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INVESTIGATING THE ROLE OF GENDER ON ATHLETE LEADERSHIP AND
COACHING BEHAVIOURS

by
Shannon N. Gesualdo

A Thesis
Submitted to the Faculty of Graduate Studies
through the Faculty of Human Kinetics
in Partial Fulfillment of the Requirements for
the Degree of Master of Human Kinetics at the
University of Windsor

Windsor, Ontario, Canada
2011
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Investigating the Role of Gender on Athlete Leadership and Coaching Behaviours

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AUTHOR'S DECLARATION OF ORIGINALITY

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ABSTRACT

The purpose of the present study was to examine the influence of gender on athlete leader and coach leadership behaviours. Two hundred and four athlete leaders ($M_{\text{age}} = 21.18$) completed the Leadership Scale for Sports (Chelladurai & Saleh, 1980) evaluating their own and their coach's leadership behaviours. Athlete leaders were grouped into one of three coach-athlete leader dyads based on the gender of their coach: male coach-male athlete leader, male coach-female athlete leader, and female coach-female athlete leader. Results indicated that regardless of coach-athlete leader dyad, coaches and athlete leader behaviours differed with coaches using more Training and Instruction. In contrast, athlete leaders used more Social Support, Positive Feedback, and Democratic Behaviour compared to coaches. Additionally, it was found that the gender of athlete leaders did not influence their use of leadership behaviours. Findings provide evidence that athlete leader behaviours are consistent across gender and support the notion that coaches and athlete leaders provide different amounts of leadership behaviours to their teams.

ACKNOWLEDGEMENTS

First I must thank my advisor and mentor Dr. Todd Loughead. Without his continual help, support, and guidance this thesis project would not be possible. You have taught me to believe in myself and that I am capable of great things, and for this I am greatly appreciative. I would also like to thank Dr. Krista Munroe-Chandler for her support here at the Sport and Exercise Psychology Lab and constant guidance and encouragement during this process. Additionally, I would like to thank Dr. Dave Bussi re for his contributions to my thesis project. I am truly grateful for the time, effort, and expertise each of you has put into this document and all the feedback you have provided.

Next I would like to thank all my colleagues here at the University of Windsor. Without your continual support inside and outside of the lab I would not be where I am today. I am truly grateful to have met so many wonderful people over my time here. The past two years have been full of good times with great people, making each day a new adventure. Alyson, Eric, and Lindsay, I cannot believe our time here together has come to an end and I thank you for what each of you has taught me.

Last but certainly not least; this project, as well as my entire educational career, would not have been possible without the endless love and support from my mother, father, sisters, and grandparents. Each of you have taught me so much and have encouraged me to always strive for excellence. I thank you for always being there for me and your unconditional love. Without you this would not have been possible, and for that I am forever grateful. I love you all and dedicate this to you.

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RESEARCH ARTICLE

Introduction

Leadership can be defined as “a process whereby an individual influences a group of individuals to achieve a common goal” (Northouse, 2010, p. 3). In defining leadership as a process, Northouse (2010) implied that leadership is not a linear event between two individuals (e.g., coach leading the athletes) but rather an interactive event (e.g., coach and athletes sharing leadership responsibilities). In fact, researchers have become less accepting of the perspective that leadership stems only from one individual (e.g., the coach) in a top-down, hierarchical process (e.g., Wheelan & Johnson, 1996). Instead, it has been suggested that teams (e.g., sport teams) seldom have just one leader (i.e., coach). This perspective raises the possibility that leadership within teams is a shared phenomenon whereby there are several sources of leadership. Therefore, from this perspective, leadership is viewed as a shared activity within a team and all members have the opportunity to actively participate in the leadership of that group.

The notion of shared leadership in sport suggests that both coaches and athletes can serve in positions of leadership within the team setting. Traditionally, sport has examined leadership by focusing on the influence of the coach (Loughead, Hardy, & Eys, 2006). However, recently some research has examined the leadership emanating from the athletes (e.g., Loughead & Hardy, 2005; Vincer & Loughead, 2010). This construct, labeled as athlete leadership, is defined as “an athlete who occupies a formal or informal role within the team, who influences a group of team members to achieve a common goal” (Loughead et al., 2006, p. 144). One model that hypothesizes leadership as a shared phenomenon is Locke’s (2003) Integrated Model of Leadership (see Figure 1a) from the

organizational psychology domain. This model contains a real leader and subordinates and combines a top-down, bottom-up, and shared leadership perspective. Specifically, through the top-down leadership process a real leader continues to exist however there is an upward (bottom-up) influence from the subordinates (i.e., top management) to the leader. Although it should be noted that the upward influence the subordinates have on the leader is not as strong as the downward influence of the leader. Lastly, members with a team influence one another through teamwork processes. Locke (2003) also stated that leaders play a role in creating a sense of shared leadership among their subordinates and that the model may be extended to lower levels of participants. Although this model was originally conceived for organizational settings, if it were applied to sport teams, a hierarchy would exist between the coach at the top holding authority and influence over the athlete leaders (see Figure 1b). However, the relationship would be reciprocal with athlete leaders being able to compliment the leadership of the coach. Additionally, athlete leaders would be able to compliment one another through their interactions.

In an attempt to better understand the relationship between athlete leaders and coaches, Loughhead and Hardy (2005) compared the leadership behaviours displayed by coaches and athlete leaders. The authors hypothesized that athlete leader behaviours would serve to counterbalance the behaviours of the coach; a pattern seen in the business and industry literature in that a peer leaders behaviours are not a simple extension of formal leader behaviours (Wheelan & Johnson, 1996). The participants were 238 athletes from a variety of independent (e.g., wrestling, track and field) and interdependent (e.g., ice hockey, soccer, rugby) sport teams. The leadership behaviours of coaches and athlete leaders were measured using the Leadership Scale for Sports (LSS; Chelladurai & Saleh,

1980). The results revealed that coaches and athlete leaders differed in the use of the five leadership behaviours. Specifically, athletes perceived coaches to use more often Training and Instruction (behaviour aimed at improving team member's performance) and Autocratic Behaviour (a leader's independence in decision making) than athlete leaders. In contrast, athletes perceived their athlete leaders to exhibit greater amounts of Social Support (a concern for the welfare of athletes or teammates), Positive Feedback (a leader's tendency to praise, recognize, and reward good work), and Democratic Behaviour (the degree a leader allows participation by team members in decision-making) than their coaches. Taken together, the results of this study indicated that athlete leader behaviours differed from the leadership behaviours of their coaches.

While the results from Loughead and Hardy (2005) provided empirical evidence that coaches and athlete leaders used differing amounts of leadership behaviours, the authors did not examine the impact of coaches and/or athlete leader gender and how this may influence the frequency of leadership behaviours. Research has shown that gender biases towards coaches may exist as a predetermined perception of a specific gendered coach (Frankl & Babbitt, 1998). These gender biases are able to surface as an athlete has the possibility to be coached by a person of the same or opposing gender. As a result, four coach-athlete gender dyads exist in sport: male coach-female athlete, male coach-male athlete, female coach-female athlete, and female coach-male athlete.

To date, there has been no research examining how these coach-athlete gender dyads impact the leadership behaviours of athlete leaders. Despite the paucity of research, there has been some research investigating gender differences with regards to coaching behaviours. This body of research has examined whether a coach's gender influences

his/her own leadership behaviours, the athletes' perceived or preferred coaching behaviours based on their coach's gender, and the use of hypothetical scenarios to determine how athletes would react to being instructed by a coach of the same or opposite gender. In terms of whether a coach's gender influence his/her leadership behaviour, Jambor and Zhang (1997) examined the differences in male ($n = 118$) and female ($n = 44$) coaches from the high school and college levels. It should be noted that the coaches completed a revised version of the Leadership Scale for Sports (RLSS; Zhang, Jansen, & Mann, 1997) and were asked to evaluate their perceived coaching behaviours. The RLSS includes the same five leader behaviours as the LSS, however has an additional sixth leadership behaviour entitled Situational Consideration, which refers to a leader's individualized attention to the team and its unique characteristics, such as team selection and setting appropriate goals. The results indicated that male and female coaches significantly differed on only one leadership behaviour. In particular, female coaches perceived themselves to use more Social Support leadership behaviour than their male counterpart.

Similar to Jambor and Zhang (1997), Andrew and Hums (2007) examined the impact of a coach's gender on leadership behaviours from both the coach and athlete perspective. Participants included 167 female varsity tennis players and 111 coaches ($n = 40$ male coaches, $n = 71$ female coaches). Coaches were asked to evaluate their own leadership behaviours using the RLSS, while athletes evaluated the leadership behaviours of their coaches. Results revealed that female coaches reported providing significantly less Autocratic Behaviour compared to male coaches, however athletes did not perceive any differences in leadership behaviours between male and female coaches. Additionally,

Mondello and Janelle (2001) examined the leadership behaviours of 37 coaches based on the gender of the coaches and a second analysis based on the gender of the athletes they coached. Utilizing the LSS, the only significant main effect was found for the coaching behaviour of Positive Feedback, in that coaches of male athletes provided significantly greater amounts than coaches of female teams.

In an examination of an athlete's preferred coaching behaviour based on gender, Sherman, Fuller, and Speed (2000) sampled 170 male and 142 female Australian athletes aged 18-35 years representing three sports (Australian football, netball, basketball). Unfortunately, the authors did not provide the competition levels of their sample but indicated that the sample from the three sports were similar in ability. The participants were asked to complete the athlete preference version of the LSS, which asked them to indicate the amount of coaching behaviours they preferred to receive from their coach. The findings indicated a high level of similarity in coaching preference between male and female athletes. Regardless of gender, athletes preferred their coaches to display high amounts of Positive Feedback, Training and Instruction, and Democratic Behaviour. Further, the coaching behaviours of Social Support and Autocratic Behaviour were least preferred by both male and female athletes. Using a similar research design as Sherman et al. (2000), Beam, Serwatka, and Wilson (2004), examined athletes' preferred coaching behaviours of American varsity athletes (179 males, 229 females) competing in a variety of sports. In contrast to the findings from Sherman et al., (2004) the results showed that male athletes preferred receiving significantly more Autocratic Behaviour and Social Support leadership behaviours from their coaches compared to female athletes. In

addition, female athletes preferred that their coaches use more Situational Consideration and Training and Instruction behaviour than male athletes.

The final method used to examine gender differences in coaching behaviours has been the use of hypothetical scenarios. Weinberg, Reveles, and Jackson (1984) provided a hypothetical scenario to high school male and female basketball players introducing a new coach to the team. The players were randomly assigned to either a scenario containing a male or female coach. Both scenarios were identical in terms of content (e.g., coaching experience) and differed only in terms of the coach's gender. After reading the hypothetical scenario, the players were asked to complete an attitudinal questionnaire about the coach in their scenario. The results indicated that male basketball players displayed a more negative attitude towards the female coach than did female players. However, male and female players did not differ in their perceptions of the male coach. Using the same hypothetical situation and attitudinal questionnaire as Weinberg et al. (1984), Frankl and Babbit (1998) modified the scenario for high school track and field athletes. The authors found both male and female athletes coached by a male responded more positively to the new coach than male and female athletes coached by a female.

Research examining gender difference between male and female coaches' leadership behaviours has resulted in equivocal findings and no research has yet to examine leadership differences between male and female athlete leaders. Therefore, the primary purpose of the present study was to examine gender differences between athlete leader and coach leadership behaviours. In order to investigate this purpose, three coach-athlete leader gender dyads were examined: male coach-male athlete leader, male coach-female athlete leader, and female coach-female athlete leader.¹ A secondary purpose was

to examine whether there were gender differences in athlete leadership behaviours between male and female athlete leaders. Given that previous research has not examined the leadership behaviours of athlete leaders while taking into account gender, no a priori hypotheses were advanced for each specific leadership behaviour. However, based on previous research (e.g., Beam et al., 2004; Jambor & Zhang, 1997; Sherman et al., 2000), it is hypothesized that the male and female athlete leaders will demonstrate different leadership behaviours.

Method

Participants

The current study included 204 ($n = 69$ male, $n = 135$ females) varsity athlete leaders from a total of 24 teams ($n = 4$ basketball, $n = 7$ hockey, $n = 13$ volleyball) within the province of Ontario. A total of 30 teams were contacted with 28 teams indicating their willingness to participate. In the end, 24 teams participated in the current study, resulting in a response rate of 80%. The six teams unable to participate in the study indicated reasons related to scheduling conflicts and the coaches failure to return emails. The mean age of the athlete leaders was 21.18 years ($SD = 1.95$) and they had been on their current team for 2.5 years ($SD = 1.20$). In terms of starting status, the majority of athlete leaders (69%; $n = 140$) viewed themselves as a starter. Finally, there were a total of 69 male athlete leaders coached by a male, 75 female athlete leaders coached by a male, and 60 female athlete leaders coached by a female.

Measures

Athlete leader status. The participants self-identified themselves as an athlete leader for their current team. In order to assist the athletes decide whether they were an

athlete leader, definitions of formal (i.e., an athlete that is selected by the team or coach to be in a leadership position) and informal (i.e., established through interactions with team members, not formally appointed by coach or team) athlete leadership were provided based on definitions advanced by Loughead et al. (2006). Using these two definitions as a guide, the participants selected one of these two leadership roles only if it applied to them. It should be noted that 299 athletes completed the questionnaire package with 204 of the athletes identifying themselves as an athlete leader. Of the 204 self-identified athlete leaders, 33% ($n = 67$) identified themselves as a formal athlete leader, while 67% ($n = 137$) viewed themselves as an informal athlete leader. Only athletes who self-identified themselves as an athlete leader ($n = 95$) were included in the current study. Athletes who did not identify themselves as an athlete leader were removed from the study. Additionally, formal athlete leaders and informal athlete leaders were grouped together and labeled athlete leaders for the purpose of this study.

Coach behaviours. The participants assessed their coach's leadership behaviour using the LSS (Chelladuari & Saleh, 1980). The LSS is the most widely used inventory to measure leadership behaviours in sport. Research using the LSS to measure coaching behaviours has provided evidence that the inventory is internally consistent (Loughead & Hardy, 2005), and has content (Chelladurai & Saleh, 1980), concurrent (Cumming, Smith, & Smoll, 2006), convergent, (Gardner, Shields, Bredemeier, & Bostrom, 1996), and factorial (Chelladurai & Saleh, 1980) validity.

The LSS is a 40-item inventory that measures five dimensions of leadership behaviours. The LSS has been used to measure (a) athletes' preferences for specific coaching behaviours, (b) athletes' perceptions of their coach's leadership behaviours, and

(c) coaches' perception of their own leadership behaviours. In the present study, the participants completed the athletes' perceptions version of their coach's leadership behaviours. As a result, this version contains the stem "My coach..." followed by the items.

The Training and Instruction dimension contains thirteen items and assesses leadership behaviours aimed at improving athletic performance. An example item is: 'Sees to it that every team member is working to his/her capacity'. Democratic Behaviour consists of nine items and assesses leadership behaviour that allows participation in decision making concerning team goals, practice methods, and game tactics. An example item is: 'Lets team members decide on plays to be used in a game'. Autocratic Behaviours comprised of five items and measures leadership behaviour that stresses personal authority. An example item is: 'Refuses to compromise a point'. Social Support contains eight items and measures leadership behaviours that are concerned for the welfare of others and having a positive group environment. An example item is: 'Helps team members with personal problems'. Positive Feedback consists of five items and assesses leadership behaviour that recognizes, rewards, and praises good performance. An example item is: 'Compliments a team member for his/her performance in front of the others'.

All items were scored on a 5-point Likert type scale and are quantified as 1 = *never*, 2 = *seldom* (25% of the time), 3 = *occasionally* (50% of the time), 4 = *often* (75% of the time), and 5 = *always*. The items for each dimension of leadership behaviour are summed and then an average is computed for each dimension. Consequently, scores can

range from 0 to 5 with higher scores indicating higher frequency of that leadership dimension.

Athlete leader behaviours. Athlete leader behaviours were measured using a modified version of the LSS (Chelladurai & Saleh, 1980). This modified version of the LSS measures the same five leadership behaviours with the only change concerning the stem which precedes the items. For the athlete leader version the stem read “On my team, I...” in order to measure perceptions of their own leadership behaviours. All five dimensions of the athlete leadership version of the LSS have displayed adequate internal consistencies (e.g., Loughead & Hardy, 2005). In addition, research has shown that this version of the inventory is valid with evidence of factorial (Vincer & Loughead, 2010), concurrent (Loughead & Hardy, 2005), and convergent (Vincer & Loughead, 2010) validity.

Procedure

Approval from the University of Windsor’s Research and Ethics Board was granted for this project and coaches were contacted via email to describe the study and request permission to administer the survey to the athletes on their teams. Once permission was obtained from coaches, athletes were approached prior to or following a practice session and given a comprehensive description of the study. At this time, athletes received a letter of information for their records and informed consent was implied through completion and return of the questionnaires. Confidentiality and anonymity of responses was guaranteed. Each questionnaire package was distributed and returned in an unmarked envelope that took approximately 15 minutes to complete.

Results

Descriptive Statistics

Prior to any statistical analyses, the data were analyzed to identify patterns of missing data. Tabachnick and Fidell (2007) recommended less than 10% of the data be missing and it be scattered at random. The results revealed that 5% of the data were missing values and that it was scattered at random. Outliers were then examined using box plots and were transformed closer to the center of distribution for that particular variable (Tabachnick & Fidell, 2007). On average, two to three variables were transformed per item. Further, the residuals were plotted against a normal distribution line to examine normality, followed by plotting the residuals against each independent variable to examine linearity. The resulting plots were shown to be normal.

Internal consistencies were calculated for each dimension of athlete leader and coach leadership behaviour (see Table 1). Nunnally and Bernstein (1994) recommended internal consistency values greater than .70 and this value was used as a cut-off to demonstrate adequate reliability. The results showed that all leadership dimensions were over the .70 threshold except for the athlete leader and coaching leadership dimension of Autocratic Behaviour ($\alpha = .62$ and $\alpha = .56$, respectively) and therefore this leadership dimension was removed from further analysis.

Means and standard deviations scores for the five dimensions of leadership behaviours for both athlete leaders and coaches are presented in Table 1. When examining their own leadership behaviour, athlete leaders rated Positive Feedback the highest on a 5-point Likert scale ($M = 4.29$, $SD = .52$), followed by Social Support ($M = 4.02$, $SD = .57$), then Democratic Behaviour ($M = 3.64$, $SD = .56$), Training and Instruction ($M = 3.39$, $SD = .65$), and finally Autocratic Behaviour ($M = 2.63$, $SD = .69$).

When examining leadership behaviours received from their coaches, athlete leaders rated Training and Instruction the highest ($M = 4.15$, $SD = .59$), followed by Positive Feedback ($M = 3.88$, $SD = .80$), Social Support ($M = 3.35$, $SD = .75$), Democratic Behaviour ($M = 3.23$, $SD = .71$), and Autocratic Behaviour ($M = 3.18$, $SD = .69$).

The relationship between the leadership behaviours are presented in Table 2 using bivariate correlations. The majority of leadership behaviours were positively related to one another ($r = .18-.71$) with the exception of Autocratic Behaviour, which was negatively related to other leadership behaviours. The direction of the relationship amongst leadership behaviours is consistent with current theorizing (e.g., Loughead & Hardy, 2005).

Gender Differences between Athlete Leader and Coach Leadership Behaviours

The primary purpose of the study was to investigate gender differences between athlete leader and coach leadership behaviour. Athlete leaders were separated into one of three groupings based on their gender and the gender of their coach. This resulted in the creation of three gender dyads: male coach-male athlete leader ($n = 69$), male coach-female athlete leader ($n = 75$), and female coach-female athlete leader ($n = 60$).

Using these three gender dyads, four paired t -tests were computed for each of the four dimensions of the LSS. Due to the fact that multiple comparisons were computed, a Bonferroni adjustment was made resulting in a p value of .013 to achieve statistical significance. This adjustment was accomplished by dividing the significance value ($p = .05$) by the number of tests, $k = 4$ (Bland & Altman, 1995). Prior to conducting the paired t -tests, several statistical assumptions were examined. These assumptions included that the sample was normally distributed, data were parametric, and that variances within the

two populations were roughly equal in terms of homogeneity of variance (Field, 2009). These assumptions were fulfilled and the results of the paired *t*-tests are described below based on the three coach-athlete leader gender dyads and are summarized in Table 3.

Male coach-male athlete leader. Results revealed that male coaches significantly displayed more Training and Instruction behaviours than male athlete leaders $t(68) = -5.82, p = .000$. However, male athlete leaders were found to use significantly more Democratic Behaviour, Social Support, and Positive Feedback than male coaches, $t(68) = 3.41, p = .000, t(68) = 4.05, p = .000$, and $t(68) = 2.57, p = .01$, respectively.

Male coach-female athlete leader. Male coaches provided significantly more Training and Instruction than female athlete leaders, $t(75) = -11.10, p = .000$. Conversely, female athlete leaders provided significantly more Democratic Behaviour, Social Support, and Positive Feedback than male coaches, $t(75) = 3.68, p = .000, t(75) = 6.78, p = .000, t(75) = 4.04, p = .000$, respectively.

Female coach-female athlete leader. Female coaches were found to display significantly more Training and Instruction than female athlete leaders, $t(59) = -10.34, p = .000$. In contrast, female athlete leaders were found to provide significantly more Democratic Behaviour, Social Support, and Positive Feedback than their female coaches, $t(59) = 6.86, p = .000, t(59) = 8.63, p = .000$, and $t(59) = 6.45, p = .000$, respectively.

Gender Differences in Athlete Leadership Behaviours

The secondary purpose of the present study was to examine gender differences in athlete leadership behaviours. As a result, a Multivariate Analysis of Variance (MANOVA) was computed with the dependent variable operationalized as athlete leadership behaviours (i.e., Training and Instruction, Democratic Behaviour, Social

Support, Positive Feedback) and the independent variable of athlete leader gender. Prior to running this MANOVA assumptions were examined and satisfied. The MANOVA, examining athlete leader behaviours across the three gender dyads was non-significant, Pillai's trace = .04, $F(4, 199) = 1.79, p > .05$. This finding indicated that athlete leader behaviours did not differ between male and female athlete leaders.

Discussion

The primary purpose of the current study was to examine the frequency of leadership behaviours exhibited by coaches and athlete leaders in relation to gender. To achieve this objective, three coach-athlete leader gender dyads were examined: male coach-male athlete leader, male coach-female athlete leader, and female coach-female athlete leader. The secondary purpose of the present investigation was to examine the differences in the frequency of athlete leader behaviours between male and female athlete leaders.

With respect to the first purpose, the results indicated that regardless of gender certain leadership behaviours are used more often by coaches and athlete leaders. Notwithstanding of the coach-athlete leader gender dyads, coaches were perceived by their athlete leaders to use significantly more Training and Instruction than athlete leaders, while athlete leaders provided greater amounts of Social Support, Positive Feedback, and Democratic Behaviour than coaches. In summary, gender does not influence the amount and type of leadership behaviours exhibited by coaches and athlete leaders.

Although leadership behaviours of coaches and athlete leaders have been compared in previous research (e.g., Loughhead & Hardy, 2005), it was important to

assess the influence of gender on these behaviours within various coach-athlete leader dyads as gender biases have been shown to exist towards coaches (e.g., Frankl & Babbit, 1998). In particular, the results of the current study are similar to the findings of Loughhead and Hardy (2005) in that coaches displayed Training and Instruction more frequently than athlete leaders, and that athlete leaders displayed significantly more Social Support, Positive Feedback, and Democratic Behaviour than coaches.

Additionally, the results of the present study are consistent with the business and industry literature, in that the leadership behaviours of peer leaders did not parallel those of formal leaders but rather served as a counterbalance (Wheelan & Johnson, 1996). This type of counterbalance may be required as a coach may not have the time to work individually with each athlete, and therefore an athlete leader may fill the void left by his or her coach. As Loughhead et al. (2006) found, athlete leaders serve many functions by providing leadership on task (e.g., assist in achieve of team goals/objectives), social (e.g., help satisfy member psychological needs), and external areas (e.g., represent the team in the media). Therefore, athletes may turn to their athlete leaders for certain leadership behaviours if their coach is unable to provide them with the leadership they require or prefer.

No research, to our knowledge, has examined gender differences in athlete leader behaviours. However, research has compared perceptions of leadership behaviours displayed by male and female coaches. The findings of the current study support the results of Andrew and Hums (2007) who found that female tennis players did not perceive any differences in leadership behaviours between male and female coaches. Although the athletes from that study competed in a co-active sport (i.e., tennis), the

results are similar to those of the current study using interdependent sport athletes. The findings that male and female coaches and athlete leaders are not perceived to exhibit different leadership behaviours may be explained through the notion of shared leadership. In particular, shared leadership is a dynamic, interactive event among individuals in a group to achieve a goal (Pearce & Conger, 2003). For instance in Locke's (2003) model of integrated leadership, there is no mention that gender moderates the influence between followers and subordinates (see Figure 1). Further, evidence that males and females do not differ in leadership behaviours may be found in the sociological literature. In particular, Ridgeway and Smith-Lovin (1999) stated in their review that few differences are found in the way that men and women in similar positions of formal authority (e.g., coaches and athlete leaders) interact with same or other sex subordinates.

It should be noted that not all previous research supports the results of the current study. In particular, research has found differences in leadership behaviours between male and female coaches. For example, Jambor and Zhang (1997) found female coaches to score higher in the behaviours of Social Support compared to male coaches, while Mondello and Janelle (2001) found coaches of male teams provided greater amounts of Positive Feedback to their athletes compared to female coaches. The differences in findings may be a result of previous research asking coaches to rate their own leadership behaviours. In comparison, the present study had athlete leaders rate the leadership behaviours of their coach. This is an important distinction to make since previous research has shown perceived leadership behaviours assessed by athletes were different from the self-reported leadership behavior by coaches. For example, research by Horne and Carron (1985) indicated that coaches perceived themselves to provide more Training

and Instruction, Democratic Behaviour, Social Support, and Positive Feedback than what their athletes perceived. Furthermore, female coaches perceived themselves to provide less Autocratic Behaviour to athletes than male coaches however this difference was not perceived by the athletes (Andrew & Hums, 2007).

With regards to the second purpose of the current study, it was hypothesized that male and female athlete leaders would demonstrate different leadership behaviours. The results of the current study did not support that hypothesis. Specifically, when the leadership behaviours of athlete leaders were compared between male and female athlete leaders no significant differences were found. This finding is similar to research findings in the organizational psychology setting. In a review by Ridgeway and Smith-Lovin (1999), it was stated that few behavioural differences are found between men and women in similar positions of formal authority in the ways they interact with subordinates. The authors suggested that this equality in behaviours may follow role theory (Eagly, 1987). Specifically, interactional behaviours are shaped by one's role in a specific setting and that males and females will act alike in similar formal roles. Thus, in the context of sports, the role of a coach or athlete leader may shape one's behaviours and frequencies of these behaviours regardless of gender.

Previous research examining athlete leadership behaviours has not compared differences between male and female athlete leaders (e.g., Loughead & Hardy, 2005; Paradis, 2010; Vincer & Loughead, 2010). The results of the current study indicate that male and female athlete leaders use athlete leadership behaviours to the same extent. Due to the lack of research examining athlete leader behaviours and gender, the results are compared to research examining coaching leadership behaviours. In particular, the results

of the present study are compared to coaching studies that have examined how coaches perceived their own leadership behaviours. As previously mentioned, past research has found that female coaches perceived themselves to use more Social Support than male coaches (Jambor & Zhang, 1997). Additionally, results from Andrews and Hums (2007) showed that female coaches displayed significantly more Autocratic Behaviour compared to male coaches. However, Mondello and Janelle (2001) compared the leadership behaviours reported by male and female coaches and found no significant differences. In their discussion, the authors suggested that gender may not be a factor in sport leadership for athletes or coaches. The results of the current study further support this statement and provide evidence that male and females complete similar leadership behaviours.

The results of the present study have theoretical and applied implications. Theoretically, the results emphasize the notion of shared leadership in sport, in that leadership is broadly distributed to various individuals within a group (i.e., athlete leaders and coaches) rather than being assigned to an individual in a centralized position (Pearce & Conger, 2003). Additionally, the results provide evidence that leadership is an activity that is to be distributed among members of a group (e.g., athlete leaders and coaches). The idea that leadership is shared between coaches and athlete leaders may be beneficial to the team. First, coaches may not have all the necessary leadership behaviours required for certain situations, thus other leaders (i.e., athlete leaders) may be in a better position to provide leadership. Second, it may be beneficial to have multiple leaders to enhance the quality of the decisions that are being executed in the team environment. For example during a game, the coach may not always be able to instruct what play should be used and therefore athlete leaders must make quick decisions and inform the athletes on the

playing field of these decisions. Lastly, shared leadership may be useful as the complexity of tasks often required more than one individual for the team to be successful.

Taken together, the results of the current study provide initial empirical evidence of the Integrated Model of Leadership (Locke, 2003) for sport. This model highlights that leadership is a shared phenomenon and exists in organization (i.e., sport teams) that have a top-down (coach in a position of hierarchy) and a bottom-up (athlete leaders compliment their coaches) structure (see Figure 1).

As for applied implications, the results of the current study provide evidence that all athletes, regardless of their gender, should be provided with opportunities to develop their leadership skills. Workshops have been developed to educate captains on leadership, for example the Michigan High School Athletic Association Captains Leadership Training Project run by Michigan State University, however the results of the current study would suggest that these workshops should target a boarder athlete audience. Specifically, captains are not the only source of leadership within a team, rather each athlete has the opportunity to demonstrate leadership behaviours. Therefore educational and training workshops on leadership behaviours should be offered to all athletes regardless of gender. Additionally, as coaches complete the National Coaching Certification Program (NCCP) courses, information should be offered highlighting and explaining the importance of athlete leaders within sport teams in both male and female sports. Additionally, provincial and/or national sporting organizations should provide clubs with information on the importance of athlete leaders, who could then take this information and share it with coaches and athlete leaders representing their clubs. An

additional method that organizations could use to educate coaches and athletes may be to provide online seminars and tutorials through the internet.

While the current study contributes to the athlete leadership literature, it is not without limitations. One limitation of the current study is that data were collected using self-reported inventories. This may result in response bias in terms of social desirability. However, to minimize this limitation, the questionnaire packages were distributed in unmarked envelopes and were completed independently and anonymously.

The low internal consistency value found for both athlete leader and coaching Autocratic Behaviour is another limitation of the current study. This low value has also been reported in past literature examining coaching leadership behaviours (e.g., Murray, 2006) as well as athlete leadership (e.g., Paradis, 2010). This poor internal consistency value for athlete leaders may be the result of assessing athlete leader behaviours using the LSS as this inventory was originally created to assess coaching leadership behaviours (Chelladurai & Saleh, 1980). Although the athlete leader version of the LSS has been shown to be valid and reliable, the dimension of Autocratic Behaviour may not be relevant to athlete leader behaviours. As the current research was the first to have athlete leaders examine the own leadership behaviours, athlete leaders may have difficulty judging how much they use this type of behaviour because it is negative scope compared to the other four dimensions of the LSS. Therefore, future research is needed to determine if this behaviour is relevant to athlete leaders, and the development of an athlete leader questionnaire should be considered.

A final limitation of the present study is that it only assessed three sporting contexts of basketball, hockey, and volleyball at the varsity level. Consequently, the

results lack generalizability across other interdependent sports (e.g., soccer, lacrosse) and competitive levels (e.g., club, high school). It may be argued that varsity level athletes are compete at a fairly high level and comparing the results to athletes who play at a lower level of competition is not advisable as previous research has found differences between these two groups of athletes (e.g., Blomqvist, Luhtanen, & Laakso, 2000; Kitsantas & Zimmerman, 2001). For instance, Kitsantas and Zimmerman (2001) examined the differences between female expert (i.e., varsity level), non-expert (i.e., university club level), and novice (i.e., no organized level participation) college-aged volleyball players. The results showed varsity level athletes displayed better goals, planning, strategy use, self-monitoring, self-evaluation, and adaption than university club or no organized level athletes. The differences between competitive level is also present in the youth sport (e.g., Blomqvist, et al., 2000). High level youth badminton players (i.e., part of the Finnish Badminton Association) were found to be more skilled in their sport, played more effective shots, and understood the game situations better than novice level players.

Furthermore, the results may not be generalized to co-active (sports such as tennis and golf). Previous research examining coach behaviours and athlete satisfaction in team and individual sports found that an athlete's satisfaction with his/her coach differed in perceptions of coaching behaviours between team and individual sport athletes (Baker, Yardley, & Côté, 2003). Specifically, highly satisfied team sport athletes perceived their coach to use more mental preparation, teach more technical skills, goal setting, competition strategies, and develop a better personal rapport than individual sport athletes. Future research may compare the leadership behaviours of coaches and athletes within an individual sports setting. Additionally, as all the participants competed in

varsity sports within the province of Ontario (OUA and OCAA), the results may not be applicable outside of the province or to other cultural settings.

Although the results of the current study expand the literature examining athlete leadership, a number of possible future directions can be advanced. Researchers may explore all four coach-athlete gender dyads through the use of hypothetical scenarios. This would allow for the fourth gender dyad of female coach-male athletes to be explored— something that was impossible to do in the present study. The use of hypothetical scenarios has been used in previous coaching researcher to examine attitudes toward male and female coaches (Frankl & Babbitt, 1998; Weinberg, Reveles, & Jackson, 1984), and could provide more insight into the domain of athlete leadership. Finally, as the leadership behaviours of coaches were quantified through the perception of their athletes, future research may compare the actual behaviours of coaches to the actual behaviours of athlete leaders. This may be completed by having coaches complete the LSS evaluating their own leadership behaviours and comparing the frequency of behaviours between gender dyads.

In conclusion, the current research supports the notion that athlete leaders and coaches differ in leadership behaviours and highlights that shared leadership may be occurring in sport settings. Overall, both coaches and athlete leaders serve in positions of leadership within the team setting and influence the team as a whole. These results highlight the different leadership roles coaches and athlete leaders have within a team and stress the importance of understanding that coaches and athlete leaders influence the team environment in different ways. Athlete leaders should not simply be viewed as an extension of a coach, but rather should be seen as a separate individual providing

different amounts of leadership behaviours. In addition, gender of both the coach and athlete leader does not influence the frequency of leadership behaviours that are being displayed. The results further support the statement that the leadership styles of male and females are not inherently different (Jambor & Zhang, 1997). In summary, all athlete leaders, regardless of their gender or the gender of their coach, demonstrate leadership behaviours and should be given the opportunity to develop these skills to be a successful both on and off the field of play.

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Footnote

1. Theoretically, four coach-athlete leader gender dyads exist in sport (male coach-male athlete leader, male coach-female athlete leader, female coach-female athlete leader, and female coach-male athlete leader). However, there was only one female coach in the province of Ontario coaching male athletes. Consequently, this gender dyad was not examined in the current study.

Table 1

Descriptive Statistics for Athlete Leader and Perceived Coaching Behaviours

Variable	Athlete Leader			Coach		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
1. Training and Instruction	3.39	0.65	.89	4.15	0.59	.90
2. Democratic Behaviour	3.64	0.56	.72	3.23	0.71	.80
3. Autocratic Behaviour	2.63	0.69	.62	3.18	0.69	.56
4. Social Support	4.02	0.57	.78	3.35	0.75	.84
5. Positive Feedback	4.29	0.52	.74	3.88	0.80	.89

Note. Scores for all leadership variables range from 1-5.

Table 2

Bivariate Correlations Between Athlete Leadership Behaviours and Coaching Leadership Behaviours

Variable	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Training and Instruction- Athlete Leader	.31**	.52**	.35**	.21**	-.05	.41**	.34**	.35**	.19**
2. Democratic Behaviour- Athlete Leader	-	.11	.50	-.06	-.02	.18**	.54**	.27**	.47**
3. Autocratic Behaviour- Athlete Leader		-	.27**	.10	.06	.48**	.18*	.47**	.08
4. Social Support- Athlete Leader			-	.67*	-.07	-.01	.61**	.19**	.60**
5. Positive Feedback- Athlete Leader				-	.36**	-.12	.10	.14*	.01
6. Training and Instruction- Coach					-	.04	.16*	-.11	-.21**
7. Democratic Behaviour- Coach						-	.09	.46**	-.03
8. Autocratic Behaviour- Coach							-	.21**	.71**
9. Social Support- Coach								-	.34**
10. Positive Feedback- Coach									-

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

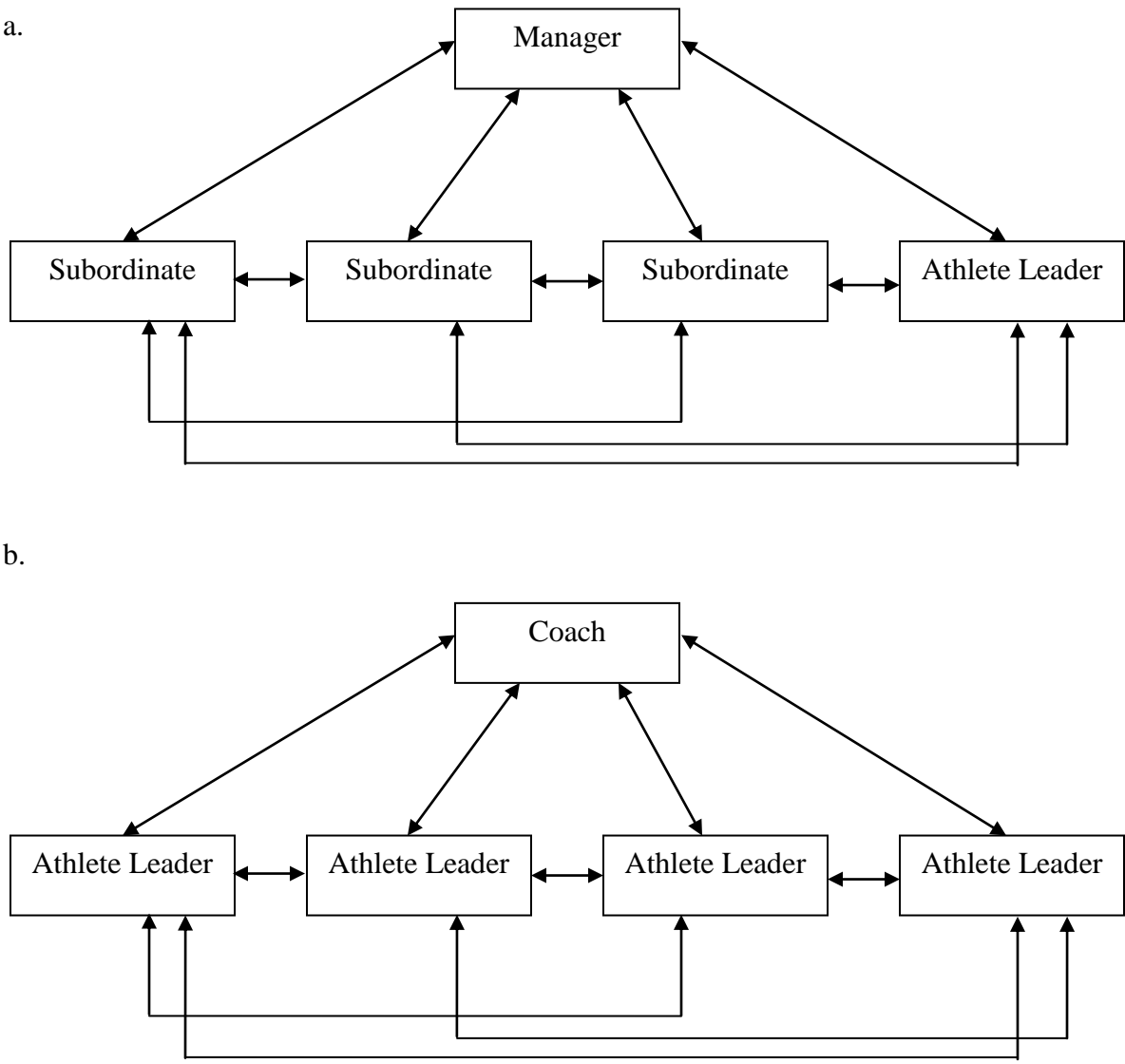


Figure 1. Adapted from “Leadership: Starting at the top” by E. A. Locke, 2003. In C. L. Pearce and J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 271-284). Thousand Oaks, California: Sage Publications, Inc.

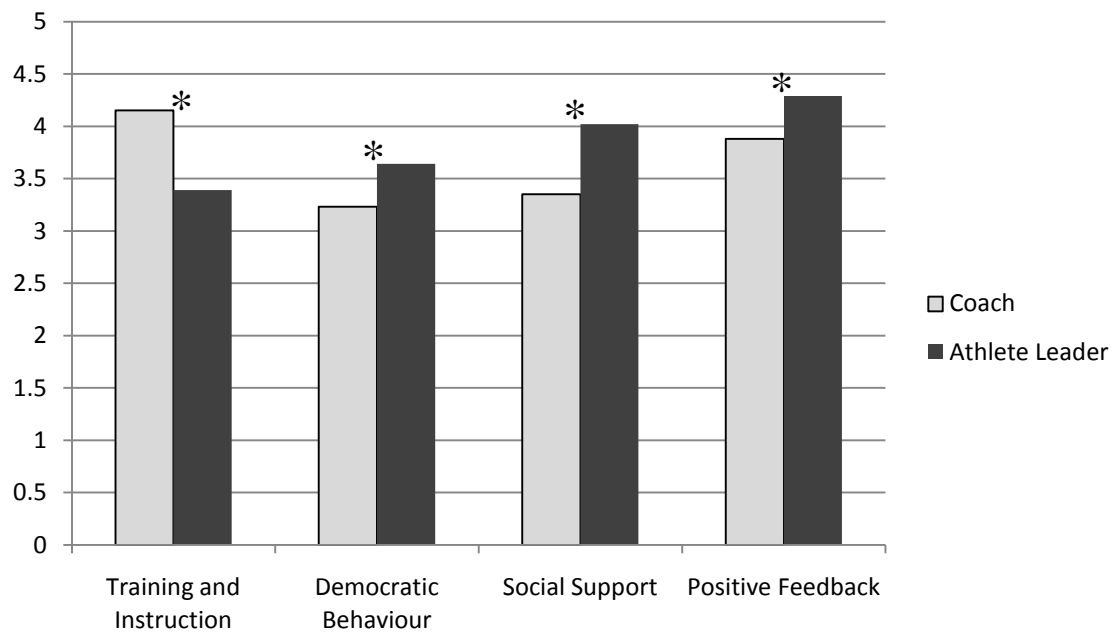


Figure 2. Results of the t-test for male athlete leader and male coaching behaviour.
* $p < .013$ with Bonferroni adjustment

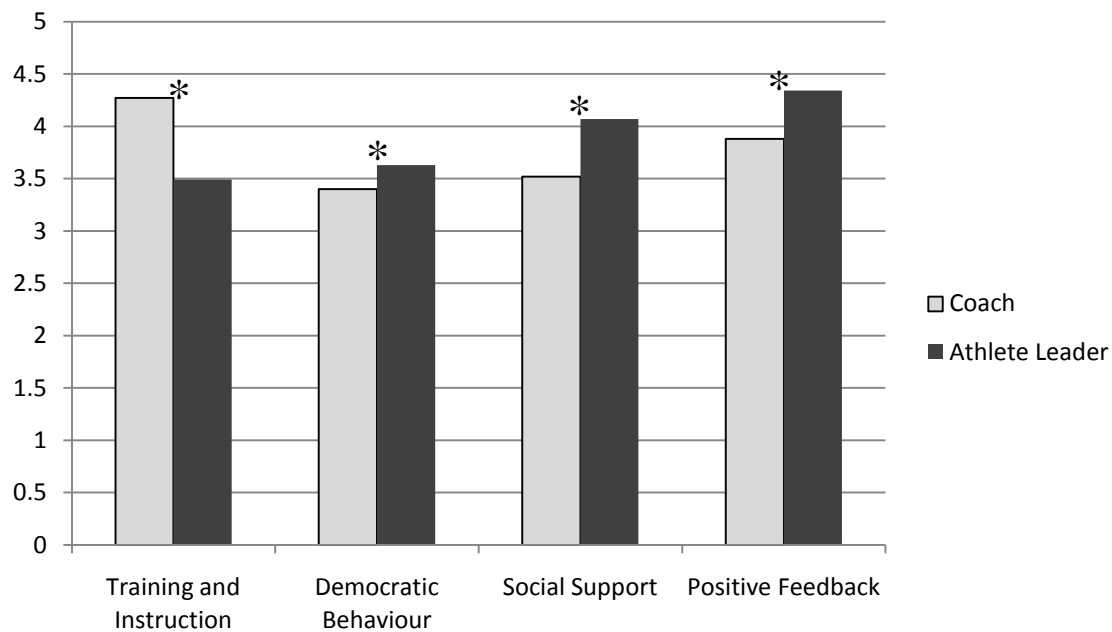


Figure 3. Results of the t-test for female athlete leader and male coaching behaviour.
* $p < .013$ with Bonferroni adjustment

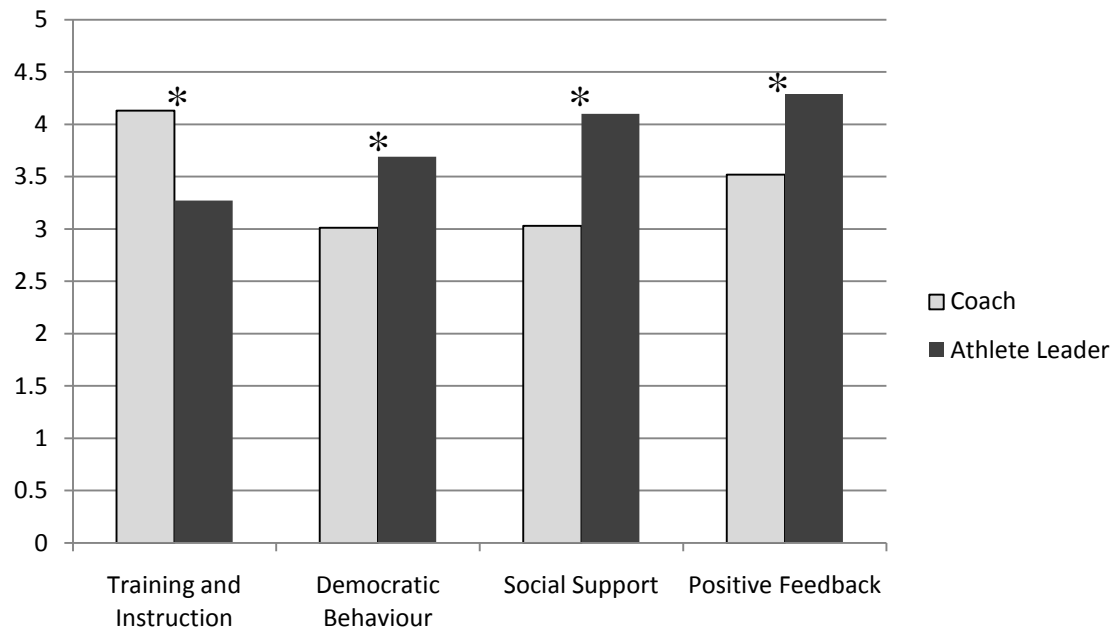


Figure 4. Results of the t-test for female athlete leader and female coaching behaviour.
* $p < .013$ with Bonferroni adjustment

LITERATURE REVIEW

The purpose of the thesis was to investigate the different behaviours that male and female athlete leaders and their coaches exhibit. The review of literature will be divided into four parts; (a) leadership, (b) coaching, (c) athlete leadership, and (d) gender.

Leadership

This first section of the thesis will define leadership, examine the construct of shared leadership, and describe a model of leadership in sport. Finally, a measurement tool to quantify leadership will be explained.

Defining Leadership

In the last five decades, as many as 65 definitions have been advanced concerning leadership (Northouse, 2010). There have been definitions based on the perspective that leaders are the *focus of group processes* (i.e., leader at the centre of change), *personality perspectives* (i.e., leadership is a combination of special characteristics), *leader behaviours* (i.e., things leaders do within groups), *power relationships* (i.e., leaders exert their influence over followers), and leaders are an *instrument of goal achievement* (i.e., helping group members achieve goals and meet needs). Regardless of the perspective, Northouse (2010) identified four common characteristics central to leadership: leadership is a process, leadership involves influence, leadership occurs in groups, and leadership involves a common goal. The first characteristic that leadership is a process refers to the notion that leadership is not a trait nor a characteristic but rather an interactive event between leaders and followers. The second characteristic notes that leadership involves influence and a leader must be able to affect his/her followers. Next, leadership occurs within a group setting and involves influencing a group of individuals who share a

common purpose. The final characteristic of leadership is the attention to common goals shared by a group. A leader must communicate with team members and work collectively to achieve mutual goals. Based on these four characteristics, Northouse (2010) defined leadership as “a process whereby an individual influences a group of individuals to achieve a common goal” (p. 3).

Shared Leadership

In organizational psychology, leadership has traditionally been centered around one individual (i.e., the leader) and the relationship between this leader and his/her followers or subordinates. In sport, this leader would be the coach and the followers would be the athletes. Recently, however organizational psychology researchers (e.g., Pearce & Conger, 2003) have argued that leadership can be viewed as being shared among members of a group. Leadership in sport would then involve not only coaches but also athletes. Consequently, shared leadership is defined as a process of dynamic, interactive influence among individuals in groups to achieve established goals (Pearce & Conger, 2003). This shared view of leadership purports that social interactions and distribution of leadership throughout the group at different levels influences group members (Fletcher & Käufer, 2003).

Using this notion of shared leadership, Locke (2003) advanced The Integrated Model of Leadership (see Figure 1). Three assumptions were used when developing this integrated model. First, a real leader (e.g., coach) continues to exist who exerts power over subordinates (e.g., athletes). Second, these real leaders are also influenced by their subordinates. However, it should be noted that due to the hierarchal nature of shared leadership the upward influence of the subordinates on the leader will never be as strong

as the downward influence of the leader on subordinates. Third, subordinates are able to influence one another. Thus, the Integrated Model of Leadership combines a top down (coach influencing athlete), bottom up (athlete influencing coach), and shared leadership (athletes influencing one another) approach in hopes of creating the most effective team environment. While the concept of shared leadership intuitively makes sense, it has not been tested empirically in business or sport.

Model for the Study of Leadership in Sport

The most widely used model for the study of leadership in sport was advanced by Chelladurai (1978, 1993) entitled the Multidimensional Model of Leadership (see Figure 5). The majority of the research using this model has examined the leadership behaviours of coaches and has been recently used in the study of athlete leadership. The Multidimensional Model for Leadership is a linear model composed of antecedents, leadership behaviours, and consequences (Chelladurai, 1978, 1993). The antecedents within the model directly affect leader behaviours which influence consequences. These antecedents are divided into three categories, which consist of situational, leader, and member characteristics. Situational characteristics include organizational and group goals, task type, and social norms. Member characteristics include individual personalities, gender, and ability. The leader characteristics include the leader personality, expertise, gender, and experience.

Three components of leadership behaviours are represented in the throughputs of this model which include required, actual, and preferred leader behaviours (Chelladurai, 1978, 1993). Required leader behaviours are defined as behaviours required in a certain situation and are directly influenced by the antecedents of situational and member

characteristics. Also influenced by the antecedents of situational and member characteristics are preferred leader behaviours, which involves a group members' preference for instruction, guidance feedback, and social support. Finally, actual behaviours are behaviours exhibited by the coach and are mainly influenced by the antecedent of leader characteristics. The final component of the model is the consequences, which was originally specified as performance and satisfaction. However, the consequences are not limited to only these two outcomes. For example, athlete motivation and commitment (Andrew & Kent, 2007), and cohesion (Vincer & Loughhead, 2010) are examples of other outcome variables. The model also contains a feedback loop from the consequences to actual leader behaviour suggesting that a leader has the ability to adjust his/her behaviour.

Measurement of Leadership: The Leadership Scale for Sports

In order to examine the hypothesized relationships contained in the Multidimensional Model for Leadership (Chelladurai, 1978, 1993), Chelladurai and Saleh (1980) developed the Leadership Scale for Sports (LSS). This questionnaire contains 40 items that assesses five dimensions of leadership behaviours: Training and Instruction, Democratic Behaviour, Autocratic Behaviour, Social Support, and Positive Feedback. Training and Instruction examines a leader's behaviour that is aimed at improving member performance by emphasizing hard work and training. This dimension contains 13 items, and an example item is, "Sees to it that every team member is working to his/her capacity". Democratic Behaviour assesses the extent of participation in decision making held by group members in the team's goals, practice methods, and game tactics. This dimension is measured by nine items and an example item is, "Lets team members

decide on plays to be used in a game”. The third dimension, Autocratic Behaviour, examines the independence in decision making and expression of authority the leader exhibits to team members. This dimension is made up of five items and an example item is, “Refuses to compromise a point”. The fourth dimension of Social Support measures harmonious interpersonal relationships with team members, the concern for the welfare of others, and having a positive group environment. Social Support is comprised of eight items with an example item being, “Helps team members with personal problems”. The final dimension, Positive Feedback, examines the tendency for a leader to recognize, reward, and praise good performance of team members. Five items measure this dimension with an example item being, “Compliments a team member for his/her performance in front of the others”. All of the items from the LSS are measured on five point Likert scale ranging from 1 (*never*) to 5 (*always*) (Chelladurai, 1978, 1993).

To ensure that an instrument measures what it should be measuring, tests of validity are conducted. The most basic form of validity is content validity and it assesses the degree to which the items are representative of the construct. For the LSS for coaches, Chelladurai and Saleh (1980) provided content validity based on the factor interpretation as the five-factor solution representing the five dimensions of leadership, was found to be most meaningful. For the athlete leader version of the LSS, Loughhead and Hardy (2005) examined the content validity by adapting the wording of the items to ensure that they were appropriate for athlete leaders. Concurrent validity is examined by correlating the survey to other similar instruments. For the LSS for coaches, Cumming, Smith, and Smoll (2006) showed that the dimensions of the LSS and the dimensions of the Coaching Behaviour Assessment System (CBAS; Smith, Smoll, & Hunt, 1977) were correlated

with one another as hypothesized. Loughead and Hardy (2005) correlated the items of the athlete leader version of the LSS with the original version and found that the dimensions were correlated to one another as hypothesized. To ensure that a measurement is associated with other constructs it theoretically should be associated with, convergent validity is computed. Gardner, Shields, Bredemeier, and Bostrom (1996) examined the convergent validity of the LSS and found a positive relationship between task and social cohesion with Training and Instruction, Democratic Behaviour, Social Support, and Positive Feedback. Task and social cohesion were negatively related to Autocratic Behaviour. Similarly, Vincer and Loughead (2010) found that task (focus on achieving a group's goal or objective) and social (focus on developing relationships within a group) cohesion was positively related to Training and Instruction and Social Support, and negatively related to Autocratic Behaviour in athlete leaders. Democratic Behaviour was also found to positively relate to one dimension of cohesion, that being Attractions to the Group- Task. In terms of factorial validity of the LSS for coaches, Chelladurai and Saleh (1980) provided evidence of a 5-factor model. Likewise, Vincer and Loughead (2010) also showed that the LSS for athlete leaders demonstrated a 5-factor solution.

The reliability of a measure can be shown through a test of internal consistencies which compares items in a single test to one another. Each of the five dimensions of the LSS for coaches has also shown adequate internal consistency. For example, Loughead and Hardy (2005) found the following internal consistency values for coaches with the LSS: Autocratic Behaviour, $\alpha = .83$, Democratic Behaviour, $\alpha = .87$, Positive Feedback, $\alpha = .89$, Social Support, $\alpha = .89$, and Training and Instruction, $\alpha = .92$. Vincer and Loughead (2010) provided evidence that the athlete leader version was reliable with

values: Autocratic Behaviour, $\alpha = .74$, Democratic Behaviour, $\alpha = .79$, Positive Feedback, $\alpha = .84$, Social Support, $\alpha = .86$, and Training and Instruction, $\alpha = .88$.

Coaching

This section of the thesis will focus on the leadership behaviours provided by coaches. A coach will be defined, followed by a review on research examining coaching leadership behaviour will be explored.

Characteristics of a Coach

Coaches have an important role in sport by providing assistance and instruction to athletes to help improve performance (Martens, 1987). Hardy, Burke, and Crane (2005) have stated that the essence of coaching comes down to teaching and motivating athletes. Coaches need to be able to properly motivate their athletes and be able to communicate in a clear, honest, and direct manner. Weinberg and Gould (2007) explained that coaches must have a vision of what to strive for and must also provide day-to-day structure, motivation, and support to translate this vision into reality. Furthermore, a successful coach will ensure that an individual athlete's success helps achieve team success. In order to achieve this success, coaches build interpersonal relationships with team members and work through these relationships to provide direction, goals, and structure to their teams (Weinberg & Gould, 2007). Therefore, a coach must establish open lines of communication with team members to develop positive relationships and set clear goals and objectives.

Coaching Research Using the Leadership Scale for Sports

A large amount of research has been conducted examining the leadership behaviours of coaches in conjunction with various outcome variables using Chelladurai

and Saleh's (1980) LSS. To date, the majority of research using the LSS has primarily examined the outcomes of satisfaction, performance, role ambiguity, burnout, and cohesion.

Satisfaction. Research by Chelladurai, Imamura, Yamaguchi, Oinuma, and Miyauchi (1988) compared perceptions of coaching behaviours and athlete satisfaction in 100 Canadian and 115 Japanese male university athletes using the LSS. Regardless of ethnicity, athletes who perceived their coach to display high amounts of Training and Instruction, Social Support, Positive Feedback, and Democratic Behaviour were more satisfied with the leadership provided by the coach. In contrast, coaches who displayed lower amounts of Autocratic Behaviour leadership behaviour had athletes were more satisfied with their coach.

Similarly, Riemer and Chelladurai (1995) examined defensive and offensive football players' preferred and perceived leader behaviours and athlete satisfaction. The results showed that when perceptions of and preferred levels of Social Support were congruent, satisfaction levels were the highest, and when perceived and preferred Social Support were not congruent, satisfaction levels were the lowest. Results also revealed that both preferred and perceived amounts of Training and Instruction and Positive Feedback were significantly correlated with satisfaction.

More recently, Andrew (2009) examined coaching leadership behaviours and its relationship to satisfaction of 254 intercollegiate NCAA tennis players. Participants completed the 60 item Revised Leadership Scale for Sports (RLSS; Zhang, Jansen, & Mann, 1997), which includes the same five leader behaviours in the LSS with the addition of a sixth leadership behaviour entitled Situational Consideration. This added

dimension of Situational Consideration examines a leader's individualized attention to the team and its unique characteristics, such as team selection and setting appropriate goals. Results indicated that the congruency of Training and Instruction and Autocratic Behaviour are critical to athlete satisfaction. Specifically, satisfaction was influenced when perceptions of Training and Instruction and Autocratic Behaviour were congruent with preferred levels. It was suggested that a coach, when providing preferred levels of Autocratic Behaviour, has the ability to influence an athlete's satisfaction with: (a) their own task performance, (b) coaching behaviours targeted at the individual, which indirectly affects team development, (c) the amount of Training and Instruction provided by the coach, and (d) their team's performance (Andrew, 2009).

Performance. Høigarrd, Jones, and Peters (2008) presented 88 elite male Norwegian soccer players with one of two scenarios. The first scenario described a successful team (i.e., had won their first ten league games, and have been playing well) or an unsuccessful team (i.e., had lost their first ten league games, and have been playing poorly). Using the LSS, participants indicated which coaching behaviours they would prefer from their coach if they were an athlete in that particular scenario. Results indicated that Positive Feedback, Training and Instruction, and Democratic Behaviour were the most preferred behaviours of athletes regardless of scenario. Additionally, athletes in the unsuccessful scenario preferred more Training and Instruction, Positive Feedback, Democratic Behaviour and Social Support than athletes in the successful scenario group.

In a second study examining performance and leadership, Garland and Barry (1990) evaluated 272 football players' perceptions of coaching leadership behaviour

using the LSS. At season's end, coaches categorized their athletes into one of three levels of performance (i.e., regulars, substitutes, and survivors) based on established criteria. It was found that all five behaviours of the LSS predicted performance. Specifically, higher levels of performance were associated with athletes who perceived their coaches to exhibit more Social Support, Training and Instruction, Positive Feedback, and Democratic Behaviours, and less Autocratic Behaviour.

Role ambiguity. Beauchamp, Bray, Eys, and Carron (2005) studied the leadership behaviours of Training and Instruction and Positive Feedback in relation to the multidimensional construct of role ambiguity in team sports (i.e., lacrosse, rugby, water polo, soccer, basketball, volleyball, and field hockey). Role ambiguity is comprised of four dimensions, namely: scope of responsibilities, role behaviours, role evaluation, and role consequences (Beauchamp, Bray, Eys, & Carron, 2002). These two domains of leadership were specifically examined by the authors as they are thought to relate most directly to role ambiguity. One hundred and fifty nine athletes self-classified themselves as either a nonstarter or starter on their current team, assessed their coach's leadership behaviours, and evaluated their personal role ambiguity. Results indicated that Training and Instruction and Positive Feedback in nonstarters correlated with offensive and defensive role ambiguity perceptions, whereas none of the role ambiguity dimensions were correlated with either dimension of leadership behaviours in starters. Regressions were completed to analyze the nonstarter's data, with higher levels of Training and Instruction emerging as the only predictor of offensive and defensive role consequence ambiguity and offensive role evaluation ambiguity.

Burnout. Burnout is another variable that is believed to be influenced by leader behaviours and has been defined by Maslach and Jackson (1981) as a psychological syndrome distinguished by depersonalization, emotional exhaustion, and reduced personal accomplishment. Price and Weiss (2000) examined how perceived leader behaviours influenced burnout through the three subscales of emotional/physical burnout, sport devaluation, and reduced athletic accomplishment in 193 female high school soccer players. The results indicated that participants who perceived coaches to provide greater levels Training and Instruction, Social Support, Positive Feedback, and Democratic Behaviour, and less Autocratic Behaviour reported lower levels of burnout.

Cohesion. Finally, research has been conducted examining the relationship between cohesion and leadership behaviours. Cohesion has been defined by Carron, Brawley, and Widmeyer (1998) as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member needs” (p. 213). Cohesion can be divided into two categories: a member’s personal attraction to the group (i.e., Individual Attractions to the Group, ATG), and a member’s perception of the group as a total (i.e., Group Integration, GI) (Carron, Widmeyer, & Brawley, 1985). These categories of cohesion can further be divided as the result of two perceptions of cohesion: task and social. A task focus is the result of interest in achieving group goals and objectives, whereas a focus on social cohesion is concerned with relationships within the team. Early research by Westre and Weiss (1991) examined cohesion and leadership behaviours within 163 high school football athletes. Athletes who perceived their coach to exhibit higher levels of Social

Support, Training and Instruction, and Positive Behaviour had greater perceptions of task cohesion.

Gardner et al. (1996) examined perceptions of cohesion and perceived coaching behaviours by collapsing the four dimensions of cohesion into two categories (i.e., task and social) in 307 baseball and softball athletes. Results revealed that high task cohesion was positively related to Training and Instruction, Democratic Behaviour, Social Support, and Positive Feedback, and was negatively related to Autocratic Behaviour. Social cohesion was found to positively correlate to Training and Instruction and Social Support.

Recently, Ramzaninezhad and Keshtan (2009) examined the relationship between a coach's behaviour and cohesion in 264 athletes from 12 Iranian professional football leagues. Higher levels of task and social cohesion were both found to be positively correlated with Training and Instruction, Social Support, Democratic Behaviour, and Positive Feedback, and negatively correlated with Autocratic Behaviour. Additionally, differences between successful, less successful and unsuccessful teams coach's behaviour were examined, revealing that successful coaches exhibited more Democratic Behaviour and Social Support than less successful and unsuccessful teams, and these successful teams were more cohesive than teams classified as less successful and unsuccessful.

In summary, it has been shown through previous research that leadership behaviour is related to a variety of outcomes in the sport context. Yet a majority of this research has focused solely on the leadership behaviours of the coach. This is understandable, as previously stated, the coach plays a vital role in the development of athletes and has many responsibilities within the team. However, recently another source

of leadership has emerged within teams and has gained attention in research, namely the athlete leaders.

Athlete Leadership

This section of the thesis will review literature pertaining to athlete leadership. Athlete leadership will be defined, followed by a review of research examining the quantity of athlete leaders. Finally, an examination of literature investigating the behaviours of athlete leaders will be provided.

Defining Athlete Leadership

In addition to coaches as a source of leadership within teams, recently another source of leadership stemming from the athletes has been identified, which has been labeled athlete leadership. This construct has been defined as “an athlete occupying a formal or informal role within a team, who influences team members to achieve a common goal” (Loughead, Hardy, & Eys, 2006, p. 144). Within this definition, athlete leaders can occupy one of two leadership roles, either as a formal athlete leader or an informal athlete leader. A formal athlete leader is an athlete that has been prescribed to that position by the organization or the team, such as a captain, co-captain, or assistant captain. In contrast, an informal athlete leader is an athlete that has not been designated by the team but rather has acquired his/her role through interactions with teammates (e.g., a veteran player).

Athlete Leadership Research Using the Leadership Scale for Sports

Though athlete leadership research remains in its infancy, studies examining this construct is continually being explored (Bakker, 2010; Dupuis, Bloom & Loughead, 2006; Eys, Loughead & Hardy, 2007; Hardy, Eys, & Loughead, 2008; Loughead &

Hardy, 2005; Loughead et al., 2006; Paradis & Loughead, 2009; Spalding, 2010; Vincer & Loughead, 2010). Research examining athlete leadership has focused on both the quantity of athlete leaders present on a sport team, as well as the behaviours displayed by these athlete leaders. It is through a combination of these two types of research that the influence and importance of athlete leadership has begun to be understood.

Quantity of athlete leaders. Early research examining athlete leaders focused on the number of athlete leaders present on a sport team. In early research examining the quantity of athlete leaders, Loughead and Hardy (2005) had athletes indicate which of their peers were providing leadership within the team. Participants included 238 athletes involved in independent (e.g., track and field) and interdependent (e.g., volleyball) team sports. Results indicated that 32% of athletes ($n = 77$) believed that the captain was the only source of leadership within their team, whereas 2.5% of athletes ($n = 6$) felt only players other than the captain provided leadership. However, the majority of athletes, 65.1% ($n = 155$), perceived that both team captains and other teammates provided leadership within the team. Overall, athletes believed that just over one-quarter (27%) of athletes within a team served as a peer leader.

Loughead et al. (2006) further examined athlete leaders fulfilling task, social, and external leadership roles. Kogler Hill (2001) described a task leader as those who assist the team in achieving goals, ensure teammates understand their responsibilities, and provide instruction when necessary. Social leaders were identified as contributing to team chemistry, and ensuring that all team members are welcomed, supported, and included within the group. Finally, external leaders represent and promote the team within the community and act as a voice for the team in meetings with coaches. Two hundred and

fifty eight athletes completed the athlete leader version of the LSS twice, once at the beginning and once near the end of the season. In addition, athletes were asked to list teammates who provided leadership across the three leadership functions (i.e., task, social, and external). When analyzing the data, a distinction was made between two classifications of athlete leaders, those labeled as either (1) team leaders (athletes who had at least half of their team members endorse them as a leader) or (2) peer leaders (athletes who had at least two teammates list them as a leader). Results for team leaders indicated that 15% of athletes were seen as a task leader, 11.5% as a social leader, and 9% as an external leader (Loughead et al., 2006). Representing peer leadership, 35.5% of athletes were believed to be a task leader, 46% to be a social leader, and 30% to hold an external leadership role. Interestingly, the majority of athletes labeled as a team leader also held a formal leadership position on the team, whereas athletes labeled as peer leaders often occupied an informal leadership position on the team. Furthermore, the majority of athlete leaders listed by teammates were starters as well as veteran players in their third year with the team. Finally, results found that those athletes who held a leadership role tended to remain in that role throughout the season, indicating that leadership within teams is stable.

Expanding on the research conducted by Loughead and et al. (2006), Eys et al. (2007) examined the three functions of leadership (i.e., task, social, and external) at two separate time periods in a varsity athlete population. However, Eys et al. (2007) observed the dispersion of athlete leader functions in relation to satisfaction. Two hundred and eighteen athletes participating in interactive team sports (e.g., soccer, lacrosse, rugby) identified athlete leaders on their team who they believed to fulfill a task,

social, and external role. Participants then assessed their satisfaction with Individual Performance, Team Performance, Team Task Contribution, and Team Integration. Results revealed that leadership remained stable throughout the season with athletes perceiving 17.5%, 17.7%, and 13.2% of their peers to hold a task, social, and external leadership role respectively. In relation to satisfaction, when athletes perceived an equal number of athletes leaders across the three leadership functions (i.e., either a relatively high, average, or low number of leaders across all three functions) they indicated greater satisfaction. Therefore, the authors suggested that when an equal number of athlete leaders are perceived to occupy each of the three functions, regardless of the number (i.e., high, average, or low), an athlete's satisfaction with team performance and team integration was higher than individuals who perceived an unequal number of athlete leaders fulfilling the three functions.

Recently, Hardy et al. (2008) examined communication and its influence on the dispersion of athlete leaders and the cohesion within a team. Similar to Loughead et al. (2006) and Eys et al. (2007), Hardy et al. (2008) had 254 Canadian athletes list the team members they believed to fulfill task, social, and external leadership roles on their current team. Results revealed that 18% of athletes fulfilled both task and social leadership functions respectively, whereas 13% of athletes held an external function of leadership. Furthermore, it was found that communication negatively mediated the relationship between task leadership dispersion and task cohesion, specifically the Group Integrated-Task relationship. Overall, lower perceptions of cohesion and communication were correlated when there were higher amounts of task athlete leaders. The authors suggested

that in order for a team to have higher perceptions of cohesion, teams should have a small group of task leaders.

Behaviours of athlete leaders. In early research investigating athlete leadership, Loughead and Hardy (2005) examined 238 varsity, club, provincial and national level athletes competing on independent and interdependent sports. Participants examined the leadership behaviours that were perceived to be provided by their coach and their athlete leaders. Results revealed that athlete leaders and coaches differed in the leadership behaviours they provided. Specifically, coaches provided more Training and Instruction and Autocratic Behaviour than athlete leaders, whereas athlete leaders exhibited higher amounts of Social Support, Positive Feedback, and Democratic Behaviour than coaches.

Given the known importance of athlete leaders on a team and their many functions and behaviours, Dupuis et al. (2006) qualitatively explored athlete leadership. Six former successful male ice hockey team captains were interviewed to further understand which leadership behaviours of formal leaders they believed to be most important. As a result, three main categories emerged, interpersonal characteristics and experiences, verbal interactions, and task behaviours. Interpersonal characteristics and experiences included personal qualities, skills, and evolution of a team captain, as well as staying positive and respectful, and controlling emotions. Verbal communication involved how a captain interacts with others, including coaches, teammates, and other team leaders. Finally, task behaviours entailed completing administrative duties, dealing with team issues, and enhancing team unity. Team captains also stressed the importance of setting proper examples for teammates on and off the ice.

Holmes, McNeil, Adorna, and Procaccino (2008) asked 79 student athletes to nominate three players they believed to be a leader on the field and three players they believed to be a leader off the field, and to explain why these specific players were nominated in each category. However, in contrast to the aforementioned studies (Eys et al., 2007; Hardy et al., 2008; Loughhead et al., 2006), participants completed the 60-item RLSS. When comparing the leader behaviours of male and female participants, results revealed only a significant effect between gender and Autocratic Behaviour. Specifically, males preferred more Autocratic Behaviour from their athlete leaders than did females. In addition, when listing why athletes were nominated, males indicated that working hard (30.1%), leading by example (21.9%), performing (16.4%), and caring for the team (9.6%) were qualities of athlete leaders on the field. In contrast, women nominated leaders on the field for working hard (29.2%), being vocal (18.3%), leading by example (13.3%), and encouraging the team (11.7%). In terms of why athletes were nominated for being leaders off the field, males believed that these leaders had specific personality traits (21.6%), were caring about the team (19.6%), were role models (17.6%), and possessed a specific lifestyle (9.8%). On the other hand, females were believed to be a leader off the field due to certain personality traits (29.7%), being a great student (20.8%), caring about the team (16.8%), and being vocal (9.9%).

Vincer and Loughhead (2010) examined the relationship between athlete leader behaviours and cohesion. Participants were 315 varsity athletes who assessed the athlete leadership behaviours and perceptions of cohesion for their current team. Results revealed that all four dimension of cohesion (ATG-T, ATG-S, GI-T, and GI-S) were positively related to Training and Instruction and Social Support, whereas all four

dimensions of cohesion were negatively related to Autocratic Behaviour. Furthermore, the athlete leadership behaviour of Democratic Behaviour was found to be positively related to one dimension of cohesion, ATG-T.

Athlete leadership has been further studied by Spalding (2010) who examined athlete leadership in relation to cohesion and performance, and whether athlete leadership behaviours moderated the cohesion-performance relationship. One hundred and ninety varsity athletes evaluated their perceptions of cohesion, behaviours of their formal and informal athlete leaders, and performance. Performance was measured along two dimensions, Performance Commitment referred to the degree to which team members were persistent and motivated to perform, and Performance Achievement evaluated a team member's feeling of team productivity. Overall, a positive relationship was found amongst the three variables analyzed, except for the athlete leader behaviour of Autocratic Behaviour, which was found to be negatively related to cohesion and performance. In addition, Training and Instruction was the only athlete leader behaviour found to be directly related to performance. Athlete leader behaviours were then examined in relation to all four dimensions of cohesion. For formal athlete leaders, the results indicated that behaviours of Democratic Behaviour, Positive Feedback, Social Support, and Training and Instruction were significantly related to performance. Whereas for informal athlete leaders, Social Support and Training and Instruction were the only behaviours significantly related to cohesion. Finally, when examining athlete leadership as a moderator of the cohesion-performance relationship, two moderating effects were uncovered in relation to informal athlete leaders. More specifically, the informal athlete leader behaviours of Social Support moderated the GI-T – Performance Commitment

relationship, and Training and Instruction moderated the cohesion dimensions of AGT-S – Performance Commitment relationship.

Another variable that has been studied in relation to athlete leadership is collective efficacy. Collective efficacy is defined as a team's "shared belief in its conjoint capabilities to organize and execute the courses of actions required to produce given levels of attainments" (Bandura, 1997, p. 477). Bakker (2010) examined the relationship among athlete leadership, cohesion, and collective efficacy in 207 male junior ice hockey players. In respects to the athlete leadership-cohesion relationship, it was found that specific athlete leader behaviours were related to cohesion. Results revealed that the formal and informal athlete leader behaviours of Training and Instruction, Social Support, and Positive Feedback were positively related to cohesion. In addition, the informal athlete leader behaviour of Democratic Behaviour was positively related to cohesion, while Autocratic Behaviour was negatively related to cohesion. Results indicated that cohesion mediated the relationship between athlete leadership and collective efficacy. Particularly, for formal athlete leaders, the dimensions of ATG-T, GI-T, and GI-S cohesion mediated the Positive Feedback-collective efficacy relationship. In comparison, when analyzing behaviours of informal athlete leaders, the Democratic Behaviour-collective efficacy and the Positive Feedback-collective efficacy relationships were mediated by GI-T and ATG-T, respectively.

Gender

This section of the thesis will review literature examining gender in conjunction with leadership behaviours. The construct of gender in the domain of sport will be

discussed, followed by a discussion of gender differences found to exist in other sport psychology constructs.

Gender and Coaching

Investigating the leadership behaviours of coaches is crucial as a coach has the ability to influence an athlete's performance and psychological well-being (Millard, 1996). Although a great deal of research has examined leadership behaviours of coaches, limited research has examined the leadership behaviour of male and female coaches separately (Millard, 1996), and if so results were often equivocal and inconsistent.

Millard (1996) assessed 58 male and female high school soccer coaches' behaviours utilizing the Coaching Behaviour Assessment System (CBAS; Smith et al., 1977). The CBAS is composed of 12 dimensions used to code observed coach behaviours. Only ten of the 12 behaviours were used in Millard's (1996) study as the dimensions of Non-reinforcement and Ignoring Mistakes have been shown to display low reliability (Smith, Zane, Smoll, & Coppel, 1983). The 10 coaching behaviours included: Reinforcement, Mistake-contingent Encouragement, Mistake-contingent Technical Instruction, Punishment, Punitive Mistake-contingent Technical Instruction, Keeping Control, General Technical Instruction, General Encouragement, Organization, and General Communication. Results revealed that male and female coaches differed significantly in some of their coaching behaviours. Specifically, male coaches provided significantly more General Technical Instruction and engaged significantly more in Keeping Control behaviours than female coaches, while female coaches provided significantly more General Encouragement to their athletes than male coaches. However, it is important to note that all the female coaches coached female athletes. This does not

allow a direct comparison to be made between the behaviours of male and females coaches due to the fact that the behaviours of females coaches towards male athletes was not studied.

Jambor and Zhang (1997) examined leadership behaviours and gender among male and female coaches at the junior high school, high school, and college levels. One hundred and sixty two coaches completed the RLSS. Each coaching behaviour was examined individually, with results revealing only one behaviour differing significantly between male and female coaches. Particularly, Social Support was the only coaching behaviour found to be significantly different between genders, with female coaches scoring higher on this behaviour than male coaches.

Mondello and Janelle (2001) had 37 coaches complete the LSS evaluating their own leadership behaviours. However, instead of analyzing coaches' leadership behaviours based on their gender, Mondello and Janelle (2001) examined leadership behaviour based on the gender of the athletes they coached. The only significant main effect was found for the coaching behaviour of Positive Feedback. In particular, coaches of male teams reported providing significantly greater amounts of Positive Feedback to their athletes than did coaches of female teams.

Coaching behaviours were then evaluated by athletes in Sherman, Fuller, and Speed (2000). The purpose of their study was to examine gender differences and similarities in coaching preferences. Using a sample of 170 male and 142 female Australian football, basketball, and netball athletes aged 18-35 years, the athletes completed the LSS. In particular, the athletes were asked to indicate which leadership behaviours they preferred to receive from their coach. Results indicated that male and

female athletes' preference for certain coaching behaviours were similar. Specifically, both male and female athletes responded in the same preference order in that they preferred to receive less Social Support and Autocratic Behaviour from their coach, and preferred to receive more Positive Feedback, Training and Instruction, and Democratic Behaviour from their coach.

Employing a sample of 408 varsity athletes, Beam, Serwatka, and Wilson (2004) examined preferred coaching leadership behaviours of male and female athletes. The participants completed the RLSS and findings revealed that male athletes preferred significantly more Autocratic Behaviour and Social Support from their coaches than female athletes. In addition, female athletes preferred significantly more Situational Consideration and Training and Instruction from their coaches than male athletes. These findings directly contrast those of Sherman et al. (2000). A possible reason for this discrepancy is the use of different inventories to measure coaching behaviour (LSS vs. RLSS). Also, participants in the two studies were from two different countries (Australia vs. USA) which may be culturally different and lead to different leadership preferences.

In the research described thus far, athlete gender has not been examined simultaneously with the coach gender. Thus, semi-structured interviews were conducted with elite female soccer players to understand past experiences with male and female coaches (Fastings & Pfister, 2000). Thirty eight female athletes playing on seven teams representing Germany, Norway, Sweden, and the United States of America took part in the interview process. Results revealed that athletes were more satisfied with female coaches than they were with male coaches. Female coaches were often preferred by

athletes who stated that they enjoyed the female style of communication, described as understanding and caring, more than a male's style of communication.

To expand on Fastings and Pfister's (2000) results, 12 American female athletes participating in the sports of basketball, cross country, golf, soccer, softball, and track and field were interviewed by Frey, Czech, Kent, and Johnson (2006). These female athletes perceived female coaches to provide more positive feedback and encouragement to athletes than male coaches, but perceived male coaches to be more organized and structured than female coaches.

Athletes' perceptions of coaches in relation to gender have been examined using hypothetical male and female head coaches (e.g., Frankl & Babbitt, 1998; Weinberg, Reveles, & Jackson, 1984). In both these studies a hypothetical situation was presented to athletes in the form of a script introducing a new coach. Two versions of the script were created, one with a new male coach and the other with a new female coach. Other than this gender change, identical scripts were provided concerning background information and qualifications of coaches, including coaching experience, education, and playing experience. Participants then completed an "Attitudinal Questionnaire" to measure the attitudes and impressions towards the new coach through the completion of 11 items. The participants in the Weinberg et al. (1984) study consisted of 42 male athletes coached by males and 43 female athletes coached by females competing at the college, high school, and junior high school varsity basketball levels. Athletes were randomly assigned to respond to the hypothetical male or female coach script. Results revealed that male and female athletes held significantly different perceptions of female coaches, but no differences in perceptions of male coaches. Specifically, male athletes displayed more

negative attitudes toward female coaches than female athletes. However, Weinberg et al. (1984) did not explore the attitudes of athletes coached by an individual of an opposite gender (i.e., a gender mismatch relationship). Frankl and Babbitt (1998) completed a follow-up study examining track and field athletes' perceptions of a hypothetical new coach. Two hundred and sixteen (112 male and 104 female) high school athletes participated in this study. Once again two scripts were distributed to participants, with the single difference being the gender of the labeled coach. Participants were first divided into two groups based on the gender of the participants, and these two groups were next split into groups based on the gender of the hypothetical coach evaluated. These four groups were subsequently divided based on the gender of the participant's actual coach, resulting in eight separate groups (i.e., gender of participant X gender of hypothetical coach X gender of actual coach). Results revealed that athletes coached by a male responded more positively to a new coach than athletes coached by a female. Specifically, both male and female athletes coached by a male had more positive attitudes towards the new hypothetical coach than participants coached by a female.

Gender Differences and Athletes

To date, no research has examined whether athlete leader behaviours differ due to the gender of the athlete, or due to the gender of their coach. However, differences between male and female athletes have been found in a small number of other sport psychology concepts. Gender differences found within sport concerning cohesion and coaching effectiveness will be further discussed in this section

Cohesion. In a meta-analysis performed by Carron, Colman, Wheeler, and Stevens (2002), the cohesion-performance relationship was examined in sport. Overall, a

moderate positive relationship ($ES = .66$) was found to exist between cohesion and performance. When comparing this relationship between male and female athletes a significant difference was found for gender. Specifically, a large cohesion-performance relationship was found for female athletes ($ES = .95$), compared to a moderate cohesion-performance relationship for male athletes ($ES = .56$). The difference between these two effect sizes were statistically significant.

Effectiveness. Examining athlete's gender concurrently with coach's gender, Kavassanu, Jutkiewicz, Vincent, and Ring (2008) examined coaching effectiveness. Two hundred and ninety one athletes participating on team (e.g., soccer, rugby, volleyball) and individual (e.g., archery, fencing, trampoline) sports evaluated their coach's effectiveness. A definition of coaching effectiveness was provided to participants which described the construct as "the extent to which coaches can implement their knowledge and skills to positively affect and improve the learning and performance of their athletes" (Kavassanu et al., 2008, p. 389). Coaching effectiveness was then measured through the use of a modified version of the Coaching Efficacy Scale (Feltz, Chase, Moritz, & Sullivan, 1999). Results revealed that when athletes were coached by a coach of the opposite gender (a gender mismatch; e.g., female athlete coached by a male coach) coaches were perceived to be less effective in motivating and building character in his/her athletes compared to athletes coached by a coach of the same gender (a gender match; e.g., female athlete coached by a female coach). When interpreting these results, the authors noted that is important to recognize that the majority of participants were female athletes coached by a male.

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Figure Captions

Figure 1. Integrated Model of Leadership

Figure 5. Multidimensional Model for Leadership

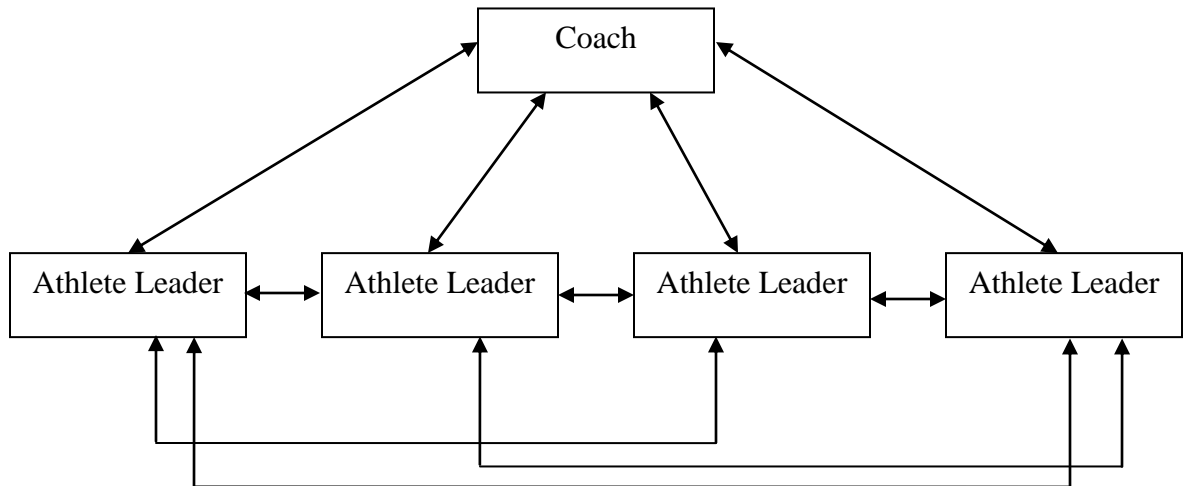


Figure 1. Adapted from “Leadership: Starting at the top” by E. A. Locke, 2003. In C. L. Pearce and J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 271-284). Thousand Oaks, California: Sage Publications, Inc.

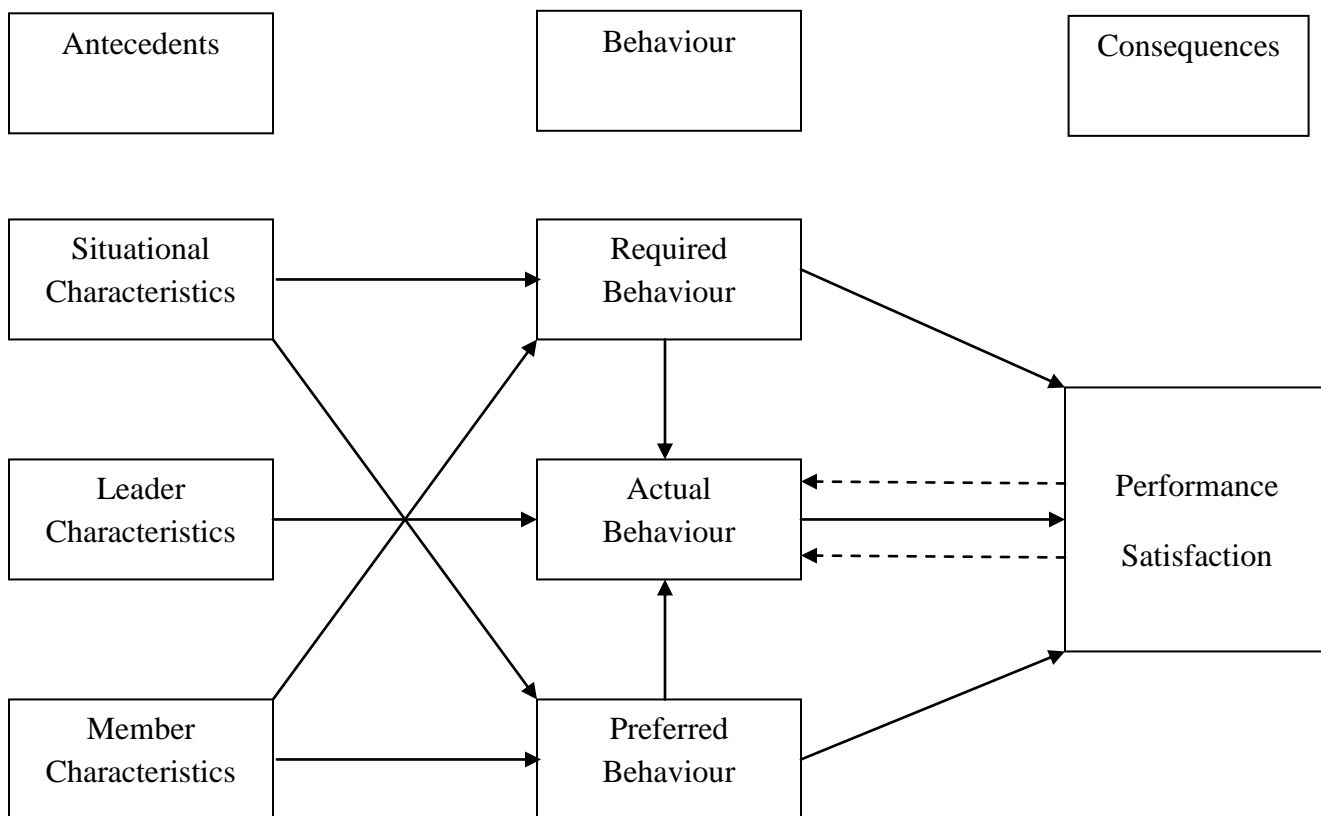


Figure 5. Adapted from “Leadership” by P. Chelladurai, 1993, In R. N. Singer, M. Murphy, and L. K. Tennant (Eds.), *Handbook on research on sport psychology* (pp. 648). New York: McMillan.

Appendix A

Tell me a little about yourself:

Age: _____ yrs

Gender: _____

Current sport (e.g., volleyball, hockey): _____

Number of years with current team: _____

Position on team (e.g., center, point guard): _____

Are you a starter? Yes No

Gender of your head coach: _____

Read the description below and select **ONLY** if it applies to you. If it doesn't, go on to the next section.

Formal Leader

An athlete that is selected by the team or coach to be in a leadership position. Such as captain, co-captain or assistant captain

Informal Leader

Established through interactions with team members, not formally appointed by coach or team

Appendix B

Leadership Scale for Sports (LSS; Chelladurai & Saleh, 1980)

Using the following scale, please circle a number from EACH scale from 1 to 5 to indicate your level of agreement with each of the statements regarding YOURSELF and your COACH on your team.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Always
	25% of the time	50% of the time	75% of the time	
On my team, I...			On my team, my coach...	

1. See(s) to it that every team member is working to his/her capacity.
1 2 3 4 5 1 2 3 4 5
2. Ask(s) for the opinion of team members on strategies for specific competitions.
1 2 3 4 5 1 2 3 4 5
3. Work(s) relatively independent of other team members.
1 2 3 4 5 1 2 3 4 5
4. Help(s) team members with their personal problems.
1 2 3 4 5 1 2 3 4 5
5. Compliment(s) a team member for his/her performance in front of others.
1 2 3 4 5 1 2 3 4 5
6. Explain(s) to team members the techniques and tactics of the sport.
1 2 3 4 5 1 2 3 4 5
7. Tell(s) a team member when he/she does a particularly good job.
1 2 3 4 5 1 2 3 4 5
8. Get(s) team members approval on important matters before going ahead.
1 2 3 4 5 1 2 3 4 5
9. See(s) that team member is rewarded for a good performance.
1 2 3 4 5 1 2 3 4 5
10. Pay(s) attention to correcting team members' mistakes.
1 2 3 4 5 1 2 3 4 5
11. Help(s) team members settle their conflicts.
1 2 3 4 5 1 2 3 4 5
12. Do(es) not explain my/their action(s). 1 2 3 4 5 1 2 3 4 5

....continue on next page

1	2	3	4	5
Never	Seldom	Occasionally	Often	Always
	25% of the time	50% of the time	75% of the time	
		On my team, I...	On my team, my coach	

13. Let(s) fellow team members share in decision making.
 1 2 3 4 5 1 2 3 4 5
14. Make(s) sure that team members role on the team are understood.
 1 2 3 4 5 1 2 3 4 5
15. Look(s) out for the personal welfare of team members.
 1 2 3 4 5 1 2 3 4 5
16. Express(es) appreciation when a team member performs well.
 1 2 3 4 5 1 2 3 4 5
17. Instruct(s) team members individually in the skills of the sport.
 1 2 3 4 5 1 2 3 4 5
18. Encourage(s) team members to make suggestions for ways of conducting practices.
 1 2 3 4 5 1 2 3 4 5
19. Figure(s) ahead on what should be done.
 1 2 3 4 5 1 2 3 4 5
20. Refuse(s) to compromise a point. 1 2 3 4 5 1 2 3 4 5
21. Do(es) favors for team members. 1 2 3 4 5 1 2 3 4 5
22. Explain(s) to team members what they should and what they should not do.
 1 2 3 4 5 1 2 3 4 5
23. Let(s) team members share in discussion about goals for the team as a whole
 (e.g., the number of wins over the following month).
 1 2 3 4 5 1 2 3 4 5
24. Expect(s) team members to carry out their assignment to the last detail.
 1 2 3 4 5 1 2 3 4 5
25. Keep(s) to himself/herself/themselves.
 1 2 3 4 5 1 2 3 4 5
26. Point(s) out team members' strengths and weaknesses.
 1 2 3 4 5 1 2 3 4 5

....continue on next page

1	2	3	4	5
Never	Seldom	Occasionally	Often	Always
	25% of the time	50% of the time	75% of the time	
		On my team, I...		On my team, my coach...

27. Let(s) team members try their own way even if they make mistakes.
1 2 3 4 5 1 2 3 4 5
28. Express(es) care for other team members.
1 2 3 4 5 1 2 3 4 5
29. Give(s) specific instructions to team members as to what they should do in every situation.
1 2 3 4 5 1 2 3 4 5
30. Encourage(s) team members to confide in him/her/them.
1 2 3 4 5 1 2 3 4 5
31. Ask(s) for the opinion of team members on important team matters.
1 2 3 4 5 1 2 3 4 5
32. See(s) to it that the efforts are coordinated.
1 2 3 4 5 1 2 3 4 5
33. Encourage(s) team members to confide in him/her/them.
1 2 3 4 5 1 2 3 4 5
34. Let(s) team members work at their own speed.
1 2 3 4 5 1 2 3 4 5
35. Speak(s) in a manner not to be questioned.
1 2 3 4 5 1 2 3 4 5
36. Explain(s) how team members contributions fits into the total picture.
1 2 3 4 5 1 2 3 4 5
37. Invite(s) team members to his/her/their home.
1 2 3 4 5 1 2 3 4 5
38. Let(s) team members decide on the plays to be used in a game.
1 2 3 4 5 1 2 3 4 5
39. Specify(s) in detail what is expected of team members.
1 2 3 4 5 1 2 3 4 5
40. Give(s) credit when credit is due.
1 2 3 4 5 1 2 3 4 5

Appendix C

Recruitment Script for Coaches

Hi _____,

My name is Shannon Gesualdo and I am currently Masters student at the University of Windsor in the Faculty of Human Kinetics. My area of research involves leadership within sport teams and we were hoping we could set up a time before or after one of your practices allowing us to speak with the athletes on your team to participate in our study. If they choose to participate in our study, they will fill out a questionnaire package which will take approximately 15 minutes to complete. They will also have the opportunity to enter into a draw to win a gift certificate at a local sporting goods store.

Your assistance is greatly appreciated.

Take care,

Shannon Gesualdo

Appendix D

Recruitment Script for Athletes

Hi,

My name is Shannon and I am a Masters students at the University of Windsor. I am completing a research project looking at leadership within the team environment. The questionnaire takes approximately 15 minutes to complete and your participation is voluntary. All information obtained will be confidential and anonymous. Responses should be independently answered. When completed place package back into envelope. If you choose not to participate, please place the unanswered package back into the envelope. The last page of the package is a ballot to enter a draw to win a gift certificate at a local sporting goods store, please detach and submit it separately in this other envelop.

Thanks in advance for your participation

Appendix E

LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH

An Examination of Athlete Leadership on the Team Environment

You are asked to participate in a research study conducted by Shannon Gesualdo (Masters Student) under the direction of Dr. Todd Loughead (Faculty), from the department of Kinesiology at the University of Windsor. This research is being conducted as fulfilment of the requirements for an independent study course for credit towards a Masters Degree in Human Kinetics

If you have any questions or concerns about the research, please feel to contact either Ms. Shannon Gesualdo at 519-253-3000 ext. 4273 or gesuald@uwindsor.ca, or Dr. Todd Loughead at 519-253-3000 ext. 2450 or loughead@uwindsor.ca.

PURPOSE OF THE STUDY

To examine the influence of athlete leadership on the team environment.

PROCEDURES

If you volunteer to participate in this study, you will be asked to complete a survey/questionnaire that may take up to 15 minutes to complete.

POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable psychological or physical risks or discomforts associated with participation in this study.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The information gained from this study will help advance knowledge in the field of sport psychology. The results will help to better understand how athlete leaders influence member behaviours and perceptions of cohesion. This knowledge can be used by sport psychology consultants to enhance the development of athlete leaders.

PAYMENT FOR PARTICIPATION

You will not be compensated for your participation in this study. However, if you chose, you can enter your name into a draw for a \$50 Gift Certificate to Sportchek.

CONFIDENTIALITY

Responses to the questionnaires will remain anonymous while the information from the ballots will remain confidential. All data will be kept in a locked cabinet which will only be accessible by the primary investigators. Data will be kept secured for five years when it will then be destroyed. Although we are not asking for your name as the responses are anonymous, there may be some information collected by which one might be able to identify you.

PARTICIPATION AND WITHDRAWAL

Participation in this study is voluntary. You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time while you are filling out the surveys. However, once you have handed in the completed survey, this will be accepted as your consent to participate and it is not possible to withdraw because the surveys are anonymous, hence one cannot withdraw after submitting the questionnaire package. You may also refuse to answer any questions and still remain in the study.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

The results will be posted at the University of Windsor's Research Ethics Board website by May 2011 (<http://www.uwindsor.ca/reb>). If you have any additional concerns or questions, you can call the investigators at the numbers above.

SUBSEQUENT USE OF DATA

This data may be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

Signature of Investigator

Date

VITA AUCTORIS

NAME: Shannon Gesualdo

PLACE OF BIRTH: Scarborough, Ontario, Canada

YEAR OF BIRTH: 1987

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2009-2011, M.H.K.

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