules and officials and the social conventions dimensions. Far more positive sportspersonship behaviours were observed for full commitment than any other sportspersonship dimension. Although Coach 2 rated himself as having a high sportspersonship orientation in regards to respect and concern for the opponents, no positive sportspersonship behaviours were observed.

4.2.3 Coach 3. Coach 3 rated himself as having very high sportspersonship orientations towards respect and concern for social conventions as well as full commitment toward sport participation (see Table 2, part C). Few positive sportspersonship behaviours were observed in the social conventions dimension. However, the observed positive sportspersonship behaviours were consistent with the self-reported orientations for full commitment toward sport participation. Coach 3 rated himself as having a high sportsperonship orientation toward the rules and officials and a

moderate sportspersonship orientation toward the opponents. For both of these dimension, no positive sportspersonship behaviours were observed.

4.2.4 Coach 4. Coach 4 rated himself as having very high sportspersonship orientations towards respect and concern for the rules and officials, social conventions and full commitment toward sport participation (see Table 2, part D). Positive sportspersonship behaviours observed were consistent with the self-reported orientations for the rules and officials as well as social conventions. Observed positive sportspersonship behaviours were far more frequently observed for full commitment. Although Coach 4 rated himself as having a high sportspersonship orientation in regards to respect and concern for the opponents, no positive sportspersonship behaviours were observed.

4.2.5 Coach 5. Coach 5 rated himself as having very high sportspersonship orientations towards respect and concern for social conventions and to a lesser degree the rules and officials (see Table 2, part E). Positive sportspersonship behaviours observed were consistent with the self-reported orientations for social conventions. However, very few behaviours were observed demonstrating respect for the rules and officials. Coach 5 rated himself as having high sportspersonship orientations towards respect and concern for the opponents and full commitment toward sport participation. Observed positive sportspersonship behaviours were far more frequently observed for full commitment. Although Coach 5 rated himself as having a high sportspersonship orientation in regards to respect and concern for the opponents, no positive sportspersonship behaviours were observed.

4.3 Research Question #2: Were Actual Coaching Behaviours Consistent with Athletes' Perceptions of their Coaches' Sportspersonship Behaviours?

A coach-by-coach qualitative analysis was done to compare the data obtained from observation with the data obtained from the athletes' perceptions of their coaches' sportspersonship behaviours (MSOS-PCB). Each MSOS-PCB item was measured on a 5-point Likert scale ranging from 1 (does not correspond to me) to 5 (corresponds to me exactly). Each athlete completed the MSOS-PCB, however to conduct this analysis, team averages were used.

4.3.1 Reliability. Cronbach's alpha values were calculated to determine the internal consistency of each sportspersonship dimension of the MSOS-PCB (see Table 4, part A). Two of the five factors showed acceptable internal reliability, with Cronbach's alpha values greater than Nunnally's (1970) criteria of .70. Cronbach's alpha values for the MSOS-PCB ranged from .35 to .77. Although a few of the dimensions of the MSOS-PCB in this study did not show acceptable consistency values, they were included in the analysis based on previous research supporting their reliability (Vallerand et al., 1997).

Table 3

Observed Sportspersonship Behaviours and Team Averages of Athletes' Perceptions of the Sportspersonship Behaviours of (A) Coach 1, (B) Coach 2, (C) Coach 3, (D) Coach 4 and (E) Coach 5

Sportspersonship dimension	Observed behaviours ^a	MSOS-PCB ^b
<i>(A) Coach 1</i>		
1. Rules and officials	8.5	4.6
2. Opponents	0	3.7
3. Social conventions	6	4.82
4. Full commitment	65	4.73
5. Negative approach	5	2.02
<i>(B) Coach 2</i>		
1. Rules and officials	2	3.6
2. Opponents	0	3.45
3. Social conventions	3.5	4.3
4. Full commitment	51	4.45
5. Negative approach	6	1.82
<i>(C) Coach 3</i>		
1. Rules and officials	0	3.6
2. Opponents	0	3.16
3. Social conventions	3.5	4.36
4. Full commitment	12	4.49
5. Negative approach	20	2.24
<i>(D) Coach 4</i>		
1. Rules and officials	7	4.3
2. Opponents	0	3.56
3. Social conventions	5.5	4.69
4. Full commitment	97	4.75
5. Negative approach	16.5	2.63
<i>(E) Coach 5</i>		
1. Rules and officials	2	4.48
2. Opponents	0	3.55
3. Social conventions	8	4.73
4. Full commitment	61.5	4.9
5. Negative approach	14.5	2.06

^aAverage sportspersonship behaviours as observed over two games and agreed on by two observers. ^bEach MSOS-PCB item was measured on a 5-point Likert scale ranging from 1 (does not correspond to me) to 5 (corresponds to me exactly).

4.3.2 Coach 1. As shown in Table 3 (part A), Team 1 rated their coach as having very high sportspersonship orientations towards respect and concern for the rules and officials, social conventions and full commitment toward sport participation. Positive sportspersonship behaviours observed were consistent with athletes' perceptions for the rules and officials as well as social conventions. Observed positive sportspersonship behaviours were far more frequently observed for full commitment. Team 1 rated their coach as having a high respect and concern for the opponents, however no positive sportspersonship behaviours were observed in this dimension. Team 1 rated their coach as having a low negative approach toward sport participation and this was consistent with the observed behaviours.

4.3.3 Coach 2. Team 2 rated their coach as having very high sportspersonship orientations towards respect and concern for social conventions and full commitment toward sport participation (see Table 3, part B). Few positive sportspersonship behaviours were observed in the social conventions dimension. Observed positive sportspersonship behaviours were far more frequently observed for full commitment. Team 2 rated their coach as having a high respect and concern for the rules and officials, however few positive sportspersonship behaviours were observed in this dimension. Team 2 rated their coach as having a moderate respect and concern for the opponents, however no positive sportspersonship behaviours were observed in this dimension. Team 2 rated their coach as having a low negative approach toward sport participation and this was consistent with the observed behaviours.

4.3.4 Coach 3. Team 3 rated their coach as having very high sportspersonship orientations towards respect and concern for social conventions and full commitment

toward sport participation (see Table 3, part C). Few positive sportspersonship behaviours were observed in the social conventions dimension. The observed positive sportspersonship behaviours for full commitment were consistent with athletes' perceptions. Team 3 rated their coach as having a high respect and concern for the rules and officials, however there were no observed behaviours for respect and concern for the rules and officials. Team 3 rated their coach as having a moderate respect and concern for the opponents, however no positive sportspersonship behaviours were observed in this dimension. Team 3 rated their coach as having a low negative approach toward sport participation, however negative behaviours were the most frequently observed behaviours of Coach 3.

4.3.5 Coach 4. Team 4 rated their coach as having very high sportspersonship orientations towards respect and concern for the rules and officials, social conventions and full commitment toward sport participation (see Table 3, part D). Positive sportspersonship behaviours observed were consistent with the athletes' perceptions of rules and officials and social conventions. Observed positive sportspersonship behaviours were far more frequently observed for full commitment. Team 4 rated their coach as having a high respect and concern for the opponents, however no positive sportspersonship behaviours were observed towards the opponents. Team 4 rated their coach as having a moderate negative approach toward sport participation, however these behaviours were frequently observed.

4.3.6 Coach 5. Team 5 rated their coach as having very high sportspersonship orientations towards respect and concern for the rules and officials, social conventions and full commitment toward sport participation (see Table 3, part E). Few positive

sportspersonship behaviours were observed in the rules and officials dimension. Positive sportspersonship behaviours observed were consistent with the athletes' perceptions of social conventions. Observed positive sportspersonship behaviours were far more frequently observed for full commitment. Team 5 rated their coach as having a high respect and concern for the opponents, however no positive sportspersonship behaviours were observed in this dimension. Team 5 rated their coach as having a low negative approach toward sport participation, however these behaviours were frequently observed.

4.4 Research Question #3: Did Athletes' Perceptions of their Coaches'

Sportspersonship Behaviours Predict the Sportspersonship Orientations of Athletes?

Treatment of missing data. The quantitative data analysis was conducted using the software program SPSS version 17.0. The data was entered and then screened for data entry errors and missing values. There were 45 missing data points. Closer examination of the missing data revealed that question 9 of the MSOS-PCB was missing 8 data points and participant 12 was missing 7 data points. Both of these variables were deleted. Tabachnick and Fidell (2007) suggest that the deletion of a variable with a lot of missing data is acceptable as long as that variable is not critical to the analysis. This resulted in a final sample size of 47 athletes. The remainder of the missing data points were replaced with mean values (Tabachnick & Fidell, 2007).

4.4.1 Assumptions of multivariate analysis. Table 4 shows the means, standard deviations, skewness and kurtosis for the MSOS-PCB factors (part A) and for the MSOS factors (part B). Univariate normality was assessed by verifying the skewness and kurtosis values for each dimension. Most of the values fell within the recommended

guidelines for acceptable normality proposed by Tabachnick and Fidell (2007). Although a couple of cases had moderate abnormality, there were no extreme cases and therefore no transformations were required. Multicollinearity was assessed by verifying the correlations between all of the sportspersonship dimensions of each questionnaire (see Table 5). No multicollinearity was found between factors with correlation coefficients ranging from $r = -.28$ to $r = .71$. (i.e., $r < .90$; Tabachnick & Fidell, 2007). Multivariate normality was assessed by verifying Mahalanobis distance. There were no significant outliers at the $p < .001$ level.

Table 4

Mean, Standard Deviation, Skewness, Kurtosis, and Cronbach's Alpha Values for (A) the MSOS-PCB and (B) the MSOS

Sportspersonship dimension	M	SD	Skew	Kurt	α
<i>(A) MSOS-PCB</i>					
1. Rules and officials	4.15	.64	-.70	-.00	.77
2. Opponents	3.49	.94	-.77	-.39	.57
3. Social conventions	4.60	.53	-1.99	5.33	.74
4. Full commitment	4.68	.43	-1.78	3.27	.65
5. Negative approach	2.15	.66	.41	-.39	.35
<i>(B) MSOS</i>					
1. Rules and officials	4.13	.67	-.87	.95	.76
2. Opponents	2.75	.98	.56	-.35	.73
3. Social conventions	4.42	.53	-1.66	5.15	.54
4. Full commitment	4.49	.46	-.99	1.03	.58
5. Negative approach	2.46	.77	.35	-.25	.52

Note. $n = 47$. Each MSOS-PCB item was measured on a 5-point Likert scale ranging from 1 (does not correspond to me) to 5 (corresponds to me exactly).

Table 5

Intercorrelations between (A) the MSOS-PCB Dimensions and (B) the MSOS Dimensions

Sportspersonship dimension	1	2	3	4	5
<i>(A) MSOS-PCB</i>					
1. Rules and officials	-	.38**	.38**	.49**	-.19
2. Opponents		-	.34*	.52**	-.38**
3. Social conventions			-	.71**	-.04
4. Full commitment				-	-.28
5. Negative approach					-
<i>(B) MSOS</i>					
1. Rules and officials	-	.23	.36*	.41**	-.15
2. Opponents		-	.48**	.33*	.06
3. Social conventions			-	.48**	-.12
4. Full commitment				-	-.08
5. Negative approach					-

Note. $n = 47$.* $p < .05$. ** $p < .01$.

4.4.2 Reliability. Cronbach's alpha values were calculated to determine the internal consistency of each sportspersonship dimension of the MSOS-PCB and the MSOS (see Table 4). Two of the five factors of the MSOS-PCB and the MSOS showed acceptable internal reliability, with Cronbach's alpha values greater than Nunnally's (1970) criteria of .70. Cronbach's alpha values for the MSOS-PCB ranged from .35 to .77 and for the MSOS ranged from .52 to .76. Although a few of the dimensions of the MSOS-PCB and the MSOS in this study did not show acceptable consistency values, they were included in the analysis based on previous research supporting their reliability (Vallerand et al., 1997).

4.4.3 Pearson correlations. Pearson correlations were calculated to examine the relationships between athletes' perceptions of their coaches' sportspersonship behaviours and the sportspersonship orientations of athletes (see Table 6). Athletes'

perceptions of coaches' negative approach toward sport participation were found to be significantly and positively related to athletes' negative approach toward sport participation ($r = .40, p < .01$). All other dimensions of athletes' perceptions of their coaches' sportspersonship behaviours were not significantly related to the sportspersonship orientations of athletes.

Table 6

Pearson Correlations between Athletes' Perceptions of Coaches' Sportspersonship Behaviours and Athletes' Sportspersonship Orientations

	Sportspersonship dimension	Athletes' Perceptions of Coaches' Sportspersonship Behaviours				
		1	2	3	4	5
Athletes' Sportspersonship Orientations	1. Rules and officials	.21	.05	.20	.24	.02
	2. Opponents	.25	.26	.21	.17	.11
	3. Social conventions	.11	-.04	.21	.23	-.04
	4. Full commitment	.09	-.06	.05	.27	.11
	5. Negative approach	.09	.17	-.03	-.28	.40**

Note. $n = 47$.

** $p < .01$.

4.4.4 Regression analyses. A series of multiple regressions were conducted to determine if athletes' perceptions of their coaches' sportspersonship behaviours could predict any of the five sportspersonship orientations of athletes. Only the model for athletes' negative approach toward sport participation was found to be significant [$F(5, 41) = 3.31, p < .05$]. Athletes' perceptions of their coaches' sportspersonship behaviours accounted for 28.7% of the variance ($R^2 = .287$, adjusted $R^2 = .201$). Athletes' perceptions of their coaches' negative approach toward sport participation ($t = 2.46, B = .42, \beta = .36, p < .05$) and athletes' perceptions of their coaches' respect for the rules and

officials ($t = 2.07$, $B = .38$, $\beta = .32$, $p < .05$) were found to be significant predictors of the regression model.

Chapter 5: Discussion

The primary purpose of this study was to examine actual coaching behaviours in terms of sportspersonship using direct systematic observation. Coaches' sportspersonship orientations were compared to their actual behaviours. In turn, actual coaching behaviours were compared to athletes' perceptions of their coaches' behaviours. As well, athletes' perceptions of their coaches' behaviours were compared to athletes' beliefs in terms of sportspersonship. Consistent with the social-psychological approach, sportspersonship orientations were considered separately from the display of sportspersonship behaviours. The orientations concerned the self-perceptions about behaviours and the display referred to actual behaviours (Vallerand & Losier, 1994).

5.1 Observed Sportspersonship Behaviours

The coaches varied in terms of the absolute number of behaviours displayed in each dimension. However, certain behaviours were generally observed more frequently than others across all coaches. The most common behaviour in the rules and officials dimension was clapping for a referee's call. This was the most frequent way that coaches demonstrated their agreement with a referee's decision. Verbal praise directed at a referee was only observed on a few occasions. Interestingly, no behaviours were observed in the opponents dimension. This lack of behaviour suggested that the coaches were not concerned for the opponents. The most common behaviour in the social convention dimension was shaking hands with a referee or opponent. Coaches were also observed passing the ball to the referee or opponent on a couple of occasions. It is important to note that the frequencies of these behaviours were dependent on the opportunities available to the coaches. In other words, the behaviours were dependent on how many

referees and opposing coaches were present at the game as well as how many times the ball went out of bounds in close proximity to the coach. Given more opportunities, the coaches may have displayed more behaviours in this dimension. By far the most frequently observed behaviours were coded in the full commitment dimension. Coaches were observed encouraging their own players as well as providing instructions with a motivational component. These behaviours demonstrated the coaches' commitment to giving maximal effort. The most common behaviours observed in the negative approach dimension were coaches' displaying frustration towards their own players and disagreeing with the referee.

It is important to note that several unique and more complex behaviours were also observed. These behaviours could be coded in one of the five dimensions. For example, Team 5 was playing in a close scoring game and the time was winding down. Team 5 scored a basket but it was not added to the scoreboard. One of the parents started yelling very loudly that the score needed to be changed. Coach 5 put up his hand and nodded his head to indicate to the parent that he would take care of it and that the parent should quiet down. This behaviour was coded as respect and concern for the rules and officials. Issues related to observing coaches' sportspersonship behaviours will be considered further in the discussion.

5.2 Research Question #1

The first research question examined whether or not the sportspersonship orientations of youth sport coaches were related to their actual behaviours. Overall, the self-reported sportspersonship orientations of the coaches were high. The consistency of the coaches' self-reported sportspersonship orientations varied from their actual

behaviours depending on which sportspersonship dimension was examined. The rules and officials dimension as well as the social conventions dimension were consistent. In other words, the magnitudes of the coaches' self-reported sportspersonship orientations fluctuated appropriately with the frequencies of the observed behaviours. Interestingly, the social conventions dimension had the highest overall magnitudes of self-reported sportspersonship orientations even though this dimension did not have the greatest number of observed behaviours. The coaches' self-reported sportspersonship orientations towards the opponents had the lowest magnitudes of any dimension and varied the most, however no behaviours were actually observed in the opponents dimension. The coaches' self-reported sportspersonship orientations towards the full commitment to sport were not always consistent with the coaches' actual behaviours. The full commitment dimension had by far the most behaviours observed. However, the full commitment dimension was not always the highest self-reported dimension. The negative approach toward sport participation was not included in this analysis because the MSOS-YSC does not include the negative approach dimension in the measurement of sportspersonship. However, it was found that coaches displayed more positive sportspersonship behaviours than negative behaviours. Similarly, Arthur-Banning et al. (2009) found that recreational basketball coaches displayed more positive than negative behaviours.

5.3 Research Question #2

The second research question sought to determine whether or not coaches' actual sportspersonship behaviours were related to athletes' perceptions of their coaches' sportspersonship behaviours. The consistency varied depending on which sportspersonship dimension was examined. Again, the rules and officials dimension as

well as the social conventions dimension were quite consistent. In other words, the frequencies of the observed behaviours were in line with the magnitudes of the athletes' perceptions of their coaches' sportspersonship behaviours. Athletes' perceptions of their coaches' sportspersonship behaviours towards the opponents were low in comparison to the other dimensions. However, no behaviours were observed in the opponents dimension. Athletes' perceptions of their coaches' behaviours towards the full commitment to sport were not always consistent with the coaches' actual behaviours. The full commitment dimension had by far the most behaviours observed. However, the athletes did not always report their coaches' full commitment as the highest dimension. Athletes' perceptions of their coaches' negative approach toward sport participation did not seem to reflect their coaches' actual behaviours. Overall, the trends between athletes' perceptions of their coaches' sportspersonship behaviours and the self-reported ratings of the coaches were similar. However, athletes' perceptions of their coaches were consistently lower than the self-reported ratings of the coaches. Similarly, Short and Short (2004) found that athletes' perceptions of their coaches' efficacy were generally lower than the coaches' assessment of their own coaching efficacy.

5.4 Research Question #3

The third research question examined whether or not athletes' perceptions of their coaches' sportspersonship behaviours could predict athletes' sportspersonship orientations. A series of multiple regressions were conducted and the only significant regression model was for athletes' negative approach toward sport participation. Athletes' perceptions of their coaches' sportspersonship behaviours accounted for 28.7% of the variance. Athletes' perceptions of their coaches' negative approach toward sport

participation and athletes' perceptions of their coaches' respect for the rules and officials were found to be significant predictors of the regression model. Research has supported the finding that athletes' perceptions of their coaches' negative approach toward sport participation predicts athletes' negative approach toward sport participation. Shields et al. (2007) found that the self-reported unsportspersonlike behaviours of young athletes were best predicted by perceived poor sportspersonship behaviours of their coach. However, the finding that athletes' perceptions of their coaches' respect for the rules and officials predicts athletes' negative approach toward sport participation was unexpected. Two possible interpretations could be gleaned from this finding. First, athletes may perceive their coaches to respect the rules but not the spirit of the rules. In other words, athletes may perceive their coaches attempting to gain any fair advantage. For example, in younger divisions, zone defence is not permitted. Therefore, a team cannot have a defensive player stand under their basket. Coaches will take advantage of this rule on the offensive end by isolating their best player on one side of the basketball court and letting them go one-on-one. Zone defence is not permitted so the other defensive players cannot help. The offensive team may win, but only one person is getting to play. A second interpretation of this finding could be that athletes perceive their coach to respect the rules and officials regardless of the quality of the officiating. This may increase an athlete's frustration and cause him to participate with a more negative approach.

5.5 Respect for the Opponents

Comparing the coaches' and athletes' self-reported sportspersonship orientations towards the opponents was not proposed as a research question, however it has been included for consideration. Both the coaches and the athletes rated themselves noticeably

lower in the opponents dimension, perceiving themselves to be relatively less respectful of their opponents when compared to the other sportspersonship dimensions. This finding has been noted in previous research examining adolescent handball players. The athletes reported relatively low respect for the opponents (Stornes & Bru, 2002). Furthermore, in the present study, athletes' self-reported sportspersonship orientations towards the opponents were consistently lower than the athletes' perceptions of their coaches' sportspersonship behaviours towards the opponent. No other dimension demonstrated this trend.

5.6 Theoretical Contextualization

The results of the present study provided partial theoretical support for Horn's (2008) model of coaching effectiveness. This study examined coaches' beliefs (box 4), coaches' behaviours (box 5), athletes' perceptions of their coaches' behaviours (box 8) and athletes' self-perceptions and beliefs (box 9) (see Figure 1). Horn's (2008) model of coaching effectiveness proposes a series of direct links suggesting that coaches' beliefs will affect their behaviours, coaches' behaviours will impact athletes' perceptions of their coaches' behaviours and athletes' perceptions of their coaches' behaviours will influence athletes' beliefs. Sportspersonship is a multidimensional construct and several dimensions were found to support the links examined whereas several dimensions did not support the links.

The rules and officials dimension as well as the social conventions dimension provided support for the links between coaches' beliefs and coaches' behaviours as well as coaches' behaviours and athletes' perceptions of their coaches' behaviours (see Figure 2). Also, athletes' perceptions of their coaches' sportspersonship behaviours were found

to predict athletes' negative approach towards sport participation. Therefore, the negative approach dimension provides support for the link between athletes' perceptions of their coaches behaviours and athletes' beliefs (see Figure 2).

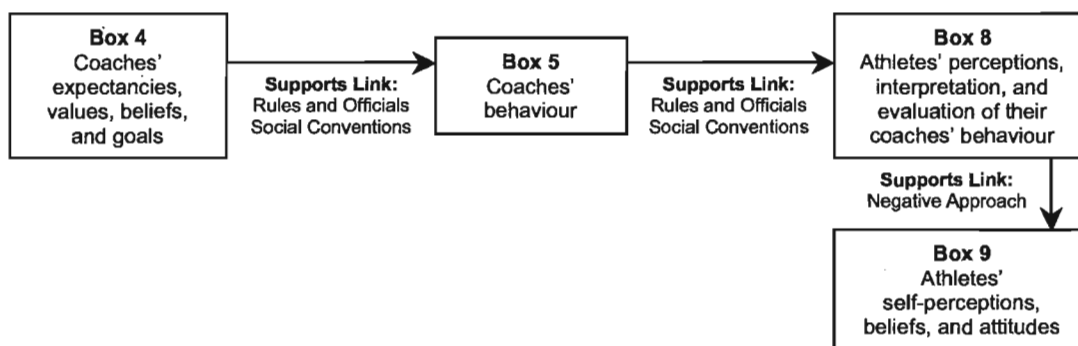


Figure 2. Results that support the links in Horn's (2008) model of coaching effectiveness

The opponents dimension, the full commitment dimension and the negative approach dimension did not provide support for the links between coaches' beliefs and coaches' behaviours as well as coaches' behaviours and athletes' perceptions of their coaches behaviour. Furthermore, athletes' perceptions of their coaches' sportspersonship behaviours did not predict the sportspersonship orientations of athletes towards the rules and officials, the opponents, social conventions or the full commitment toward sport participation. Therefore, these dimensions did not provide support for the link between athletes' perceptions of their coaches behaviours and athletes' beliefs.

5.7 Reliability and Validity Issues

All of the measures used in this study were based on the Multidimensional Sportspersonship Orientations Scale (MSOS; Vallerand et al., 1997). The results of the present study combined with previous research suggest that the MSOS has reliability and

validity issues. Specifically, the criterion validity, the construct validity and the psychometrics of the MSOS were examined.

5.7.1 Criterion Validity. Criterion validity relates to how accurately an instrument predicts a well-known indicator of a given concept (Bryant, 2002). In other words, criterion validity refers to established relationships between variables. By relating the observational data with the questionnaire data, criterion validity was assessed. As previously discussed, only two of the five dimensions supported the links between coaches' beliefs, coaches' behaviours and athletes' perceptions of their coaches' behaviours. The discrepancy between the observational data and the data obtained from the questionnaires can be highlighted when comparing a coach who displayed high sportspersonship with a coach who displayed low sportspersonship. Coach 1 was one of the coaches who displayed the most positive sportspersonship behaviours and also displayed the fewest negative sportspersonship behaviours. However, these findings were not obvious when examining the data obtained from the questionnaires. The athletes' perceptions of their coaches' positive sportspersonship behaviours were not substantially higher than the other teams, nor were the athletes' perceptions of their coaches' negative approach lower than the other teams. Coach 3 displayed the fewest positive sportspersonship behaviours and the most negative sportspersonship behaviours. In fact, Coach 3 displayed more negative sportspersonship behaviours than all of the positive sportspersonship dimensions combined. Again, these findings were not obvious when examining the data obtained from the questionnaires. The athletes' perceptions of their coaches' positive sportspersonship behaviours were not lower than the other team, nor were the athletes' perceptions of their coaches' negative approach higher than the other

teams. When comparing the two coaches, the data obtained from the questionnaires did not capture the coaches' actual behaviours. This provides evidence against the criterion validity of the scale.

Furthermore, the criterion validity of the MSOS was assessed by examining whether or not athletes' perceptions of their coaches' sportspersonship behaviours predicted athletes' sportspersonship orientations. Only the regression model for athletes' negative approach toward sport participation was found to be significant. The lack of significant relationships found in this study provides further evidence against the criterion validity of the MSOS. In addition, previous research has also demonstrated a lack of significant relationships. Gano-Overway, Guivernau, Magyar, Waldron and Ewing (2005) did not find the expected relationship between a performance climate and the sportspersonship orientations of young athletes.

5.7.2 Construct Validity. Construct validity refers to whether a given measure actually assesses the conceptual variable or construct that the measure is intended to characterize (Bryant, 2002). It is necessary to first establish a clear and explicit definition of the underlying construct and specify the necessary components that constitute the construct and what distinguishes it from related but separate constructs. The meaning of the construct must be understood in order to determine whether the construct has been validly measured. Otherwise, there is no clear standard to use in evaluating the measure (Bryant, 2002).

Vallerand et al. (1997) were not explicit about the definition of sportspersonship. Although they suggested that sportspersonship was a multidimensional construct, clear definitions of each dimension were not presented. Vallerand et al. (1997) simply offered

several behaviours that were relevant to each dimension. Knortz (2009) attempted to expand the definitions, however ambiguity still exists. During the present study, the lack of clear and explicit definitions created several issues while observing coaches' sportspersonship behaviours. The observers were forced to interpret the definitions of the dimensions in order to determine where several sportspersonship behaviours should be coded. The results of the present study suggest that coaches' sportspersonship behaviours were not fully captured by the definitions or by the MSOS. For example, coaches were frequently observed directing sportspersonship behaviours towards their own players. However, no items in the MSOS addressed coaches' positive sportspersonship behaviours towards their own players. Other sportspersonship behaviours were also observed that were not addressed in the definitions or in the MSOS. For example, coaches' were observed retrieving and passing the ball to the referee or the opponent. This behaviour could be an important social convention that is not captured. In addition, behaviours coded in the full commitment dimension were far more frequently observed. In other words, there were exaggerated scores in the full commitment dimension. On the other hand, few behaviours were observed in the social conventions dimension and no behaviours were observed in the opponents dimension.

As previously discussed, construct validity is concerned with whether a given measure actually assesses the construct that it is intended to characterize (Bryant, 2002). The multidimensional definition of sportspersonship needs to be more explicit. Furthermore, the present study found that some of the observed behaviours differed from the MSOS. Therefore, it is possible that the MSOS does not capture the true meaning of the construct of sportspersonship and lacks construct validity.

5.7.3 Psychometrics. Psychometrics is a research area that deals with assessing and establishing the validity and reliability of measurement instruments (Bryant, 2002). The interrater reliability, Cronbach's alpha values and factor structure of the MSOS were examined.

5.7.3.1 Interrater reliability. Interrater reliability refers to the degree to which different observers can achieve the same scores while observing the same participants (Thomas and Nelson, 1996). Based on Landis and Koch's (1977) guidelines for the strength of agreement for the kappa coefficient, interrater reliability for the present study was deemed fair ($k = .27$). Numerous factors influenced the interrater reliability including observer training, inadequate definitions, observer positioning and inherent subjectivity.

Training was insufficient and needed to be context specific. Observers were trained using video clips of one basketball coach during several games. However, observations for the study were completed during live basketball games. Therefore, when coding live behaviours, observers were not able to pause and review the behaviour before coding it on the observation form. Also, when the study began and more coaches were observed, it was evident that coaches displayed slightly different versions of a similar behaviour. The subtleties in coach behaviour caused some confusion over the definitions of the sportspersonship dimension. For example, if a coach clapped immediately after a referee blew a whistle, it was to be coded as clapping for a referee's call (rules and officials). However, one of the coaches would clap immediately after a referee blew a whistle and say "good job". This behaviour should be coded as encouraging one's own player (full commitment). This caused some discrepancies, however, the observers discussed the issue after the game and it was resolved. The positioning of the observers in

the gymnasiums was also a factor affecting the interrater reliability. When observations began, the observers sat across from the coach, at opposite ends of the gymnasium. Originally, this was deemed appropriate so that the observers did not influence each other as they coded the behaviours. However, it was found that the observer sitting at a greater distance from the coach could not always hear what the coach was saying and was unable to code those behaviours. Therefore, the strategy was changed and the observers began sitting in the same half of the gymnasium. However, the ability to hear what the coach was saying remained a problem due to the gymnasium size as well as the spectator noise (i.e., enthusiastic parents). It is suggested that future studies utilize microphones and video cameras.

Finally, interrater reliability could have been affected by the subjectivity of the construct of sportspersonship. Two observers can interpret the same behaviour in two different ways. For example, in the first game that Coach 3 was observed, Observer 1 coded five behaviours in the negative approach whereas Observer 2 coded the same five behaviours in the full commitment dimension. The behaviour was interpreted by one observer as negative and by another observer as positive.

5.7.3.2 Cronbach's *alpha*. Cronbach's alpha values were calculated for the MSOS-PCB and the MSOS to determine the internal consistency of the questionnaires. Cronbach's alpha values for the MSOS-PCB ranged from .35 to .77 and for the MSOS ranged from .52 to .76 (see Table 4). Three of the five factors of the MSOS-PCB and the MSOS did not show acceptable internal reliability. Except for the negative approach dimension, the Cronbach's alpha values found in the present study were lower than what has been found in previous research (Lemyre et al., 2002; Miller et al., 2004). It is

possible that the age of the athletes in this study affected the internal consistency of the questionnaires. The MSOS was originally validated for athletes aged 10 to 18. Although the athletes in the present study were within that age range, it seemed that the younger athletes had difficulties understanding some of the items. During data collection, numerous athletes asked the primary investigator to explain certain words or items. Furthermore, item 9 of the MSOS-PCB was deleted from the analysis due to the number of athletes that did not respond. It may be that the reading comprehension of the younger athletes played a part in the low reliability. Other than the original validation study, the youngest participants used in research examining sportspersonship have been 12 years old (Miller et al., 2004; Ommundsen et al., 2003).

The negative approach subscale has not shown adequate reliability since its development (Kenworthy & Sullivan, 2009; Lemyre et al., 2002; Ryska, 2003; Vallerand et al., 1997). Due to the inadequate reliability, researchers have removed the negative approach dimension from the questionnaire (Miller et al., 2004) or from the analysis (Lemyre et al., 2002; Ryska, 2003). However, removing the negative approach from the measurement of sportspersonship does not accurately capture the construct. A coach who displays a high frequency of positive behaviours will not necessarily display a low frequency of negative behaviours. It is clear that changes need to be made to the negative approach dimension.

5.7.3.3 Factor structure. The factor structure of the MSOS was not examined in the present study. However, previous research that has conducted confirmatory factor analysis has found diverse results. Confirmatory factor analysis assesses how thoroughly a test taps each of the content areas that it is supposed to include (Bryant, 2000). In the

original validation study, Vallerand et al. (1997) conducted a factor analysis that revealed five factors. However, other studies have found sportspersonship to be a four-factor model (Chantal, Robin, Vernat, & Bernach-Assollant, 2005; Dunn & Causgrove Dunn, 1999; Kenworthy & Sullivan, 2009), a three-factor model (Ommundsen et al., 2003) and even a two-factor model (Gano-Overway et al., 2005).

Despite the initial validation of the MSOS, evidence is increasingly emerging that suggests that the MSOS is not a valid or reliable scale. It is clear that further research is needed.

5.8 Limitations

The present study had several limitations that need to be acknowledged. As previously discussed, the reliability and validity of the measurements were low. Therefore, the results need to be interpreted with caution. Another limitation relates to the self-reported questionnaires. Social desirability has been shown to influence the way individuals respond to items addressing moral variables (Sage, Kavussanu, & Duda, 2006). Individuals tend to portray themselves in a more favourable manner. In this study, there was no measure of social desirability, however, confidentiality was assured which can help to diminish the impact of social desirability (Sage et al., 2006). An additional limitation relates to the fact that only the head coaches' sportspersonship behaviours were taken into consideration. The teams that participated in this study had anywhere from 1 to 4 coaches. The behaviours of the assistant coaches were not taken into account and in some cases their behaviours were quite different from the head coach. A final limitation relates to the presence of the two observers at the basketball games. It is possible that the coaches altered their behaviours as a result of being observed.

5.9 Implications for Coach Education

Keeping the limitations of the present study in mind, the results showed that athletes' perceptions of their coaches' negative sportspersonship behaviours predicted athletes' negative sportspersonship orientations. Although coaches were found to display more positive behaviours than negative behaviours, it may be that young athletes remember and are influenced by negative coach behaviours. The observations conducted in the present study found that coaches continue to display negative behaviours in the youth sport environment. Therefore, coach education needs to focus on eliminating coaches' negative sportspersonship behaviours.

5.10 Future Directions

This was the first study to observe coaches' sportspersonship behaviours using the Vallerand et al. (1997) multidimensional definition of sportspersonship. As previously discussed, it is necessary to further develop clear and explicit definitions of each dimension in order to design valid and reliable measures of sportspersonship. In addition, several authors have suggested that the MSOS is biased in its approach and investigates overly positive constructs (McCutcheon, 1999; Shields & Bredemeier, 1995). A more balanced approach is needed that examines both the positive and negative aspects of each dimension. This would allow for a more accurate account of sportspersonship behaviours. For example, Coach 3, Coach 4 and Coach 5 had similar frequencies of negative behaviour even though the behaviours were qualitatively different. Coach 3 was very negative toward his own players whereas Coach 4 and Coach 5 directed their negative behaviours towards both their own players as well as the referee. However, the differences were not accounted for because all of the negative behaviours were combined

into one dimension in order to relate the observational data with the data obtained from the questionnaires. It is evident that more work is needed to examine the intricacies of negative coach behaviours and how these behaviours influence young athletes.

Future research should replicate the present study using different samples (e.g., females, different age groups, different sports). In addition, research should examine athletes' perceptions of their coaches' sportspersonship behaviours and whether or not they predict other athlete outcomes such as athlete enjoyment, attrition rate and athlete performance. Research should also investigate whether or not the coach-athlete relationship mediates the influence of a coach's sportspersonship behaviours. The present study also highlighted the need to further examine the opponents dimension and why coaches and athletes have a relatively lower respect and concern for their opponents.

Using a qualitative research approach would be valuable in order to gain a deeper understanding of the intent behind coach behaviours. For example, shaking hands with a referee or opponent is categorized in the social conventions dimension. However, it is possible that coaches perceive this behaviour to be expected and is therefore meaningless to coaches and unrelated to sportspersonship. Furthermore, interviewing athletes about their coaches' behaviours could provide some much needed insight into the athlete's experience.

References

- Allen, J. B., & Howe, B. (1998). Player ability, coach feedback, and female adolescent athletes' perceived competence and satisfaction. *Journal of Sport and Exercise Psychology, 20*, 280-299.
- Ames, C. (1992). Achievement goals, motivational climate, and motivational processes. In G. C. Roberts (Ed.), *Motivation in sport and exercise* (pp.161-176). Champaign, IL: Human Kinetics.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology, 80*, 260-267.
- Arthur-Banning, S., Paisley, K., & Wells, M. S. (2007). Promoting sportsmanship in youth basketball players: The effects of referees' prosocial behavior techniques. *Journal of Parks and Recreation Administration, 25*, 96-114.
- Arthur-Banning, S., Wells, M. S., Baker, B. L., & Hegreness, R. (2009). Parents behaving badly? The relationship between the sportsmanship behaviors of adults and athletes in youth basketball games. *Journal of Sport Behavior, 32*, 3-18.
- Bloom, G. A., Durand-Bush, N., & Salmela, J. (1997). Pre- and post-competition routines of expert coaches of team sport. *The Sport Psychologist, 11*, 127-141.
- Brennan, P., & Silman, A. (1992). Statistical methods for assessing observer variability in clinical measures. *British Medical Journal, 304*, 1491-1494.
- Brustad, R. J. (1993). Youth in sport: Psychological considerations. In R. N. Singer, M. Murphey, & L. K. Tennant (Eds.), *Handbook of research in sport psychology* (pp.695-718). New York: Macmillan.

- Bryant, F. B. (2000). Assessing the validity of measurement. In L. G. Grimm, & P. R. Yarnold (Eds.), *Reading and understanding more multivariate statistics* (p. 99-146). Washinton, DC: American Psychological Association.
- Boixados, M., Cruz, J., Torregrosa, M., & Valiente, L. (2004). Relationships among motivational climate, satisfaction, perceived ability, and fair play attitudes in young soccer players. *Journal of Applied Sport Psychology*, 16, 301-317.
- Chantal, Y., Robin, P., Vernat, J. P., & Bernach-Assollant, I. (2005). Motivation, sportspersonship, and athletic aggression: A meditational analysis. *Psychology of Sport and Exercise*, 6, 233-249.
- Chelladurai, P. (2007). Leadership in sports. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed.) (pp. 113-135). Morantown, WV: Fitness Information Technology.
- Chelladurai, P. (1990). Leadership in sports: A review. *International Journal of Sport Psychology*, 21, 328-354.
- Chelladurai, P., & Saleh, S. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of Sport Psychology*, 2, 34-45.
- Clark, W. (2008). Kids' sports. *Canadian Social Trends: Statistics Canada*, 11, 54-61.
- Conroy, D. E., Silva, J. M., Newcomer, R. R., Walker, B. W., & Johnson, M. S. (2001). Personal and participatory socializers of the perceived legitimacy of aggressive sport behavior. *Aggressive Behavior*, 27, 405-418.
- Côté, J., & Salmela, J. (1996). The organizational tasks of high-performance gymnastic coaches. *The Sport Psychologist*, 9, 76-95.

- Côté, J., Trudel, P., Bernard, D., Boileau, R., & Marcotte, G. (1993). Observation of coach behaviors during different game score differentials. *Safety in Ice Hockey: Second Volume*. C. R. Castaldi, P. J. Bishop, & E. F. Hoerner (Eds.). Philadelphia: American Society for Testing and Materials, pp.78-87.
- Duda, J. L., & Nicholls, J. G. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology*, 84, 290-299.
- Dunn, J. G. H., & Causgrove Dunn, J. (1999). Goal orientations, perceptions of aggression, and sportspersonship in elite male youth ice hockey players. *The Sport Psychologist*, 13, 183-200.
- Feltz, D. L., Chase, M. A., Moritz, S. E., & Sullivan, P. J. (1999) A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of Educational Psychology*, 91, 765-776.
- Gano-Overway, L. A., Guivernau, M., Magyar, T. M., Waldron, J. J., & Ewing, M. E. (2005). Achievement goal perspectives, perceptions of the motivational climate and sportspersonship: Individual and team effects. *Psychology of Sport and Exercise*, 6, 215-232.
- Gould, D., Collins, K., Lauer, L., & Chung, Y. (2007). Coaching life skills through football: A study of award winning high school coaches. *Journal of Applied Sport Psychology*, 19, 16-37.
- Guivernau, M., & Duda, J. L. (2002). Moral atmosphere and athletic aggressive tendencies in young soccer players. *Journal of Moral Education*, 31, 67-85.
- Hellison, D. (2003). *Teaching responsibility through physical activity* (2nd ed.). Champaign, IL: Human Kinetics.

- Hollembeak, J., & Amorose, A. J. (2005). Perceived coaching behaviors and college athletes' intrinsic motivation: A test of self-determination theory. *Journal of Applied Sport Psychology, 17*, 20-36.
- Horn, T. S. (2008). Coaching effectiveness in the sport domain. In T.S. Horn (Ed.), *Advances in sport psychology* (3rd ed.) (pp. 239-267). Champaign, IL: Human Kinetics.
- Horn, T. S. (1992). Leadership effectiveness in the sport domain. In T.S. Horn (Ed.), *Advances in sport psychology*, (pp. 181-200). Champaign IL: Human Kinetics.
- Horn, T. S. (1985). Coaches' feedback and changes in children's perceptions of their physical competence. *Journal of Educational Psychology, 77*, 174-186.
- Joyner, K., & Mummery, K. (2005). Influences on sportspersonship orientations: Contextual and motivational. *Youth Studies Australia, 24*, 48-53.
- Kavussanu, M., Seal, A. R., & Phillips, D. R. (2006). Observed prosocial and antisocial behaviors in male soccer teams: age differences across adolescence and the role of motivational variables. *Journal of Applied Sport Psychology, 18*, 326-344.
- Kavussanu, M., & Spray, C. M. (2006). Contextual influences on moral functioning of male youth footballers. *The Sport Psychologist, 20*, 1-23.
- Kenworthy, L. C., & Sullivan, P. J. (2009, November). *Development and validation of the multidimensional sportspersonship orientations scale for youth sport coaches*. Presented at the annual meeting of the Canadian Society for Psychomotor Learning and Sport Psychology, Toronto, ON.

Knortz, G. S. (2009). *A case study: Assessing the validity and reliability of the multidimensional sportspersonship orientation scale among college athletes.*

Retrieved from DSpace at University of Vermont Libraries.

Lacy, A. C., & Darst, P. W. (1985). Systematic observation of behaviors of winning high school head football coaches, *Journal of Teaching in Physical Education*, 4, 256-270.

Lacy, A. C., & Goldston, P. D. (1990). Behavior analysis of male and female coaches in high school girls' basketball. *Journal of Sport Behavior*. 13, 29-39.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 159-174.

Lemyre, P. N., Roberts, G. C., & Ommundsen, Y. (2002). Achievement goal orientations, perceived ability, and sportspersonship in youth soccer. *Journal of Applied Sport Psychology*, 14, 120-136.

Lerner, R. M., Dowling, E. M., & Anderson, P. M. (2003). Positive youth development: Thriving as a basis of personhood and civil society. *Applied Developmental Science*, 7, 172-180.

Lerner, R. M., & Steinberg, L. (Eds.). (2004). *Handbook of adolescent psychology* (2nd ed.). Hoboken, NJ: John Wiley & Sons Inc.

McCutcheon, L. E. (1999). The multidimensional sportspersonship orientations scale has psychometric problems. *Journal of Social Behavior and Personality*, 14, 439-444.

- Miller, B. W., Roberts, G. C., & Ommundsen, Y. (2004) Effect of motivational climate on sportspersonship among competitive youth male and female football players. *Scandinavian Journal of Medicine and Science in Sports*, 14, 193-202.
- Newton, M. L., Duda, J. L., & Yin, Z. (2000). Examination of the psychometric properties of the Perceived Motivational Climate in Sport Questionnaire-2 in a sample of female athletes. *Journal of Sport Sciences*, 18, 275-290.
- Nicholls, G. J. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Nunnally, J. C. (1970). *Introduction to psychological measurement*. New York: McGraw-Hill.
- Ommundsen, Y., Roberts, G. C., Lemyre, P. N., & Treasure, D. (2003). Perceived motivational climate in male youth soccer: Relations to social-moral functioning, sportspersonship and team norm perceptions. *Psychology of Sport and Exercise*, 4, 397-413.
- Price, M. S., & Weiss, M. R. (2000). Relationships among coach burnout, coach behaviors, and athletes' psychological responses. *The Sport Psychologist*, 14, 391-409.
- Ryska, T. A. (2003). Sportsmanship in young athletes: The roles of competitiveness, motivational orientation, and perceived purposes of sport. *Journal of Psychology*, 137, 273-293.
- Shields, D. L., & Bredemeier, B. J. (1995). *Character development and physical activity*. Champaign, IL: Human Kinetics.

- Shields, D. L., Bredemeier, B. J., LaVoi, M., & Power, F. C. (2005). The sport behavior of youth, parents and coaches: The good, the bad and the ugly. *Journal of Research in Character Education*, 3, 43-59.
- Shields, D. L., LaVoi, M., Bredemeier, B. J., & Power, F. C. (2007). Predictors of poor sportspersonship in youth sports: Personal attitudes and social influences. *Journal of Sport and Exercise Psychology*, 29, 747-762.
- Shields, D. L., & Bredemeier, B. J. (2001). Moral development and behavior in sport. In R.N. Singer, H.A. Hausenblas, & C.M. Janelle (Eds.), *Handbook of sport psychology* (2nd ed.) (pp. 585–603). New York: John Wiley & Sons.
- Short, S. E., & Short, M. W. (2004) Coaches' assessment of their coaching efficacy compared to athletes' perceptions. *Perceptual and Motor Skills*, 99, 729-736.
- Smith, R. E., & Smoll, F. L. (2007). Social-cognitive approach to coaching behaviors. In S. Jowett & D. Lavallee (Eds.), *Social psychology in sport* (pp. 75-90). Champaign, IL: Human Kinetics.
- Smith, R. E., & Smoll, F. L. (1990). Self-esteem and children's reactions to youth sport coaching behaviors: A field study of self-enhancement processes. *Developmental Psychology*, 26, 987-993.
- Smith, R. E., Smoll, F. L., & Barnett, N. P. (1995). Reduction of children's sport performance anxiety through social support and stress-reduction training for coaches. *Journal of Applied Developmental Psychology*, 16, 125-142.
- Smith, R. E., Smoll, F. L., & Curtis, B. (1979). Coach Effectiveness Training: A cognitive-behavioral approach to enhancing relationship skills in youth sport coaches. *Journal of Sport Psychology*, 1, 59-75.

- Smith, R. E., Smoll, F. L., & Curtis, B. (1978). Coaching behaviors in Little League baseball. In F.L. Smoll & R.E. Smith (Eds.), *Psychological perspectives in youth sports* (pp. 173-201). Washington, DC: Hemisphere.
- Smith, R., Smoll, F., & Hunt, E. (1977). A system for the behavioral assessment of athletic coaches. *Research Quarterly*, 48, 401-407.
- Smith, R., Zane, N., Smoll, F., & Coppel, D. (1983). Behavioral assessment in youth sports: Coaching behaviors and children's attitudes. *Medicine and Science in Sports and Exercise*, 15, 208-214.
- Smoll, F. L., & Smith R. E. (2002). Coaching behavior research and intervention in youth sport. In F. L. Smoll & R. E. Smith (Eds.), *Children and youth in sport: A biopsychosocial perspective* (2nd ed.) (pp. 211-234). Iowa: Kendall/Hunt Publishing Company.
- Smoll, F. L., Smith, R. E., Barnett, N. P., & Everett, J. J. (1993). Enhancement of children's self-esteem through social support training for youth sport coaches. *Journal of Applied Psychology*, 78, 602-610.
- Stephens, D. E. (2001). Predictors of aggressive tendencies in girls' basketball: An examination of beginning and advanced participants in a summer skills camp. *Research Quarterly for Exercise and Sport*, 72, 257-266.
- Stephens, D. E., & Bredemeier, B. J. (1996). Moral atmosphere and judgments about aggression in girls' soccer: Relationship among moral and motivational variables. *Journal of Sport and Exercise Psychology*, 18, 158-173.

- Stornes, T., & Bru, E. (2002). Sportspersonship and perceptions of leadership: An investigation of adolescent handball players' perceptions of sportspersonship and associations with perceived leadership. *European Journal of Sport Science*, 2, 1-15.
- Stuart, M. E., & Ebbeck, V. (1995). The influence of perceived social approval on moral development in youth sport. *Pediatric Exercise Science*, 7, 270-280.
- Sullivan, P. J., & Kent, A. (2003). Coaching efficacy as a predictor of leadership style in intercollegiate athletics. *Journal of Applied Sport Psychology*, 15, 1- 11.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th Ed). Toronto, ON: Pearson.
- Tharp, R. G., & Gallimore, R. (1976). What a coach can teach a teacher. *Psychology Today*, 9, 75-78.
- Thomas, J. R., & Nelson, J. K. (1996). *Research methods in physical activity* (3rd Ed.). Champaign, IL: Human Kinetics.
- Trudel, P., & Gilbert, W. D. (2006). Coaching and coach education. In D. Kirk, M. O'Sullivan, & D. McDonald (Eds.), *Handbook of physical education*. London: Sage.
- Trudel, P., Guertin, D., Bernard, D., Boileau, R., & Marcotte, G. (1991). Analyse des comportements de l'entraîneur par rapport à la violence au hockey mineur. *Canadian Journal of Sport Sciences*, 16, 103-109.
- Vallerand, R. J., Brière, N. M., Blanchard, C., & Provencher, P. (1997). Development and validation of the multidimensional sportspersonship orientations scale. *Journal of Sport and Exercise Psychology*, 19, 197-206.

Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Brière, N. M., & Pelletier, L. G. (1996).

Toward a multidimensional definition of sportsmanship. *Journal of Applied Sport Psychology*, 8, 89-101.

Vallerand, R. J., & Losier, G. F. (1994). Self-determined motivation and sportsmanship orientations: an assessment of their temporal relationship. *Journal of Sport and Exercise Psychology*, 16, 229-245.

Walling, M. D., Duda, J. L., & Chi, L. (1993). The Perceived Motivational Climate in Sport Questionnaire: Construct and predictive validity. *Journal of Sport and Exercise Psychology*, 15, 172-183.

Appendix A: Ethics Approval

DATE: 12/7/2009

FROM: Michelle McGinn, Chair
Research Ethics Board (REB)

TO: Philip Sullivan, Physical Education and Kinesiology
Laurissa Kenworthy

FILE: 09-084 SULLIVAN
Masters Thesis/Project

TITLE: Coaches' Behaviours and their Impact on Young Athletes

The Brock University Research Ethics Board has reviewed the above research proposal.

DECISION: Accepted as clarified

This project has received ethics clearance for the period of December 7, 2009 to April 30, 2010 subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The clearance period may be extended upon request. ***The study may now proceed.***

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and cleared by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written clearance from the REB. The Board must provide clearance for any modifications before they can be implemented. If you wish to modify your research project, please refer to <http://www.brocku.ca/research/policies-and-forms/forms> to complete the appropriate form Revision or Modification to an Ongoing Application.

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form *Continuing Review/Final Report* is required.

Please quote your REB file number on all future correspondence.

Research Ethics Office Brock University | Brock Research 500 Glenridge Avenue |
St. Catharines, ON L2S 3A1 www.brocku.ca | 905.688.5550 x 3035

Appendix B: Letter of Invitation (Email) - Coaches

Subject: Brock University - Study on Coaches' Behaviours and their Impact on Young Athletes

Hello [President of Basketball Organization],

My name is Laurissa Kenworthy. I am a graduate student at Brock University working under the supervision of Dr. Philip Sullivan in the Department of Physical Education and Kinesiology. I am conducting a study on coaches' behaviours and their impact on young athletes. This study is being conducted for my Masters thesis.

Specifically, I am looking for competitive male youth basketball coaches and their athletes. Coaches and athletes in the major atom and bantam divisions (athletes aged 10 to 13 years old) are eligible to participate in this study.

This study includes observation of coaching behaviours as well as questionnaires to be completed by the coach and the athletes. Coaching behaviour will be observed during two games. Approximately one week later, I will attend a team practice and have the coach and athletes complete the questionnaires. Coaches will be asked to complete a demographics questionnaire and a survey about their coaching behaviours. Athletes will be asked to complete a demographics questionnaire, a survey on the perceived behaviours of their coach and a survey on their own behaviours in sport. The questionnaires should take about 10 to 15 minutes to complete.

All information will be kept strictly confidential and names will not be included or associated with the data. Data collected during this study will be stored in a secure location on Brock University campus. Data will be kept for 3 years after which time the observation forms and surveys will be shredded. Access to this data will be restricted to the investigators.

Participation in this study is voluntary. Participants may decide to withdraw from this study at any time and may do so without any penalty or loss of benefits to which they are entitled. Results of this study may be published in professional journals and presented at conferences. Report on the findings will be available September 2010 in the James A. Gibson Library at Brock University or by request.

This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File #09-084). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

Would you be able to help me contact your coaches? The best way to do this would be to pass on (i.e., through email) an invitation for coaches to participate. Below is the email that can be forwarded to eligible coaches.

If you have any questions about this study or require further information, please feel free to contact me at Laurissa.kenworthy@brocku.ca.

Thank you for your assistance in this project.

Laurissa Kenworthy
Graduate Student
Department of Physical Education and Kinesiology
Brock University
Laurissa.kenworthy@brocku.ca

Philip Sullivan
Associate Professor
Department of Physical Education and Kinesiology
Brock University
905 688 5550 extension 4787
Phil.sullivan@brocku.ca

Here is the email to be forwarded to the coaches:

Hello Coach,

My name is Laurissa Kenworthy. I am a graduate student at Brock University working under the supervision of Dr. Philip Sullivan in the Department of Physical Education and Kinesiology. I am conducting a study on coaches' behaviours and their impact on young athletes. This study is being conducted for my Masters thesis.

Specifically, I am looking for competitive male youth basketball coaches and their athletes. Coaches and athletes in the major atom and bantam divisions (athletes aged 10 to 13 years old) are eligible to participate in this study.

This study includes observation of coaching behaviours as well as questionnaires to be completed by the coach and the athletes. Coaching behaviour will be observed during two games. Approximately one week later, I will attend a team practice and have the coach and athletes complete the questionnaires. Coaches will be asked to complete a demographics questionnaire and a survey about their coaching behaviours. Athletes will be asked to complete a demographics questionnaire, a survey on the perceived behaviours of their coach and a survey on their own behaviours in sport. The questionnaires should take about 10 to 15 minutes to complete.

All information will be kept strictly confidential and names will not be included or associated with the data. Data collected during this study will be stored in a secure location on Brock University campus. Data will be kept for 3 years after which time the observation forms and surveys will be shredded. Access to this data will be restricted to the investigators.

Participation in this study is voluntary. Participants may decide to withdraw from this study at any time and may do so without any penalty or loss of benefits to which they are entitled. Results of this study may be published in professional journals and presented at conferences. Report on the findings will be available September 2010 in the James A. Gibson Library at Brock University or by request.

This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File #09-084). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

If you are interested in participating please contact me at Laurissa.kenworthy@brocku.ca and I can provide you with further information and consent forms, also feel free to e-mail me if you have any further questions.

Thank you for your assistance in this project.

Laurissa Kenworthy
Graduate Student
Department of Physical Education and Kinesiology
Brock University
Laurissa.kenworthy@brocku.ca

Philip Sullivan
Associate Professor
Department of Physical Education and Kinesiology
Brock University
905 688 5550 extension 4787
Phil.sullivan@brocku.ca

Appendix C: Letter of Invitation - Parent(s)/Guardian(s)

Letter of Invitation – Parent(s)/Guardian(s)

Title of Study: Coaches' behaviours and their Impact on Young Athletes

Student Principal Investigator:

Laurissa Kenworthy
Graduate Student
Department of Physical Education and
Kinesiology
Brock University
Laurissa.kenworthy@brocku.ca

Faculty Supervisor:

Philip Sullivan
Associate Professor
Department of Physical Education and
Kinesiology
Brock University
905 688 5550 extension 4787
Phil.sullivan@brocku.ca

Date: January 2010

Dear Parent(s)/Guardian(s),

Your child is invited to participate in a study that is going to examine coaches' behaviours and their impact on young athletes. My name is Laurissa Kenworthy. I am a graduate student at Brock University working under the supervision of Dr. Philip Sullivan in the Department of Physical Education and Kinesiology. This study is being conducted for my Masters thesis.

As a participant, your child will be asked to complete a demographics questionnaire, a survey on the perceived behaviours of their coach and a survey on their own behaviours in sport. The questionnaires will take approximately 10 to 15 minutes of their time.

All information that your child provides is considered confidential; their name will not be included or, in any other way, associated with the data collected in the study. Data collected during this study will be stored in a secure location on Brock University campus. Data will be kept for 3 years after which time the surveys will be shredded. Access to this data will be restricted to the investigators.

Your child's participation in this study is voluntary. You may decide to withdraw your child from this study at any point while they are completing the questionnaires and may do so without any penalty or loss of benefits to which your child is entitled. It is not possible to withdraw data once responses have been submitted as there is no way of linking responses to individual participants. Results of this study may be published in professional journals and presented at conferences. Report on the findings will be available September 2010 in the James A. Gibson Library at Brock University or by request.

This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File #09-084). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

If you have any questions about this study or require further information, please feel free to contact me at Laurissa.kenworthy@brocku.ca.

Sincerely,

Laurissa Kenworthy (Laurissa.kenworthy@brocku.ca)
Dr. Philip Sullivan (Phil.sullivan@brocku.ca)

Appendix D: Coach Informed Consent

Coach Informed Consent

Date: January 2010

Project Title: Coaches' Behaviours and their Impact on Young Athletes

Student Principal Investigator:

Laurissa Kenworthy

Graduate Student

Department of Physical Education and Kinesiology

Brock University

Laurissa.kenworthy@brocku.ca

Faculty Supervisor:

Philip Sullivan

Associate Professor

Department of Physical Education and Kinesiology

Brock University

905 688 5550 extension 4787

Phil.sullivan@brocku.ca

INVITATION

You are invited to participate in a study that involves research. The purpose of this study is to examine coaching behaviour and its impact on young athletes.

WHAT'S INVOLVED

As a participant, you will be observed during 2 games. Approximately one week after the second observation, you will be asked to complete a demographics questionnaire and a survey on your coaching behaviours. The questionnaires will take approximately 5 to 10 minutes of your time.

POTENTIAL BENEFITS AND RISKS

Possible benefits of participation include having a better appreciation of your own coaching behaviours. There are no known risks associated with participation in this study.

CONFIDENTIALITY

All information you provide is considered confidential; your name will not be included or, in any other way, associated with the data collected in the study. Data collected during this study will be stored in a secure location on Brock University campus. Data will be kept for 3 years after which time the observation forms and surveys will be shredded. Access to this data will be restricted to the investigators.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you wish, you may decline to answer any questions or participate in any component of the study. Further, you may decide to withdraw from this study at any point while you are being observed or while you are completing the questionnaires and may do so without any penalty or loss of benefits to which they are entitled. It is not possible to withdraw data once responses have been submitted as there is no way of linking responses to individual participants. Results of this study may be published in professional journals and presented at conferences. Report on the findings will be available September 2010 in the James A. Gibson Library at Brock University or by request.

PUBLICATION OF RESULTS

Results of this study may be published in professional journals and presented at conferences. Feedback about this study will be available through the Student Principal Investigator or the Faculty Supervisor at the phone number and email addresses given above. The results will be available by September 2010.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact the Student Principal Investigator or the Faculty Supervisor using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File #09-084). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

Thank you for your assistance in this project.

CONSENT FORM

I agree to participate in the study described above. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may withdraw this consent at any time.

Name: _____

Signature: _____ Date: _____

Appendix E: Parent/Guardian Informed Consent for Athlete

Parent/Guardian Informed Consent for Athlete

Date: January 2010

Project Title: Coaches' Behaviours and their Impact on Young Athletes

Student Principal Investigator:

Laurissa Kenworthy

Graduate Student

Department of Physical Education and Kinesiology

Brock University

Laurissa.kenworthy@brocku.ca

Faculty Supervisor:

Philip Sullivan

Associate Professor

Department of Physical Education and Kinesiology

Brock University

905 688 5550 extension 4787

Phil.sullivan@brocku.ca

INVITATION

Your child is invited to participate in a study that involves research. The purpose of this study is to examine coaching behaviour and its impact on young athletes.

WHAT'S INVOLVED

As a participant, your child will be asked to complete a demographics questionnaire, a survey on the perceived behaviours of their coach and a survey on their own behaviours in sport. The questionnaires will take approximately 10 to 15 minutes of their time.

POTENTIAL BENEFITS AND RISKS

Possible benefits of participation to your child include having a better appreciation of their own behaviours in sport. There are no known risks associated with participation in this study.

CONFIDENTIALITY

All information that your child provides is considered confidential; their name will not be included or, in any other way, associated with the data collected in the study. Data collected during this study will be stored in a secure location on Brock University campus. Data will be kept for 3 years after which time the surveys will be shredded. Access to this data will be restricted to the investigators.

VOLUNTARY PARTICIPATION

Your child's participation in this study is voluntary. You may decide to withdraw your child from this study at any point while they are completing the questionnaires and may do so without any penalty or loss of benefits to which they are entitled. It is not possible to withdraw data once responses have been submitted as there is no way of linking responses to individual participants. Results of this study may be published in professional journals and presented at conferences. Report on the findings will be available September 2010 in the James A. Gibson Library at Brock University or by request.

PUBLICATION OF RESULTS

Results of this study may be published in professional journals and presented at conferences. Feedback about this study will be available through the Student Principal Investigator or the Faculty Supervisor at the phone number and email addresses given above. The results will be available by September 2010.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact the Student Principal Investigator or the Faculty Supervisor using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File #09-084). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

Thank you for your assistance in this project.

CONSENT FOR PARTICIPATION

I agree to allow my child to participate in the study described above. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may withdraw this consent at any time.

Child's Name: _____

Name of Parent or Guardian: _____

Signature of Parent or Guardian: _____ Date: _____

Appendix F: Assent Form for Athletes

Assent Form for Athletes

I am working on a project that looks at coaching behaviours and their impact on young athletes. I am hoping that you will help me to finish my project by completing three surveys.

Who am I?

My name is Laurissa Kenworthy and I am a Masters student at Brock University in the Department of Physical Education.

Why am I doing this study?

I want to find out about how coaching behaviours impact young athletes.

What will happen to you if you are in the study?

I will come to one of your team practices. At the end of practice, you (and your teammates) will fill out a survey about your participation in sport, a survey about how you think your coach behaves and a survey about your behaviours in sport. The surveys will take about 10 to 15 minutes of your time.

Are there good things and bad things about the study?

As far as I know, being in the study will not hurt you or make you feel bad. In fact, it will help me learn things about how coaching behaviours impact young athletes.

Who will know that you are in the study?

The answers you give to the surveys will not have your name with it, so no one will know they are your answers. As the researcher I will not let anyone know your answers or any other information about you. Your coach and your teammates will never see the answers you give.

Do you have to be in the study?

You do not have to be in the study. No one will get angry or upset with you if you don't want to be in the study.

Do you have any questions?

You can ask questions at any time. You can talk to me at any time during the study. Here is how you can contact me: Laurissa Kenworthy, Brock University, Laurissa.kenworthy@brocku.ca.

If you want to be in the study, please print your name on the line below:

Child's name printed: _____

Date: _____

Appendix I: Coach's Sportspersonship Behaviour Observation Form

Coach #

Game Date:

Time:

Quarter #

Score: Own team:

Opponents:

	Positive Sportspersonship Behaviour		Negative Sportspersonship Behaviour	
Respect and Concern for the Rules and Officials	Verbal praise/encouragement		Verbally disagree/argue with ref	
	Clap for referee's call		Gestures consistent with disagreement with ref	
			Ignoring a referee's direction	
Respect and Concern for the Opponent	Specific encouraging remarks to opponent		Comments to demean opponent	
	Specific encouraging gestures to opponent		Gestures to demean opponent	
	Help an opponent up		Talking during free-throw (e.g. 'get the rebound')	
	Check injured opponent		Argue with opponent	
Respect and Concern for Social Conventions	Shake hand with ref		Verbal frustration with own players	
	Shake hands with opponent		Actions demonstrating frustration with own players	
	Pass ball to referee		Displaying acts of aggression	
	Pass ball to opponent		Congratulating own player on intentional foul	
Respect and Concern for One's Full Commitment toward Sport Participation	Specific encouraging remarks (e.g. 'good job' 'keep it up', 'that's it')		Showing up late	
	Specific encouraging gestures (e.g. clap, high five, pat on back)		Not bringing equipment	
	Instruction with a motivational component (e.g. 'hustle back', 'arms up')		Not prepared (e.g. no line-up)	

Appendix G: Coach Questionnaire

Coach Questionnaire

Please answer the following questions to the best of your ability and as truthfully as possible.

1. What is your age: _____

2. What is your ethnicity:

- ☐ Caucasian
- ☐ African/African Canadian
- ☐ Asian/Asian Canadian
- ☐ Aboriginal Peoples of Canada
- ☐ Other: _____

3. What is the highest level of education that you achieved:

- ☐ Graduate or Professional degree
- ☐ Bachelors
- ☐ College or technical training
- ☐ Secondary school diploma
- ☐ Some secondary school

4. Do you have any coaching certification:

- ☐ Yes
- ☐ No

If yes, please specify the highest level of certification: _____

5. How many years have you been a coach (all sports): _____

6. How many years have you been a competitive youth basketball coach: _____

7. How many hours a week does your youth basketball team practice: _____

8. How many hours a week does your youth basketball team compete: _____

9. What division does your youth basketball team compete in: _____

Coach Behaviour in Sport

For each of the following statements, circle the number that best represents the extent to which the statement **corresponds to you as a coach**. There are no right or wrong answers. Your spontaneous and honest response is important for the success of the study. Remember to think about the youth basketball team that you are currently coaching.

	1 Doesn't correspond to me at all	2 Corresponds to me a little	3 Corresponds to me partly	4 Corresponds to me a lot	5 Corresponds to me exactly
1. After a loss, I congratulate the opponent whoever he is.	1	2	3	4	5
2. I obey the referee.	1	2	3	4	5
3. I encourage my athlete(s) to help the opponent get up after a fall.	1	2	3	4	5
4. After a defeat, I shake hands with the opponents' coach.	1	2	3	4	5
5. I respect the rules.	1	2	3	4	5
6. I don't give up even after making many mistakes.	1	2	3	4	5
7. If we are awarded a default win because the opponent is late or doesn't have enough players, I ask the referee to play anyway.	1	2	3	4	5
8. After a competition, I congratulate the opponent for his good performance.	1	2	3	4	5
9. I really obey all rules of my sport.	1	2	3	4	5
10. I think about ways to improve my weaknesses.	1	2	3	4	5
11. When an opponent gets hurt, I ask the referee to stop the game so that he can get help.	1	2	3	4	5
12. It is important to me to be prepared for all practices.	1	2	3	4	5
13. If I see that the opponent is unjustly penalized, I try to rectify the situation.	1	2	3	4	5
14. Win or lose, I shake hands with the opponent after the game.	1	2	3	4	5
15. During practices, I do my best.	1	2	3	4	5
16. If by misfortune, an opponent forgets his equipment, I lend him my spare one.	1	2	3	4	5

Thank you for your participation in this study!

Appendix H: Athlete Questionnaire

Athlete Questionnaire

Please answer the following questions to the best of your ability and as truthfully as possible.

1. What is your age: _____
2. What is your ethnicity:
 - ☐ Caucasian
 - ☐ African/African Canadian
 - ☐ Asian/Asian Canadian
 - ☐ Aboriginal Peoples of Canada
 - ☐ Other: _____
3. How many years have you played sport in an organized league (all sports):

4. How many years have you played competitive basketball: _____
5. How many years have you played for your current head coach: _____

Coach Behaviour in Sport

For each of the following statements, circle the number that best represents the extent to which the statement **corresponds to your head coach**. There are no right or wrong answers. Your spontaneous and honest response is important for the success of the study. Remember to think about your current youth basketball coach.

	1	2	3	4	5
	Doesn't correspond to him at all	Corresponds to him a little	Corresponds to him partly	Corresponds to him a lot	Corresponds to him exactly
1. After a loss, my coach congratulates the opponent whoever he is.	1	2	3	4	5
2. My coach obeys the referee.	1	2	3	4	5
3. In competition, my coach does his best even if we're almost sure to lose.	1	2	3	4	5
4. My coach encourages his athlete(s) to help the opponent get up after a fall.	1	2	3	4	5
5. My coach competes for personal honours, trophies and medals.	1	2	3	4	5
6. After a defeat, my coach shakes hands with the opponents' coach.	1	2	3	4	5
7. My coach respects the rules.	1	2	3	4	5
8. My coach doesn't give up even after making many mistakes.	1	2	3	4	5
9. If we are awarded a default win because the opponent is late or doesn't have enough players, my coach asks the referee to play anyway.	1	2	3	4	5
10. My coach criticizes his athlete(s) after a loss.	1	2	3	4	5
11. After a competition, my coach congratulates the opponent for his good performance.	1	2	3	4	5
12. My coach really obeys all rules of his sport.	1	2	3	4	5
13. My coach thinks about ways to improve his weaknesses.	1	2	3	4	5
14. When an opponent gets hurt, my coach asks the referee to stop the game so that he can get help.	1	2	3	4	5
15. After a competition, my coach uses excuses for a bad performance.	1	2	3	4	5
16. After a win, my coach acknowledges the opponent's good work.	1	2	3	4	5
17. My coach respects the referee even when he or she is not good.	1	2	3	4	5
18. It is important to my coach to be prepared for all practices.	1	2	3	4	5

19. If my coach sees that the opponent is unjustly penalized, he tries to rectify the situation.	1	2	3	4	5
20. When others point out my coach's mistakes after a competition, he refuses to admit that he made those mistakes.	1	2	3	4	5
21. Win or lose, my coach shakes hands with the opponent after the game.	1	2	3	4	5
22. My coach respects an official's decision even if he or she is not the referee.	1	2	3	4	5
23. During practices, my coach does his best.	1	2	3	4	5
24. If by misfortune, an opponent forgets his equipment, my coach lends him his spare one.	1	2	3	4	5
25. If my coach makes a mistake during a crucial time of the match, he gets angry.	1	2	3	4	5

Athlete Behaviour in Sport

For each of the following statements, circle the number that best represents the extent to which the statement **corresponds to you as an athlete**. There are no right or wrong answers. Your spontaneous and honest response is important for the success of the study. Remember to think about the youth basketball team that you are currently playing with.

	1	2	3	4	5
	Doesn't correspond to me at all	Corresponds to me a little	Corresponds to me partly	Corresponds to me a lot	Corresponds to me exactly
1. When I lose, I congratulate the opponent whoever he is.	1	2	3	4	5
2. I obey the referee.	1	2	3	4	5
3. In competition, I go all out even if I'm almost sure to lose.	1	2	3	4	5
4. I help the opponent get up after a fall.	1	2	3	4	5
5. I compete for personal honours, trophies and medals.	1	2	3	4	5
6. After a defeat, I shake hands with the opponents' coach.	1	2	3	4	5
7. I respect the rules.	1	2	3	4	5
8. I don't give up even after making many mistakes.	1	2	3	4	5
9. If I can, I ask the referee to allow the opponent who has been unjustly disqualified to keep on playing.	1	2	3	4	5
10. I criticize what the coach makes me do.	1	2	3	4	5
11. After a competition, I congratulate the opponent for his good performance.	1	2	3	4	5
12. I really obey all rules of my sport.	1	2	3	4	5
13. I think about ways to improve my weaknesses.	1	2	3	4	5
14. When an opponent gets hurt, I ask the referee to stop the game so that he can get help.	1	2	3	4	5
15. After a competition, I use excuses for a bad performance.	1	2	3	4	5
16. After a win, I acknowledge the opponent's good work.	1	2	3	4	5
17. I respect the referee even when he or she is not good.	1	2	3	4	5
18. It is important to me to be present at all practices.	1	2	3	4	5
19. If I see that the opponent is unjustly penalized, I try to rectify the situation.	1	2	3	4	5
20. When my coach points out my mistakes after a competition,	1	2	3	4	5

I refuse to admit that I made those mistakes.					
21. Win or lose, I shake hands with the opponent after the game.	1	2	3	4	5
22. I respect an official's decision even if he or she is not the referee.	1	2	3	4	5
23. During practices, I go all out.	1	2	3	4	5
24. If by misfortune, an opponent forgets his equipment, I lend him my spare one.	1	2	3	4	5
25. If I make a mistake during a crucial time of the match, I get angry.	1	2	3	4	5

Thank you for your participation in this study!