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Relationship between perceived leadership qualities of the coaches of the Major Indoor Lacrosse League teams and athletes' perceived team climate

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RELATIONSHIP BETWEEN PERCEIVED LEADERSHIP
QUALITIES OF THE COACHES OF THE MAJOR
INDOOR LACROSSE LEAGUE TEAMS
AND ATHLETES' PERCEIVED
TEAM CLIMATE

by

Johnny Mouradian

An Abstract

of a thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Exercise
and Sport Sciences at
Ithaca College

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Thesis Advisor: Dr. A. Craig Fisher

ABSTRACT

This study investigated the relationship between perceived leadership qualities of the coaches of the Major Indoor Lacrosse League (MILL) teams and athletes' perceived team climate. Male lacrosse players ($N = 67$) completed the Leadership Scale for Sports (LSS), comprising the subscales training and instruction (TRINST), democratic behaviour (DEM), autocratic behaviour (AUTO), social support behaviour (SOCS), and positive feedback behaviour (REW). Subjects also completed the Group Environment Scale (GES), which assesses levels of anger and aggression (AA), cohesion (C), expressiveness (EX), independence (IND), innovation (INN), leader control (LC), leader support (LS), order and organization (OO), self-discovery (SD), and task orientation (TO). Descriptive statistics were calculated for the GES revealing moderately high mean scores for cohesion (C), leader support (LS), task orientation (TO), order and organization (OO), independence (IND), expressiveness (EX), and leader control (LC). Innovation (INN) and self-discovery (SD) were moderately low. LSS descriptive statistics revealed moderately high mean scores for rewards (REW) and training and instruction (TRINST). Autocratic (AUTO), democratic (DEM), and social support behaviours

(SOCS) revealed moderate levels.

Pearson product-moment correlation coefficients revealed moderate values between leader control (LC) and training and instruction (TRINST), leader control (LC) and rewards (REW), order and organization (OO) and democratic (DEM), order and organization (OO) and training and instruction (TRINST), and order and organization (OO) and rewards (REW). Canonical correlation analysis revealed one significant root and the following profile: low training and instruction with moderately low autocratic behaviours predicted low order and organization, low anger and aggression, and high expressiveness.

The above profile suggests coaching behaviours lacking an emphasis on hard work, strenuous training, and instruction in skills, techniques, and tactics tend to lack formality and are less explicit with group rules and sanctions. Independence in decision-making and personal authoritative leadership behaviours were low, and freedom of action and expressions of feelings by the athletes was allowed. It was concluded that training and instruction plays an important role in developing a positive team climate.

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TEAM CLIMATE

A Thesis Presented to the Faculty of
Graduate Program in Exercise
and Sport Sciences
Ithaca College

In Partial Fulfilment of the
Requirements for the Degree
Master of Science

by
Johnny Mouradian

Ithaca College
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CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

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for the degree of Master of Science in Exercise and
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DEDICATION

This thesis is dedicated to Russ Cline and Chris Fritz, the founders of the MILL, and their staff, the general managers, coaches, players, team staff, and referees committed to advancing professional lacrosse to the next level.

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Chapter 1

INTRODUCTION

Leadership is viewed as a behavioural process that influences individuals and groups to work towards accomplishing set goals (Barrow, 1977). The coach is the facilitator during the goal setting process, guiding the athletes along the appropriate path. Many researchers state that there is no one best style of leadership and that the most appropriate leadership style for a coach varies with the situation (Anshel, 1990; Mountjoy, 1980).

Leadership styles include democratic behaviour, training and instruction behaviour, autocratic behaviour, social support behaviour, and rewarding behaviour (Chelladurai & Saleh, 1980). A leader may adapt more than one style in an attempt to create a successful team. Straub (1978) claimed that different sport groups require different types of leadership. The coach needs to reflect on the current situation and the athletes and adapt the leadership style to the task. Particularly, the personalities of the athletes must be considered (Chelladurai, 1990).

An effective leader not only needs to be concerned with goal setting procedures, successful team performance, team training, knowledge of team ability,

and individual personality variables, but also with creating a positive team climate. As stated by Moos (1974), almost everyone intuitively believes that social climate has a significant impact on the people functioning in a particular group. From a leadership standpoint, is there a style of coaching that better develops and/or maintains a positive team climate? Will leadership style either enhance social climate or create an anxious social climate for the group? Chelladurai (1984a) reported that leadership style is more important to sporting success than creating a positive social climate.

Attempting to understand the relationship between leadership and team climate, the investigator initiated this study. Self-assessment inventories for leadership and social climate were utilized to assess the relationship between these variables. From the review of literature, it appears that the use of professional athletes for studies of this nature has been limited.

Scope of Problem

This study examined the relationship between athletes' perceived leadership behaviour of their coaches of the Major Indoor Lacrosse League (MILL) teams and athletes' perceived team climate. Two self-

report inventories were administered to players ($N = 67$) of the MILL.

Leadership behaviour was measured using the Leadership Scale for Sport (LSS; Chelladurai & Saleh, 1980; see Appendix A). The LSS consists of 40 statements that, when answered by placing an X in one of the 5-point Likert-type scale categories ranging from "always" to "never," identify a perceived leadership type. The LSS measures the following leadership dimensions: (a) training and instruction behaviour, (b) democratic behaviour, (c) autocratic behaviour, (d) social support behaviour, and (e) positive feedback behaviour.

Team climate was measured by the Group Environment Scale (GES; Moos & Humphrey, 1974; see Appendix B). The GES is a 90-item questionnaire designed to assess perceptions of climate in social settings or environments. The 10 subscales, each with 9 items, assess the following three domains or sets of dimensions: (a) the relationship dimension measured by the cohesion, leader support, and expressiveness subscales; (b) the personal growth or goal orientation dimension measured by the independence, task orientation, self-discovery, and anger and aggression

subscales; and (c) the systems maintenance and system change dimension measured by the order and organization, leader control, and innovation subscales.

The data allowed the investigator to assess the relationship between leadership styles and team climate. Descriptive statistics were calculated and data were analyzed using Pearson-product-moment correlation coefficients and canonical correlation techniques to assess the various relationships that existed within the data.

Statement of Problem

The relationship between leadership behaviour of the MILL coaches and perceived team climate of the MILL players was investigated in this study. Perceived team climate was measured using the GES while the leadership behaviours were measured using the LSS. The data collected from the assessment were analyzed in an attempt to answer the following question: Do leadership styles predict a team's perceived team climate?

Hypothesis

Perceived team climate can be predicted from leadership style.

Assumptions of Study

The following assumptions were made for the purposes of this study:

1. The GES is an accurate, reliable, and valid instrument for measuring team climate.
2. The LSS is an accurate, reliable, and valid instrument for measuring leadership behaviour.
3. The subjects were able to relate to the items stated on the GES and LSS, and honest answers were recorded.
4. Sufficient time was available during the season allowing for storming, norming, and forming of each lacrosse team.

Definition of Terms

The following definitions clarify the meaning of terms used:

1. Anger and aggression (AA): the degree to which the group tolerates and encourages open expression of negative feeling and inter-member disagreement (Moos, 1981).
2. Autocratic behaviour (AUTO): behaviour of the coach that stresses personal authority and independence in decision-making (Chelladurai & Saleh, 1980).
3. Cohesion (C): the degree of members'

involvements in and commitment to the group, and the concern and friendship they show for one another (Moos, 1981).

4. Democratic behaviour (DEM): behaviour of the coach that allows greater participation by the athletes in decisions pertaining to group goals, practice methods, and game tactics and strategies (Chelladurai & Saleh, 1980).

5. Expressiveness (EX): the extent to which freedom of action and expression of group members' feelings are encouraged (Moos, 1981).

6. Independence (IND): the extent to which the group encourages independent action and expression among members (Moos, 1981).

7. Innovation (INN): the extent to which the group facilitates diversity and change in its own functions and activities (Moos, 1981).

8. Leader control (LC): the extent to which the tasks of directing the group, making decisions, and enforcing rules are assigned to the leaders (Moos, 1981).

9. Leader support (LS): the degree of help, concern, and friendship shown by the leader for the members (Moos, 1981).

10. Order and organization (OO): the degree of formality and structure of the group and the explicitness of group rules and sanctions (Moos, 1981).

11. Rewarding (positive feedback) behaviour (REW): reinforcement provided for an athlete by recognizing and rewarding good performance (Chelladurai & Saleh, 1980).

12. Self-discovery (SD): the extent to which the group encourages members revelations and discussions of personal information (Moos, 1981).

13. Social support behaviour (SOCS): behaviour of the coach characterized by a concern for individual athletes, for their welfare, for positive group atmosphere, and for warm interpersonal relations with members (Chelladurai & Saleh, 1980).

14. Task orientation (TO): the degree of emphasis by the group on practical, concrete, and "down-to-earth" tasks and on decision-making and training (Moos, 1981).

15. Training and instruction behaviour (TRINST): behaviour of the coach aimed at improving the performance of the athletes by emphasizing and facilitating hard and strenuous training; by instructing them in the skills, techniques, and tactics of the sport; by clarifying the relationship among the

members; and by structuring and coordinating the activities of the members (Chelladurai & Saleh, 1980).

Delimitations of Study

The following were the delimitations of this study:

1. This study involved only professional lacrosse players ($N = 67$) from the MILL.
2. Leadership behaviours were assessed only by the LSS, a self-report assessment tool.
3. Team climate was measured only by the GES, a self-report assessment tool.

Limitations of Study

The following were the limitations of this study:

1. Leadership behaviour and team climate were investigated only within the confines of the definitions outlined and the instruments administered.
2. The results of this study can only be generalized to professional lacrosse players and coaches who are considered similar to the subjects in this study.

Chapter 2

REVIEW OF LITERATURE

The review of literature related to this study focuses on the following: defining and assessing leadership, the importance of leadership to team climate, defining and assessing team climate, and summary.

Defining and Assessing Leadership

Chelladurai and Saleh (1978) described leadership as the behavioural process of influencing subordinates toward organizational goals. Discussions of what constitutes the best leadership style has long been a subject of controversy. As group leaders, coaches have been traditionally characterized as disciplinarians, enforcers of rigid rules, and impersonal in their attitudes and treatment towards players (Tutko & Richards, 1971).

In the 1920s, researchers tried to determine what characteristics or personality traits were common to great leaders in business and industry (Weinberg & Gould, 1995). Such traits as self-confidence, dominance, assertiveness, perceived intelligence, initiative, high levels of aspiration, independence, and self-assurance were perceived as relatively stable personality dispositions. These common traits are

often referred to as the "great person theory" and appear to be universal characteristics of successful leaders.

The popularity of the trait theory of leadership did not last too long before it became apparent that excellent leaders did not act alike. Leaders who excelled in some areas or tasks were poor leaders in other situations. Martens (1987) concluded that while there are no qualities that are absolutely essential for all leaders to possess, there are some qualities that many successful leaders have in common.

Universal behaviours of effective leaders became the next focus for research. The typical research design consisted of assessing various aspects of leaders' personality or behaviour and attempted to identify the particular traits or behaviours that would discriminate the successful from the unsuccessful leaders (Horn, 1992). Trait and behavioural theories focussed on personal factors as opposed to the interaction between people and situations.

Historically, leadership research centered around coaches' personalities, coaches' behaviours, coach-athlete relationships, or on trait and personality differences among coaches or between coaches and non-coaches. Early approaches ignored important

considerations such as situational factors or needs of the athlete (Weiss & Friedrichs, 1986). The view that leadership effectiveness is a function of both situational and individual characteristics is more credible and has gained general acceptance in the last few decades (Chelladurai, 1984a; Straub, 1978).

In response to the simplistic trait and behavioural approaches, a number of situationally based theories surfaced. House's path-goal theory (House & Mitchell, 1974), Hersey and Blanchard's (1972) life-cycle theory, and Fiedler's (1967) contingency theory were developed with the belief that leadership effectiveness cannot be determined solely by assessing traits and behaviours (Horn, 1992).

A significant amount of the literature on situational factors suggests that a flexible coaching style will lead to the highest team success regardless of the situation. This means that coaches must adopt a leadership style based on the current situation. For example, if the team is struggling with team communication, the coach may want to adopt an interpersonal approach to foster communication. If the team is communicating with each other but lacks a team leader, the coach may adopt an authoritarian style. Successful coaches change leadership style based on the

situation presented. Chelladurai's studies with Carron and Saleh (Chelladurai & Carron, 1978; Chelladurai & Saleh, 1978) introduced a leadership approach that focused on the varying behaviours of the coach that are appropriate to different situations.

Chelladurai (1984b) stated that decision-making is an integral part of coaching. He claimed that decision-making is situationally based and that athletes find leadership decision-making, such as autocratic behaviour, acceptable as long as the situation warrants it. Participative decision-making may also be required. However, the humanistic quality of participative decision-making is not always beneficial but can be effective in certain situations. After the identification of behaviours, Chelladurai & Saleh (1980) proposed a multidimensional leadership model that specified that coaching behaviour should be contingent upon the preferences of team members and the particular sport context. In order to test the relationships and applicability of the model to the prediction of leadership effectiveness in sport contexts, it was necessary to develop instrumentation to measure the model's constraints.

Originally, leadership behaviour inventories were centered around business organizations rather than

sport teams. Chelladurai & Saleh (1980) developed the initial sport-specific LSS in 1980. The LSS is comprised of one direct task factor (TRINST), two decision-style factors (DEM and AUTO), and two motivational factors (SOCS and REW). The LSS is a valuable instrument, which can be used successfully to understand leadership in sport settings. It seems obvious that leadership effectiveness lies in the relationships between traits, behaviours, and situations. Chelladurai and Carron's (1978) leadership model and Chelladurai and Saleh's (1980) leadership scale are paramount for situational leadership research.

According to Chelladurai and Saleh (1980), internal consistencies (Cronbach's alpha) for each of the five LSS subscales are in acceptable range, varying from autocratic (.45) to training and instruction (.93). Reliability coefficients were adequate and ranged from social support (.71) to democratic behaviour (.82). They continue to explain that the factor structure is stable according to items and factors extracted from an earlier study (Chelladurai & Saleh, 1978). Horn (1992) suggested a vast majority of the studies that utilized the LSS were conducted with university-level athletes and additional research is

necessary with other age groups and sport types.

Early researchers assumed either a trait or a behavioural approach to the study of leadership effectiveness. Disillusioned with the rather simplistic trait and behavioural approaches' lack of generalizability, a variety of situationally based theories were developed. Terry and Howe (1984) have suggested that sports teams may possess certain unique characteristics that make the general leadership theories inapplicable. In response to this lack of fit, Chelladurai (1980) developed a theory of leadership effectiveness that was specific to the sport domain.

Importance of Leadership to Team Climate

Carron (1984) stated that group cohesion involves a commonality of purpose on a sports team, such as team success, satisfaction of affiliation needs, and personal success, all of which lead the team to come together to reach common goals. Creating a positive team climate involves the development of a winning attitude, which includes building team spirit and pride.

According to Melnick (1982), the term culture is used by small group researchers to capture that special something that distinguishes one team from another.

The three important elements of team culture are values, norms, and sanctions. He stated that team culture includes a style of leadership that the coach creates to instill a positive commitment from the team to win. Coaches often spend a great deal of time preparing a team physically and forget the importance of creating a positive team culture.

Widmeyer and Martens (1978) showed that cohesive teams have better performance success. An important factor that aids cohesive teams is that they can spend more time on team performance because team communication and team interaction during performance is cohesive. Further, team members tend to work harder for the benefit of the team. Group cohesion is seen in many sporting endeavours where group activities are prevalent. Carron and Spink (1993) showed that fitness classes in which cohesiveness was present had higher adherence to the fitness program. Similarly, they showed that the exercise group who undertook a team building strategy had significantly fewer dropouts and late arrivals.

The interaction between leadership style and group cohesion has been explored in the literature. If the team lacks cohesion, then the coach should adopt a leadership style that is authoritarian and task

oriented. As noted earlier, the prevailing view that leadership style is affected by situational factors and the behavioural personalities of the team and coach is supported (Chelladurai, 1990).

When a coach adopts a leadership style that allows the athletes to select team related goals, usually high group cohesion results (Brawley, Carron, & Widmeyer, 1993). Setting group goals increases motivation for the athletes to achieve the team goals, increases team cohesion, and ultimately enhances the performance of the team. In essence, developing group goals influences group behaviour in a positive sense.

There have been a few studies that document that more cohesive teams have decreased performance (e.g., Carron, 1984; Gill, 1984). It has been suggested that highly cohesive teams have difficulty with the performance task and decrease performance success due to the heightened demands of maintaining group cohesion. The rationale is that attempting to be highly cohesive takes away from the performance itself.

Overall, however, groups and teams normally reveal a positive performance when a positive team climate exists. The coach must adopt a leadership style that is conducive to the players on the team and the situations that arise. Additionally, the coach must

take into account his or her personal make-up. The literature shows that a positive team climate improves performance and allows the team to work on other factors to increase team success.

Fisher, Mancini, Hirsch, Proulx, and Staurowsky (1982) studied coach-athlete interactions and team climate. The basketball teams in which satisfaction was high spent more time on drills and scrimmages than teams that were less satisfied with their team climate. Where the team had positive coach-athlete interactions, the athletes adjusted their personal behaviour more readily to the coach's suggestions or criticisms. The more satisfied athletes initiated more interactions with their coaches as opposed to responses being elicited by coaches. Other findings that arose from satisfied teams were that coaches were more positively responsive to their players, that athletes spent more time on task, and that athletes were more innovative in their playing environment.

Team harmony has been shown to be an important factor influencing performance. Orlick (1980) suggested that team harmony should be a goal of all coaches because it leads individuals to want to excel and subsequently improves performance. Harmony involves unity, helping each other achieve goals,

supporting each other, wanting others to do well, and working together to reach collective goals.

Defining and Assessing Team Climate

The social climate within which an individual functions may have an important impact on one's attitudes and moods, behaviour, health, and overall sense of well being (Moos, 1974). In most situations, the coach and management team greatly influence the productivity of the group and are responsible for creating the team climate.

The assessment of team climate is a valuable approach that will not only benefit the athletes on the teams but the coaching and management staff as well. Often, a coach's response to team difficulties is an emotional one rather than a carefully reasoned and systematic analysis of the troubled situation (Melnick, 1982). Knowledge about the functioning forces that move the team through various performance levels can make the coach aware of specific areas of concern. Knowing the areas of concern, the coach may then make some adjustments to better serve the team.

Coaches sometimes perceive the team climate as more ideal and in less need of adjustment or change. Athletes, however, might have a different perception of the climate. They may in fact desire some

modifications to create a more positive team climate that will lead to more satisfaction. As stated by Fisher et al. (1982), athletes in satisfied environments initiated more interactions with their coaches, and better interaction between coach and players could only lead to better team climate and cohesion.

Suggested effects of cohesion on groups range from greater communication, which improves the quality of performance, to having to spend less time on group maintenance. It is important to encourage task and social communication at all levels within the team: coach-athlete and athlete-athlete. As suggested by Carron (1984), the greater the communication, the greater the cohesion.

Team climate develops from how players perceive the interrelationships among the group members (Weinberg & Gould, 1995). The athletes' perceptions and evaluations are the barometer of the team's climate. The coach, however, has the strongest influence on establishing team climate (Fisher et al., 1982).

Team culture is concerned with building a climate for success. Besides cohesion, climate is the social architecture that develops a winning attitude, instills

commitment, inculcates pride, and builds team spirit. Team culture is about the style of leadership used by the coach that determines how power is distributed and decisions are made (Martens, 1987). A positive team culture must have room for individualism and the sharing of ideas and responsibilities. When team culture is not adequately developed, or is incompatible with the team direction, then the team will function substantially below its performance capabilities and widespread dissatisfaction is likely (Martens, 1987).

Sport is filled with examples when teams with all the talent to win the championship came up short, or when teams without individual stars performed exceptionally well. McGrath & Altman (1966) suggested that individual member abilities are positively related to group performance, but the relationship is moderate at best and mediated by task and situational factors. Lacrosse is an interactive sport, so success depends upon appropriately combining each player's diverse skills. A positive team climate could only enhance the meshing process.

The GES (Moos, 1974) is an instrument that measures the social-environment characteristics of the group. The 10 subscales, each with 9 items, assess the following three domains or sets of dimensions: (a) the

relationship dimension measured by the cohesion (C), leader support (LS), and expressiveness (EX) subscales; (b) the personal growth or goal orientation dimension measured by the independence (IND), task orientation (TO), self-discovery (SD), and anger and aggression (AA) subscales; and (c) the systems maintenance and system change dimensions measured by the order and organization (OO), leader control (LC), and innovation (INN) subscales.

According to Moos (1981), internal consistencies (Cronbach's alpha) for each of the 10 GES subscales are in an acceptable range, varying from moderate for independence (.62) to high for order and organization (.85) and cohesion (.86). Subscale intercorrelations indicate that the subscales measure distinct though somewhat related aspects of group social environments (Moos, 1981). Moos explained that cohesion, leader support, and expressiveness are positively related to each other and to task orientation and self-discovery. As expected, order and organization is positively related to task orientation and leader control and negatively related to anger and aggression. Groups that are high on innovation also tend to be high on expressiveness and on independence and low on leader control. The test-retest reliabilities are all in an

acceptable range, varying from a low of .65 for independence and .67 for expressiveness to a high of .83 for self-discovery and .87 for anger and aggression.

According to Moos (1974), people generally want a high degree of cohesion, leader support, innovation, expressiveness, and independence. They also want a fairly high emphasis placed on task orientation and self-discovery, but prefer relatively little anger and aggression and leader control.

Carron and Chelladurai (1981) suggested that the nature of the coach-athlete relationship and its effect on athletic performance is worthy of investigation. Environments with positive coach-athlete relationships could apparently create a positive team climate, thereby promoting athlete satisfaction and team performance.

Summary

Early investigation in leadership research focussed primarily on personal traits of leaders. The premise initially followed the premise that great leaders are born and not made. However, as research expanded, the paradigm shifted to leader behaviours and situations. This paradigm shift is credited to Fiedler's (1967) research coupled with other leadership

theorists of the time.

Most recent research suggests that there are four components of leadership that have received scrutiny: the leader's qualities, the style of leadership, the nature of the situation, and the follower's characteristics (Martens, 1987). Leadership is multidimensional and affected by a multitude of factors that the leader must assess. Therefore, coaches need to be congruent in their approach, matching their behaviours to the situation and circumstances.

According to Moos (1974), people generally want a high degree of cohesion, leader support, expressiveness, independence, and innovation. They also want a fairly high emphasis on task-orientation and self-discovery. Fisher et al. (1982) found that athletes wanted their climates to be more cohesive, supportive, tolerant of independence, task oriented, tolerant of personal detail, orderly and organized, and innovative. The above two profiles are quite similar in nature and seem to be the norm when discussing preferred team climate environments.

Chapter 3

METHODS AND PROCEDURES

The following chapter outlines the methods and procedures used in this investigation. Selection of subjects, testing instruments, methods of data collection, scoring of data, treatment of data, and a summary will be addressed.

Selection of Subjects

The subjects involved in this investigation were 67 professional lacrosse players from the six MILL teams. The investigator was the Director of Lacrosse Operations for the professional lacrosse league and access was gained at home games, away games, and practices. Of the 80 athletes agreeing to participate, 67 actually completed the questionnaires.

Testing Instruments

The following tests were administered to the subjects: the LSS (Chelladurai & Saleh, 1980; see Appendix A) and the GES (Moos & Humphrey, 1974; see Appendix B).

The 40-item LSS represents five dimensions of leader behaviour in sports. The five dimensions are briefly described as follows: (a) training and instruction behaviour (TRINST)--the coaches' behaviours directed for improvement of performance due to hard and

strenuous training; (b) democratic behaviour (DEM)--the coaches' behaviours encouraging participation of the athletes in decisions; (c) autocratic behaviour (AUTO) --the coaches' behaviours that involve independent decision-making where personal authority is stressed; (d) social support behaviour (SOCS)--the coaches' behaviours that involve concerns for athletes' welfare, positive group atmosphere, and interpersonal relationships with members; and (e) rewarding behaviour (REW)--the coaches' behaviours that provide reinforcement through rewarding good performance.

The subjects responded to each statement according to their perception of the coaches' behaviours. Five Likert-type responses were available: always (5), often (4), occasionally (3), seldom (2), and never (1). The values were reversed in order to match the correct point value of the response. The sum of the scores for the statements in each dimension was divided by the number of items in that dimension to calculate an average dimension score.

To assess the athletes' perception of their team's climate, the GES was administered. The subjects responded to statements according to their perceptions of the team. The GES is a 90-item rating scale with

items equally divided among the 10 subscales. Subjects marked an X beside True or False for each statement. Scoring was a simple clerical task using the template provided. Items are arranged so that each column of responses constitutes one of the subscales. The investigator counted the number of Xs showing through the template in each column and entered the total in the R/S (raw score) box at the bottom of the answer sheet.

The 10 GES subscales assess three domains or sets of dimensions. A brief description of the domains and subscales is as follows. The relationship dimension is measured by the cohesion (C), leader support (LS), and expressiveness subscales (EX). These subscales assess the degree of members' involvement in and commitment to the group; the concern and friendship they show for one another; the degree of help, concern, and friendship shown by the leader for the members; and the extent to which freedom of action and expression of feelings are encouraged.

The personal growth dimension is measured by the independence (IND), task orientation (TO), self-discovery (SD), and anger and aggression (AA) subscales. These subscales assess the extent to which

the team encourages independent action and expression among members; the degree of emphasis on practical, concrete, "down-to-earth" tasks, and on decision-making and training; the extent to which the group encourages members' revelations and discussions of personal information; and the degree to which the group tolerates and encourages open expression of negative feelings and inter-member disagreements.

The systems maintenance and system change dimension is measured by the order and organization (OO), leader control (LC), and innovation (INN) subscales. These subscales assess the degree of formality and structure of the group and the explicitness of group rules and sanctions; the extent to which the tasks of directing the group, making decisions, and enforcing rules are assigned to the leader; and the extent to which the group facilitates diversity and change in its own functions and activities.

Methods of Data Collection

Each subject received the following: informed consent form, LSS, and GES. The investigator administered the questionnaires at practices, home games, or away games, and all testing took place in the

team locker rooms. Players were requested to arrive at the arena 1 hr earlier than their normal arrival time. The extra hour was sufficient to complete the testing. Subjects were advised to complete the items as honestly as possible. All data were collected during the middle of the 1994 and 1995 seasons. The MILL season operates from January through April.

Scoring of Data

The GES was scored by using the template provided. Items are arranged so each column of responses constitutes one of the subscales. The investigator counted the number of Xs that appeared through the template in each column and entered the total in R/S (raw score) box at the bottom. A detailed description of the GES scoring is available from Moos (1981).

Overlays were made to score each of the LSS dimensions. The 5-point Likert-type scale categories ranging from "always" to "never" were reversed in order to match the correct value of the response. The sum of the scores on the items in each dimension was divided by the number of items in that dimension to derive the dimension score for each subject. The scores were carried to four decimals for statistical analyses. Further details regarding the scoring of the LSS appear

in Chelladurai and Saleh (1980).

Treatment of Data

Means and standard deviations were calculated for the GES and LSS subscales. To obtain a general overview of the relationships among the 15 variables, Pearson product-moment correlations were calculated for all pairs. Canonical correlation was utilized to assess the multivariate relationship between predictor variables (leadership style) and the outcome variables (team climate).

Summary

Professional lacrosse players ($N = 67$) from the six MILL teams completed the LSS and GES. Descriptive statistics were calculated for the GES and LSS subscales. To assess the interrelationships among the 15 variables, Pearson product-moment correlations were computed. Canonical correlation was utilized to assess the multivariate relationship between the predictor variables (leadership style) and the outcome variables (team climate).

Chapter 4

ANALYSIS OF DATA

The results of the investigation are presented in this chapter. This chapter is divided into the following sections: (a) descriptive statistics of team climate and leadership style; (b) intercorrelations of team climate and leadership scales; (c) canonical correlation of leadership style (predictor) and team climate (criterion) variables; and (d) summary.

Descriptive Statistics of Team Climate and Leadership Style

The means and standard deviations were calculated for the team climate and leadership style variables. The GES mean scores range from a low of 0 to a high of 9. As can be seen in Table 1, there were moderately high mean scores for cohesion, leader support, task orientation, order and organization, independence, expressiveness, and leader control. Self-discovery and innovation were moderately low.

The LSS (possible range 1-5) revealed moderately high rewards and training and instruction, with moderate mean scores for autocratic, democratic, and social support behaviours.

Table 1

Means and Standard Deviations of Team Climate and Leadership Style Scales

Team Climate Criterion Variables	<u>M</u>	<u>SD</u>
C	6.88	1.97
LS	6.34	2.33
EX	5.63	2.14
IND	5.69	1.58
TO	5.96	1.94
SD	4.49	2.12
AA	5.24	2.32
OO	5.82	2.45
LC	5.58	1.99
INN	4.16	1.79
Leadership Style Predictor Variables	<u>M</u>	<u>SD</u>
TRINST	3.49	0.69
DEM	3.10	0.71
AUTO	2.84	0.69
SOCS	2.95	0.75
REW	3.51	0.92

Note. AA = anger and aggression. AUTO = autocratic behaviour. C = cohesion. DEM = democratic behaviour. EX = expressiveness. IND = independence. INN = innovation. LC = leader control. LS = leader support. OO = order and organization. SD = self-discovery. SOC

= social support behaviour. TO = task orientation.
TRINST = training and instruction behaviour. REW =
rewarding behaviour.

Intercorrelations of Team Climate
and Leadership Subscales

Pearson product-moment correlations assessed the relationships among all variables. GES Pearson \underline{r} values ranged from a low of .00 (IND and OO) to a high of .60 (LS and TO).

Intercorrelation results displayed in Table 2 revealed a mean 32% subscale variance between the team climate categories C and LS, $\underline{r} = .59$; C and TO, $\underline{r} = .50$; LS and TO, $\underline{r} = .60$; LS and OO, $\underline{r} = .58$; and TO and OO, $\underline{r} = .58$. Overall, the GES correlations are relatively discrete with limited redundancy. The subscale intercorrelations of this study agree with the results reported by Moos (1981), indicating that the subscales measure distinct though somewhat related aspects of group social environments. Negative correlations existed between AA and OO, $\underline{r} = -.45$ and SD and LC, $\underline{r} = -.17$.

LSS Pearson \underline{r} values ranged from a low of $-.21$ (REW and AUTO) to a high of $.74$ (TRINST and REW). Results revealed a mean 53% scale overlap between the leadership dimensions TRINST and REW, $\underline{r} = .74$ and DEM and REW, $\underline{r} = .72$, and a mean 42% scale overlap between TRINST and DEM, $\underline{r} = .65$ and TRINST and SOCS, $\underline{r} = .64$. The LSS is less discrete than the GES and tends to have

moderate redundancy. LSS negative correlations existed between AUTO and DEM, $\underline{r} = -.20$; and REW and AUTO, $\underline{r} = -.21$.

Examination of the relationships between the team climate and leadership variables revealed Pearson \underline{r} values ranged from a low of .04 (REW and INN) to a high of .44 (TRINST and LC). The highest correlations were found between TRINST and LC, $r = .44$; REW and OO, $r = .43$; TRINST and OO, $\underline{r} = .40$; OO and DEM, $\underline{r} = .39$; and LC and REW, $\underline{r} = .39$. Negative correlations existed between AUTO and INN, $\underline{r} = -.35$; and AUTO and LSS, $\underline{r} = -.24$.

Canonical Correlation Analysis of Leadership Scale and Team Climate Variables

The overall measure of the multivariate relationship between the set of predictor variables (TRINST, DEM, AUTO, SOCS, and REW) revealed a statistically significant impact on the criterion variables (C, LS, EX, IND, TO, SD, AA, OO, LC, and INN; Wilks' lambda 0.29, approximate $\underline{F} (50, 240.52) = 1.49$, $\underline{p} < .05$). This result led to the rejection of the null hypothesis, which stated that perceived climate can not be predicted from leadership style.

Dimension reduction analysis revealed that one root was statistically significant. The prediction set

Table 2

Intercorrelations of Team Climate and Leadership Style Scales

	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. C	59*	45*	29*	50*	17	-05	45*	22	10	24	23	-21	23	30*
2. LS		31*	26*	60*	15	-16	58*	29*	06	26*	28*	-24*	30*	37*
3. EX			33*	25*	40*	26*	15	00	28*	01	15	-19	14	26*
4. IND				30*	20	15	00	-11	24	14	09	-14	14	21
5. TO					24	20	59*	09	20	23	19	-15	16	23
6. SD						09	-04	-17	22	-03	04	03	10	-05
7. AA							-45*	04	-03	07	-14	08	07	-03
8. OO								41*	07	40*	39*	-04	32*	43*
9. LC									-14	44*	30*	02	27*	39*
10. INN										-03	02	-35*	04	04
11. TRINST											65*	-10	64*	74*
12. DEM												-20	62*	72*
13. AUTO													-11	-21
14. SOCS														62*
15. REW														

Note. Decimals omitted. AA = anger and aggression. AUTO = autocratic behaviour.

C = cohesion. DEM = democratic behaviour. EX = expressiveness. IND = independence. INN = innovation. LC = leader control. LS = leader support. OO = order and organization. SD = self-discovery. SOC = social support behaviour. TO = task orientation. TRINST = training and instruction behaviour. REW = rewarding behaviour.

* $p < .05$.

of variables had a statistically significant impact on the team climate criterion variables, explaining 40% of the variance.

The standardized canonical correlation loadings appear in Table 3. Root 1 ($R_c = .64$) revealed the following relationship between the leadership predictor variables and team climate outcome variables: high expressiveness, low order and organization, and low anger and aggression was predicted by low training and instruction and moderately low autocratic behaviour.

This profile characterizes the coaches spending little time on skill instruction, game strategies, game simulation, and role clarity. The coaches tend to place a low priority on command style and task-oriented leadership behaviours, empowering the athletes to assist in the decision-making process. The above leadership characteristics predicted a low level of inter-athlete disagreement and open expression of negative feelings. The environments were informal and unstructured with few concrete rules for the athletes to follow and consequences were lacking. However, an environment prevailed where athletes were free to express their feelings, concerns, and ask questions relevant to the task at hand.

Table 3

Standardized Canonical Loadings for Leadership Style
(Predictor) and Team Climate (Criterion) Variables

<u>Variable</u>	<u>Root 1</u>
<u>Predictor Variables</u>	
TRINST	-1.067
DEM	0.124
AUTO	-0.495
SOCS	-0.103
REW	-0.256
<u>Variable</u>	<u>Root 1</u>
<u>Criterion Variables</u>	
C	-0.059
LS	0.365
EX	0.631
IND	-0.277
TO	0.064
SD	-0.361
AA	-0.685
OO	-0.981
LC	-0.310
INN	0.262

Note. AA = anger and aggression. AUTO = autocratic

behaviour. C = cohesion. DEM = democratic behaviour.
EX = expressiveness. IND = independence. INN =
innovation. LC = leader control. LS = leader support.
OO = order and organization. SD = self-discovery. SOC
= social support behaviour. TO = task orientation.
TRINST = training and instruction behaviour. REW =
rewarding behaviour.

Summary

The GES mean scores revealed moderately high cohesion, leader support, task orientation, order and organization, independence, expressiveness, and leader control with moderately low innovation and self-discovery. The LSS mean scores revealed moderately high rewards and training and instruction with moderate democratic, autocratic, and social support behaviours.

Overall, the GES intercorrelations are relatively discrete with limited redundancy while the LSS is less discrete and tends to have moderate redundancy.

Pearson product-moment correlation revealed moderate relationships between leader control and training and instruction, leader control and rewards, order and organization and democratic behaviour, order and organization and training and instruction, and order and organization and rewards.

Canonical correlation analysis revealed one significant root. Low training and instruction with moderately low autocratic behaviours predicted low order and organization, low anger and aggression, and high expressiveness.

Chapter 5

DISCUSSION OF RESULTS

The results presented in chapter 4 are discussed in this chapter. Topics include the following: descriptive statistics of team climate and leadership style; intercorrelations of team climate and leadership variables; canonical correlation of team climate and leadership variables; and summary.

Descriptive Statistics of Team Climate and Leadership Style

The means and standard deviations for leadership and team climate variables are reported in Table 1. There were moderately high mean scores for cohesion, leader support, and expressiveness variables that comprise the relationship dimension. Examining the definitions, this would suggest that players seemed generally satisfied with the degree of friendship, team values, help and concern, and felt comfortable with the opportunity to address comments and concerns in a supportive environment. According to Orlick (1980), harmony grows when you really listen to others and when they listen to you, when you are considerate of others' feelings and they are considerate of yours, when you accept their differences and they accept yours, and when you help them and they help you.

Personal growth dimension variables, independence and task orientation, also revealed moderately high means. Independent action and expression of personal feelings of the athletes was encouraged by the coaches. There was emphasis on practical concrete tasks and on decision-making and training. Moderately low self-discovery suggests that athletes may not be encouraged to share revelations concerning their personal growth and development. The MILL schedule consisted of 12 games and one practice per week during the January, February, and March regular season. This format could account for the lack of time spent on personal issues and concerns.

Moderately high leader control and order and organization, variables comprising the system maintenance and system change dimension in part, portray athletes as not having sufficient input in matters. Furthermore, it appears the tasks for directing the group and making group decisions and rules were handled by the coaches. Group structure and group formality seems to be present with explicit group rules and sanctions existing. Moderately low innovation adds to the perception that the group did not facilitate diversity and change in its own

functions and activities. According to Moos (1974), people generally want a high degree of cohesion, leader support, expressiveness, independence, and innovation. Staurowsky (1979) conducted a study of high school female basketball athletes and their coaches in which she found that the satisfied teams were characterized by high leader support, independence, and organization and allowed more emphasis on expressiveness and self-discovery.

The leadership variable mean scores for training and instruction and rewarding behaviours were moderately high. An environment that facilitated strenuous training and improved performance through skill development, game techniques, and tactics seemed prevalent. Athletes perceived that their coaches recognized, reinforced, and rewarded good performance. Athletes are more likely to feel confident about performing a certain skill if they can consistently execute it during their practices. Good practices prepare the athletes physically, technically, and tactically, and this preparation enhances confidence (Horn, 1992).

Moderate means for autocratic and democratic behaviours reveal that coaches tended to use both

decision-making styles. Consistent with Vroom and Yelton's (1973) work on leadership and decision-making theories, Chelladurai and Haggerty (1978) proposed that the particular decision-making style used by a coach in any situation can vary on a continuum in which the points are defined in terms of the amount of participation the athletes are allowed to have in the decision-making process.

The items on the two decision-making style factors (democratic, autocratic) describe a coach who allows the athletes to participate in decisions relating to group goals, practice methods, and game tactics and strategies (democratic) and/or one who is aloof from the players and stresses personal authority in dealing with them (autocratic). Chelladurai (1984b) claimed that decision-making is an integral part of coaching. He claimed further that decision-making is situationally based and that athletes find autocratic decision-making acceptable as long as the situation warrants it. The underlying principle in decision-making effectiveness is that coaches do not or should not adhere to only one decision-making style.

The moderate value of social support reveals a concern for the athletes' well being, suggesting that

coaches tend to exhibit a concern for individual athletes and establish warm interpersonal relationships. Coaches are responsible for creating a team climate that emphasizes acceptance, understanding, and safety (Gordon, 1988), among other things.

Intercorrelations of Team Climate
and Leadership Variables

The correlation values for the team climate variables are reported in Table 2. These values were as expected and revealed no more than 36% subscale shared variance. The team climate scales are relatively discrete and reveal limited redundancy of the GES.

The LSS tends to be less discrete with moderate redundancy. There was a 53% overlap between training and instruction and rewards, $r = .74$. According to Horn (1992), the researchers who have assessed the statistical properties of the LSS relative to their specific sample of subjects have reported favourable reliability and consistency (e.g., Chelladurai, Malloy, Imamura, & Yamaguchi, 1987; Chelladurai, Imamura, Yamaguchi, Oinuma, & Miyauchi, 1988).

The intercorrelation values for leadership and team climate variables were in the direction (i.e.,

positive or negative) expected by the investigator. Significant Pearson r values were found between TRINST and LC, $r = .44$; REW and OO, $r = .43$; TRINST and OO, $r = .40$; OO and DEM, $r = .39$; and LC and REW, $r = .39$. An examination of the definitions for TRINST and LC and their correlation ($r = .44$) suggests that coaches who emphasized hard and strenuous training, along with instruction in skills, techniques, and tactics also tend to direct the tasks of the group by making decisions and enforcing rules.

There is a fine line where too much leader control and autocratic coaching is detrimental. According to Fisher et al. (1982), athletes in satisfied environments initiated more interactions with their coaches. Better interaction between coach and players could only lead to better team climate.

The OO variable was significantly related to DEM ($r = .39$), to TRINST ($r = .40$), and to REW ($r = .43$). These relationships suggest that coaches who create a structured environment, constructed with explicit, formal rules tend to have specific sanctions in place to prevent their athletes straying from the values and norms that exist within the team. Coaches who established organized environments also focussed their

attention on teaching the lacrosse skills, simulated game situations, and were concerned with the individual roles of their athletes. Team culture is comprised of the formal organizational systems that the coach establishes for moving the team toward its goal (Martens, 1987).

The organized and structured coach allowed participation by the athletes in decision-making. Athletes contributed their views for group goals, practice planning, game planning, and team strategies. The talents and experiences of the athletes and coach were united, making the group responsible and more in control of their destination. Recognizing and rewarding good performance through the use of positive feedback was utilized by the coaches to shape the athletes' behaviour and build confidence. These coaches seemed concerned with the physical, psychological, and social environments of their teams.

Canonical Correlation of Team Climate and Leadership Variables

Canonical correlation revealed that low training and instruction and moderately low autocratic behaviours predicted high expressiveness, low order and organization, and low anger and aggression. This

leadership profile explained approximately 40% of the team climate variance.

This profile characterizes coaches as spending little time on skill instruction, game strategies, game simulation, and role clarity. The above coaching behaviours predicted low order and organization. Careful investigation into the review of literature and the definitions for TRINST and OO support role clarity, strenuous training and instruction, and high organization as favourable qualities of coaches as viewed by athletes (Silletta, 1982). An unstructured and unorganized environment at the professional lacrosse level could have a negative impact on players. Erle's (1981) research was concerned with the effects of organizational goals on preferred leadership. His results showed that members of intercollegiate hockey teams preferred more training and instruction, social support, and less positive feedback than members of intramural hockey teams.

Organization is itself a form of motivation. Players, especially young players, want and need the kind of guidance, leadership, and professionalism that is evidenced in coaches' efforts to organize their practices and program (Warren, 1983). If athletes feel

their environment is lacking formality, structure, group rules, and sanctions, they may feel compelled to take control. This tendency might help the investigator comprehend the high expressiveness component. The lacrosse athletes must depend on themselves when it comes to instruction, training, techniques, tactics, structure, and coordinating their performance efforts. The high expressiveness could be their voice in filling the void left from less than adequate leader direction.

Martens (1987) pointed out that the leadership style of the coach is probably the most significant factor influencing the team culture, and Fisher et al. (1982) claimed that the coach was in the best position to create team climate. In relationship to the canonical correlation results and the team climate literature, some coaches should exhibit higher frequencies of behaviours oriented toward improving performance, creating cohesion, providing adequate leader support, enhancing task orientation, promoting independence, and self-discovery. The above variables must be present to assist in building a positive team climate. Some of the factors of team climate are more easily changed than others, but they all can affect the

effective functioning of a group (Zander, 1982).

Moderately low autocratic behaviours portray coaches as placing a low priority on command style and task-oriented leadership behaviours, empowering the athletes to assist in the decision-making process. Independence in decision making and personal authoritative behaviours are necessary in certain situations. According to Horn (1992), Chelladurai proposed that optimal performance and satisfaction on the part of the athletes will be achieved if the leadership behaviours exhibited by the coach are congruent with behaviours preferred by the athletes and appropriate for the particular sport context. Moderately low autocratic leadership behaviours are appropriate providing the behaviours occur at the correct time and meet the demands for the task at hand.

The low anger and aggression behaviour is congruent with the literature. Orlick (1980) claimed that teams need to get a commitment to a goal for improving interpersonal harmony with team members. The MILL teams had a low tolerance for expression of negative feelings and inter-member disagreement. Communication skills and emotional control are necessary when interpersonal problems exist. Perhaps

the MILL coaches created an environment where players were communicated with in a positive way, and problems were solved before they grew out of proportion.

Summary

The GES mean scores revealed moderately high cohesion, leader support, task orientation, order and organization, independence, expressiveness, and leader control with moderately low innovation and self-discovery. The lowest mean score was for anger and aggression.

Examining the definitions and reviewing the literature, some MILL coaches could focus on leadership behaviours that decrease leader control. Tasks for directing the team and making group decisions and rules need player input so the group works together. Martens (1987) suggested that leadership is the wise use of power. Further, he claimed to explain that leaders must empower their staff and players to help achieve each other's individual needs and team goals.

Enhancing leadership behaviours that would increase the athletes' innovation and self-discovery should be considered by some MILL coaches. Players need to freelance and experiment, and facilitate diversity and change in the functions and activities of

the group. Athletes need to be encouraged to share their feelings and revelations with coaches and teammates regarding personal growth and development.

The LSS mean scores for training and instruction and rewards were moderately high with moderate means for autocratic behaviour, democratic behaviour, and social support. Leadership behaviours that facilitate improving and reward performance in an environment where the leader's decision-making style meets the task demands could enhance team climate.

A significant relationship exists between leader control and training and instruction. The coach who emphasizes behaviours that facilitate improved performance tends to feel a need to be somewhat autocratic when it comes to directing the group. Coaches must be cautious with too much autocratic and leader controlled environments that could hamper team climate.

The canonical correlation revealed that low training and instruction and moderately low autocratic behaviours predicted high expressiveness, low order and organization, and low anger and aggression. The high expressiveness component could be the way players compensate for the less than adequate leader direction.

It is understandable for players in environments where the coaches' behaviours are not conducive to enhancing team performance to perceive their environments as informal and unstructured. In relationship to the canonical correlation results, some coaches need to develop and use strategies to improve training and instruction techniques with hopes to improve the order and organization of their teams.

Chapter 6

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study investigated the relationship between perceived leadership styles and team climate. MILL players ($N = 67$) from six teams completed the following two questionnaires: the Leadership Scale for Sports (LSS) and the Group Environment Scale (GES).

Descriptive statistics for the GES revealed moderately high mean scores for cohesion, leader support, task orientation, order and organization, independence, expressiveness, and leader control. Innovation and self-discovery were moderately low. Descriptive statistics for the LSS revealed moderately high means for rewards and training and instruction, with moderate mean scores for autocratic, democratic, and social support behaviours.

To assess the interrelationships among all the variables, Pearson product-moment correlation was utilized. The GES intercorrelations are relatively discrete, revealing limited redundancy, while the LSS is less discrete and tends to have moderate redundancy. Examining the relationships between the team climate and leadership variables revealed the highest correlations between TRINST and LC, $r = .44$; DEM and OO,

$\underline{r} = .43$; TRINST and OO, $\underline{r} = .40$; OO and DEM, $\underline{r} = .39$; and LC and REW, $\underline{r} = .39$.

The overall measure of the multivariate relationship between the outcome measures and the predictor variables was determined using canonical correlation analysis. Dimension reduction analysis indicated one significant root explaining 40% of the variance. The following relationship between team climate outcome variables and the leadership predictor variables was revealed: high expressiveness, low order and organization, and low anger and aggression was predicted by low training and instruction and moderately low autocratic behaviour.

Conclusions

The results of this study yielded the following conclusions regarding the relationship between leadership style and the team climate.

1. The use of training and instruction behaviours are paramount. Some coaches need to improve the frequency of such behaviours attempting to create an environment with more order and organization.

2. The use of the LSS as a predictor of team climate is significant enough to warrant its use in future studies.

3. Under appropriate circumstances, the GES appears useful when attempting to understand the relationships between leadership styles and perceived team climate.

4. Some coaches may choose to increase leader behaviours that increase innovation and self-discovery.

5. Coaches should consider adopting behaviours that decrease a leader controlled environment.

Recommendations

The following recommendations for further study were made after the completion of this investigation.

1. Utilize the LSS for more studies using a variety of sports team to assess preferred leadership.

2. Utilize the GES to assess the ideal team climate preferred by lacrosse players.

3. Utilize the coaches/leaders of the teams to compare their perceptions of team climate to those of their athletes.

4. Repeat this study with the teams after the data are shared with the coaches.

5. Repeat this study with a wide range of junior "A" and senior lacrosse teams.

6. Repeat this study with the Canadian National Field Lacrosse Team.

7. Improve the psychometrics of the LSS.

Appendix A

LEADERSHIP SCALE FOR SPORTS

(ATHLETES' PERCEPTION OF COACH'S BEHAVIOUR)

Instructions

Each of the following statements describes a specific behaviour that a coach may exhibit. For each statement there are five alternatives:

1. ALWAYS
2. OFTEN (about 75% of the time)
3. OCCASIONALLY (about 50% of the time)
4. SELDOM (about 25% of the time)
5. NEVER

Please indicate your coach's actual behaviour by placing an "X" in the appropriate space. Answer all items even if you are unsure of any.

Please note that you are rating your present coach.

1. Sees to it that athletes work to capacity.
2. Asks for the opinion of the athletes on strategies for specific competition.
3. Helps athletes with their personal problems.
4. Compliments an athlete for good performance in front of others.
5. Explains to each athlete the techniques and tactics of the sport.
6. Plans relatively independent of the athletes.
7. Helps members of the group settle their conflicts.
8. Pays special attention to correcting athletes' mistakes.
9. Gets group approval on important matters before going ahead.
10. Tells an athlete when the athlete does a particularly good job.
11. Makes sure that the coach's function in the team is understood by all athletes.
12. Does not explain his/her actions.
13. Looks out for the personal welfare of the athletes.
14. Instructs every athlete individually in the skills of the sport.
15. Lets the athletes share in decision-making.

16. Sees that an athlete is rewarded for a good performance.
17. Figures ahead on what should be done.
18. Encourages athletes to make suggestions for ways to conduct practices.
19. Does personal favours for the athletes.
20. Explains to every athlete what should be done and what should not be done.
21. Lets the athletes try their own way even if they make mistakes.
22. Expresses any affection felt for the athletes.
23. Expects every athlete to carry out one's assignment to the last detail.
24. Lets the athletes try their own way even if they make mistakes.
25. Encourages the athlete to confide in the coach.
26. Points out each athlete's strengths and weaknesses.
27. Refuses to compromise on a point.
28. Expresses appreciation when an athlete performs well.
29. Gives specific instructions to each athlete on what should be done in every situation.
30. Asks for the opinion of the athletes on important

decisions.

31. Encourages close and informal relations with athletes.
32. Sees to it that the athletes' efforts are coordinated.
33. Lets the athletes work at their own speed.
34. Keeps aloof from the athletes.
35. Explains how each athlete's contribution fits into the total picture.
36. Invites the athletes home.
37. Gives credit when it is due.
38. Specifies in detail what is expected of athletes.
39. Lets the athletes decide on plays to be used in a game.
40. Speaks in a manner which discourages questions.

Appendix B

GROUP ENVIRONMENT SCALE

Instructions

There are 90 statements in this booklet. They are statements about groups. You are to decide which of these statements are true of your group and which are not.

If you think the statement is True or mostly True of your group, make an "X" in the box labelled "T" (true). If you think the statement is False or mostly False of your group, make an "X" in the box labelled "F" (false).

Please be sure to answer every item.

1. There is a feeling of unity and cohesion in this group.
2. The leader spends very little time encouraging members.
3. When members disagree with each other, they usually say so.
4. Individual talents are recognized and encouraged in this group.
5. There is very little emphasis on practical tasks in this group.
6. Personal problems are openly talked about.
7. Members are often critical of other members.
8. The activities of the group are carefully planned.
9. This group is run in a pretty loose way.
10. Things are pretty routine in this group most of the time
11. There is very little group spirit among members.
12. The leader goes out of his way to help members.
13. It's hard to tell how members of this group are feeling.
14. In this group, members are learning to depend more on themselves.
15. This is a down-to-earth, practical group.
16. Members are expected to keep their personal hang-

ups out of the group.

17. Members of this group rarely argue.
18. Each member has a clear idea of the group's goals.
19. The leader usually decides what the group will do next.
20. The group does very different things at different times.
21. There is a strong feeling of belongingness in this group.
22. The leader doesn't know the members very well.
23. Members often say the first thing that comes into their minds.
24. Everyone in this group is pretty much the same.
25. The group rarely has anything concrete to show for its efforts.
26. Members sometimes tell others about their feelings of self-doubt.
27. People in the group sometimes yell at each other.
28. It's sometimes hard to tell just what's going on in this group.
29. In a disagreement, the leader has the final say.
30. New approaches are often tried in this group.
31. Members of this group feel close to each other.
32. The leader explains things to the group.

33. Members show a good deal of caution and self-control in the group.
34. Most members "go along with the crowd."
35. This is a decision-making group.
36. Members sometimes talk about their dreams and ambitions.
37. Angry feelings are rarely expressed in this group.
38. There is a great deal of confusion in this group at times.
39. The leader enforces the rules of the group.
40. The group feels most comfortable with tried-and-true ways of doing things.
41. Members put a lot of energy into this group.
42. The leader helps new members get acquainted with the group.
43. Members tend to hide their feelings from one another.
44. Members are expected to take leadership in the group.
45. This is a planning group.
46. Members hardly ever discuss their sexual lives.
47. Members often gripe.
48. The rules of the group are clearly understood by members.

49. Members who break the group's rules are corrected by the leader.
50. This group always stays just about the same.
51. A lot of members just seem to be passing time in this group.
52. The leader takes a personal interest in the members.
53. It's O.K. to say whatever you want to in this group.
54. Members of this group are encouraged to act independently.
55. Relatively little work gets done in this group.
56. Members' religious beliefs are never discussed in the group.
57. Some members are quite hostile to other members.
58. This is a well-organized group.
59. The leader often gives in to pressure from the members.
60. People in this group are very interested in trying out new things.
61. The members are very proud of this group.
62. The leader doesn't expect much of the group.
63. There is a lot of spontaneous discussion in this group.

64. Members need the group's approval of their decision before carrying them out.
65. This group concentrates on dealing with everyday problems.
66. Members can discuss family problems in the group.
67. The leader never starts arguments in group meetings.
68. The leader makes sure that discussions are always orderly.
69. Members may interrupt the leader when he is talking.
70. This group welcomes unusual ideas.
71. This is a rather apathetic group.
72. The leader tells members when they're doing well.
73. Members are careful about what they sa.
74. The group helps members to become more self-reliant.
75. This group does not help its members make practical decisions.
76. In this group, you can find out what other people really think of you.
77. The leader sometimes gets angry at members of the group.
78. The group has an agenda for each meeting.

79. The leader has much more influence on the group than the other members do.
80. The group usually follows about the same pattern in every meeting.
81. The group is a good place to make friends.
82. Members can count on the leader to help them out of trouble.
83. People here think things out before saying anything.
84. There is a good deal of pressure to conform in this group.
85. The group helps its members learn new skills.
86. This group is a good place to "let off steam."
87. Some members are involved in petty quarrels with others.
88. Sometimes even the leader doesn't know what to do next.
89. The leader often tells members how to do things.
90. This group has a set way of doing things.

Appendix C

COVER PAGE TO SUBJECTS

You are being asked to participate in a study to investigate the relationship between coaching leadership style and team climate of your lacrosse team. Your task, if you choose to participate, will be to complete two (2) paper and pencil questionnaires. The Leadership Style for Sport Inventory is a 40-item questionnaire that will assess your perception of your coaching staff's leadership style (e.g., supportive). The Group Environment Scale is a 90-item inventory that will measure your assessment of your team climate (e.g., cohesive). The testing time should take less than 1 hr.

The overall results of this investigation will be shared with athletes, coaches, general managers, and owners for the purpose of advancing lacrosse coaching effectiveness, particularly pointing out areas in which adjustments might be made. That would seem to be of interest to all parties involved. Your individual responses will be anonymous.

I want to emphasize that your participation is voluntary and that your name is not requested. If you choose to participate in the study, then I ask you to

complete the two questionnaires. If you choose not to participate, then simply return the packet when they are collected. This way, no one will know whether or not you completed the questionnaires.

At this point, please tear off this cover page from the rest of the packet. If at any time you need more information about the study or have any questions, please contact Johnny Mouradian at (905)684-9777. Thank you for considering this request to participate in this study.

Appendix D

INFORMED CONSENT FORM

1. Purpose of the Study

The purpose of the study is to determine the relationship between leadership styles and team climate.

2. Benefits of the Study

Managers and coaches could adjust their leadership styles to develop positive team climates.

3. What You Will Be Asked To Do

The Leadership Style for Sport Inventory and the Group Environment Scale are the two questionnaires that will be completed. Each inventory will take approximately 20 to 30 min to complete.

4. What You Can Expect To Happen As A Result Of Your Participation In This Study

There are no possible risks related to this study and no follow up is necessary.

5. If You Would Like More Information About the Study

During the study or after the study if you would like more information please contact Johnny Mouradian (905) 684-9777.

6. Withdrawal From the Study

During the study, you are free to omit any

questions that you feel are uncomfortable to answer. Subjects are free to withdraw from the study at any time.

7. How The Data Will Be Maintained In Confidence

Subjects will not have their names on the inventories therefore anonymity of responses is guaranteed.

I have read the above and understand its contents. I agree to participate in the study. I acknowledge that I am 18 years of age or older.

Signature

Date

Appendix E

RECRUITMENT LETTER

December 20, 1993

General Manager
Philadelphia Wings
545 County Line Rd.,
Philadelphia, PA

Dear Mr. French:

With regards to our recent telephone conversation, it is my intent to utilize the general managers, coaches, and players from each of the six Major Indoor Lacrosse League teams as subjects in my study.

The purpose of the study is to gain insight into the relationship between leadership styles and team climates. The Leadership Scale for Sports and the Group Environment Scale will be administered to the subjects for data collection.

Each team manager will assist by having coaches and players available for approximately 45 min the day of a practice, home game, or when the team visits Buffalo. To ensure confidentiality, I will be at the site chosen and will administer both instruments to you, the coaches, and the players.

I will telephone you to confirm locations, dates,

and times. Please feel free to contact me at (905)684-9777 if you have any questions.

Yours in lacrosse,

Johnny Mouradian
General Manager
Buffalo Bandits

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