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AGE, SEX AND SKILL LEVEL PREFERENCES FOR LEADER
BEHAVIOR IN COMPETITIVE SWIMMING

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B.M.D.

ABSTRACT

The purpose of this study was to test how age, sex and skill level affect the preference of individual swimmers for the leader behavior of their coaches. The five factors of leader behavior were: (a) autocratic behavior, (b) democratic behavior, (c) training and instruction, (d) positive feedback, (e) social support. The subjects were 424 swimmers of varying skill level divided almost equally by age and sex. They responded to the adapted version of the Leadership Scale for Sport (Chelladurai & Saleh, 1980). Pearson product-correlation technique was utilized to determine whether swimmers preferences for leader behavior were related to age. The student's t-test was used to determine whether swimmers preferences for leader behavior were related to: (a) sex or (b) skill level. The results showed that age was related to swimmers preference for leader behavior in democratic behavior, positive feedback and training and instruction. As age increased the swimmers' performances for democratic behavior decreased and their preferences for positive feedback and training and instruction increased. Elite swimmers' preference for leader behavior was related to social support. The elite swimmers preferred their coach to demonstrate more social support. There was a sex difference for the leader behavior

factors of: (a) autocratic behavior, (b) democratic behavior, and (c) training and instruction. The male swimmers preferred more autocratic behavior than the female swimmers, while the female swimmers preferred more democratic behavior and training and instruction than the males.

TABLE OF CONTENTS

CHAPTER	PAGE
1. INTRODUCTION	1
Statement of the Problem	
Hypotheses	
Limitations of the Study	
Assumptions	
Definitions of Terms	
Significance of the Study	
2. REVIEW OF THE LITERATURE	9
Theoretical Background	
Leadership Scale for Sport	
Preferred/Perceived Leadership	
Summary	
3. PROCEDURE	28
Selection of Subjects	
Selection of Instrument for Testing	
Instruments	
Method of Testing	
Data Analysis	
4. RESULTS	40
Relationships Testing the Model	
Summary	
5. DISCUSSION	47
Preferred Leader Behaviors and Age	
Preferred Leader Behavior and Sex	
Preferred Leader Behaviors and Skill Level	
Summary	
6. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . . .	55
Summary	
Conclusions	
Recommendations	
REFERENCES	59

CHAPTER	PAGE
APPENDIXES	63
Appendix A.	64
Appendix B.	67
Appendix C.	71
Appendix D.	72
Appendix E.	73
Appendix F.	74
VITA	76

LIST OF TABLES

TABLE	PAGE
1. A Multidimensional Model of Leadership	17
2. Distribution of Subjects by Age	30
3. Distribution of Subjects by Geographic Region	31
4. Distribution of Subjects by Skill Level	32
5. Internal Consistency of Leadership Scale for Sport	34
6. Correlation of Age with Preferred Leader Behavior Dimensions	42
7. Male vs Female Swimmers for Preferred Leader Behavior Dimensions	43
8. Elite vs Non-Elite Swimmers for Preferred Leader Behavior Dimensions	45

CHAPTER 1

INTRODUCTION

In sport, the history of leadership theory--"the behavioral process of influencing individuals or groups toward set goals" (Barrow, 1977)--is barely two decades old. Sports theorists looked first at leadership in business organizations. While some parallels to sport leadership emerged, differences between the purposes of the two kinds of organizations, their means for achieving them, and other matters, suggested few hypotheses that would be appropriate or fruitful for a sport coach (Ball, 1975).

Therefore, more recent work explored the response of athletes to various leadership styles and the impact of those styles on team cohesiveness, effectiveness, and performance. Since 1978, Chelladurai, in particular, has attempted to measure how athletes respond to various leadership styles (Chelladurai, 1980, 1984, 1985; Chelladurai & Arnott, 1985; Chelladurai & Carron, 1977, 1981, 1983; Chelladurai & Saleh, 1978, 1980; Chelladurai, Malloy, Imamura & Yamaguchi, 1987; Horne & Carron, 1985; Terry & Hewe, 1984). Some of these studies examine perceived leadership behavior, others look at preferred leadership behavior.

The distinction between a coach's behavior as perceived by members of the team and the same behavior as preferred by the same members arose in the course of Hendry's research (1968, 1969). He noted discrepancies in participants' responses that could best be accounted for by postulating a blurring between what members say their coach is doing and what they wish he or she were doing. The athlete's preference for coaching behavior appears to provide guidelines for what coaches might do to be more effective.

In application of the rationale, Chelladurai and Carron (1983) investigated how a group's athletic maturity affected their coaching behavior preference patterns. The authors explicitly defined athletic maturity as a function of age. They tested four maturity levels: (a) high school midgets, (b) high school juniors, (c) high school seniors, and (d) university athletes. However, in reporting their research, they wondered whether, by having limited their own study to only four levels of athletic maturity, they had adequately operationalized the concept of athletic maturity.

Chelladurai and Carron (1983) thereupon proposed three ways in which subsequent research regarding preferred leader behavior could test theories of leadership more adequately than the research they themselves were reporting. First, the research could examine a wider range of ages for athletic maturity than the four age levels from mid-teens to early twenties that they themselves had tested. Second,

since samples must be cross-sectional (longitudinal samples not being a viable option), samples in a given sport should include the full range of persons competing or participating. Finally, researchers should develop leadership scales that are specific to sports instead of using scales originally developed for business leadership and then adapting them for sports. These scales should also differentiate between sports, most importantly open/closed and independent/interdependent.

The present study concentrates on remedying these three inadequacies in tests of current theories of leadership. This research focussed specifically on preferred leadership. The cross-sectional research reported here surveys swimmers of both sexes across an age-range of more than thirty-five years and displaying varying athletic ability. A scale designed to measure sport-specific behaviors (Chelladurai & Saleh, 1978, 1980; Appendix A) was adapted to measure behavior specific to swimming (Appendix B).

Statement of the Problem

The purpose of this study was to test how age, sex, and level of skill level affect the preference of individual swimmers for the behavior of their coaches, in accordance with Chelladurai and Carron's proposals (1983) for a sport-specific optimum test of Chelladurai's theory (1980) of

effective leadership. The following three hypotheses were investigated in this study.

Hypotheses

1. Age and Preferred Leadership. There is no significant linear correlation between age and preference of swimmers for any of the following specific leader behaviors: (a) autocratic behavior, (b) democratic behavior, (c) training and instruction, (d) social support, and (e) positive feedback.

2. Sex and Preferred Leadership. There is no significant relationship between the sex or preference of swimmers for any of the following specific leader behaviors: (a) autocratic behavior, (b) democratic behavior, (c) positive feedback, (d) social support, and (e) training and instruction.

3. Skill Level and Preferred Leadership. There is no significant relationship between average time or category elite/non-elite swimmers for any of the following specific leader behaviors: (a) autocratic behavior, (b) democratic behavior, (c) positive feedback, (d) social support, and (e) training and instruction.

Limitations of the Study

The following factors limit the researcher's ability to generalize the findings:

1. The study was confined to a comparatively small sample, 424 swimmers, although the sample was approximately equally divided by sex.

2. Only competitive swimmers, not recreational swimmers, were included as subjects.

3. The subjects were selected from only four geographic regions; i.e., New England, Mid-Atlantic, South, and Midwest.

4. All swimmers who responded fully to the questionnaire were used as subjects. The researcher did not randomly select from among respondents.

5. The only measure used for determining preferred leadership behavior was Chelladurai's Leadership Scale for Sport (1980) (Appendix A) adapted to focus specifically on swimming (Appendix B).

Assumptions

It was assumed that males and females of the same age are comparable in their preference for specific leadership factors and that preferences of mature athletes indicate

significant leadership factors more reliably than preferences of younger athletes.

Definitions of Terms

The following terms are used in this study in accordance with the following operational definitions.

A competitive swimmer is any person who currently belongs to and competes within an organized swimming program.

An elite swimmer is any person who has achieved a AAAA time-standard in his or her age group, a Masters Top-10 cut-off time, or has qualified for NCAA's.

Leadership style refers to the specific behaviors a leader uses to influence individuals, members of a group, or the group as a whole.

Preferred leadership behavior is behavior preferred by individual members of the group being led. In this study it refers to one or all of the following five dimensions of coaching behavior defined by the Preferred Version of the Leadership Scale for Sports (Appendix A), (Chelladurai & Saleh, 1978, 1980) as modified for swimming (Appendix B):

- (a) autocratic behavior, (b) democratic behavior,
- (c) positive feedback behavior, social support behavior, and
- (e) training and instruction behavior.

Autocratic behavior. The coach makes decisions without

consulting members of the team and requires obedience to his personal authority (Questions 6,12,27,34,40).

Democratic behavior. The coach encourages the athletes to participate in decisions pertaining to group goals, practice methods, and game tactics and strategies (Questions 2,9,15,18,21,24,30,33,39).

Rewarding (positive feedback) behavior (PF). The coach recognizes and rewards each athlete's good performance (Questions 4,10,16,28,37).

Social Support behavior. The coach displays concern for the welfare of individual athletes, for positive group atmosphere, and for warm interpersonal relations with members (Questions 3,7,13,19,22,25,31,36).

Training and Instruction behavior. The coach emphasizes and facilitates hard and strenuous training to improve the performance of the athletes; instructs them in the skills, techniques and tactics of the sport; clarifies the team relationship among the members; and structures and coordinates the members' activities (Questions 1,5,8,11,14,17,20,23,26,29,32,35,38).

Younger Swimmers. The United States Swimming Association classifies swimmers between ages 9 and 18 into the four levels, 9-10 yrs, 13-14 yrs, and 15-18 yrs.

Masters Swimmers. The Masters Swim Association classifies swimmers into five categories by 5-year intervals

beginning at age 25. The fifth category is an open category for age 45 upward.

College-Age Swimmers. College-age swimmers are grouped by college classes into four categories for ages 19 through 22. Any 18-year old freshmen were analyzed with the college students.

Significance of the Study

If swimmers' preference for their coach's behavior is related in specific ways to their age, sex, and skill level, then it would be beneficial for coaches to vary the factors of their leadership behavior accordingly as the age, sex, and skill levels of the members of their teams vary. Individual swimmers, the team as a whole, and the coach can all gain by knowing whether Chelladurai and Carron's proposal (1983) provide an optimal test for Chelladurai's influential, but as yet unsupported theory (1980) concerning effective sport leadership. Among all the sports, swimming will thereby be one of the first to provide specific sport evidence related to Chelladurai's theory about the interrelationships among situational characteristics, leader behavior, and member preferences.

CHAPTER 2

REVIEW OF THE LITERATURE

The present study was designed to investigate a proposal by Chelladurai and Carron (1983) that a fully adequate test of current leadership theories would require examining the theories over a wide range of age and skill levels for both genders, in specific sports, using a measure especially adapted for the sport. The present chapter is divided into four sections. The first traces the theoretical background preceding Chelladurai and Carron's (1983) proposal. The second discusses the development of The Leadership Scale for Sport. The third section reports on and analyzes studies examining differences between the ways participants perceive the behavior of their coaches and the kinds of behavior they prefer their coaches would exhibit. A summary section draws together the research, particularly that of Chelladurai, that provided the basis for the present study.

Theoretical Background

The main theories concerning leader behavior in sport have evolved from leadership theories in business management, partly because there are a few similarities

between sport and business (Hersey & Blanchard, 1977, House, 1971, Hunt & Liebscher, 1973). Some of the central terms used in sport are business terms, and theories about sport describe their context as though it were that of a business. In a sport, as in a business, the leader has managerial duties; e.g. organizing, planning, evaluating, budgeting, and scheduling. The leader also has interpersonal duties of inspiring the team, settling disputes, as well as recognizing, and rewarding the performance of individuals. The nature of the organization defines many of these duties and expectations (Chelladurai & Saleh, 1980). For example, a different set of expectations is placed on the professional football coach than on the pee-wee football coach, requiring each to act in a manner different from that of his/her colleague.

There are major differences between business and sport (Chelladurai & Saleh, 1978, 1980). In business, a leader may work on a project side by side with subordinates. In sports, while a coach is "in the trenches" with the athletes so far as winning and losing go, coaches do not actually participate in the game. Business people train for a comparatively short time, spending most of their time in actual work. Athletes spend many hours preparing for, but only a small amount of time participating in, the contest. Swimming is a good example. A sprint free-styler will practice five hours a day, six days a week, to compete for

less than 24 seconds in one event and 51 seconds in another. The total time spent competing in an entire meet may not exceed three minutes. Business people also tend to stay with the same organization for many years. In most sports, athletes often switch teams, for reasons irrelevant to business. Players move between age-groups, pee-wee to junior high to high school ball. The season, often short, dictates the availability of different sports, for example, field hockey to basketball to lacrosse (Chelladurai & Saleh, 1978).

Sports leaders and business leaders are also chosen in different ways. A leader has an "easier" task when chosen by the membership (Fiedler, 1971). An elected chairperson, for example, could expect support from a majority of the group because the majority voted for him or her. It is also "easier" to be a leader when the position has power. However, in sport, the leader is selected by the organization and membership on the team may not always be voluntary. Some athletes may decide to attend a certain college because of the coach, but only in college athletics do they have that choice. Professional athletes play for the team that drafts them. According to business theory, this nonvoluntary membership puts the coach at a disadvantage. However, in other ways, coaching could also be considered an "easy" leader position. It is high in

power, very structured, and all members of the team agree on the goal and how to achieve it.

Leader, team, and situation are the three elements that, when they all mesh together, may be the ideal way for athletics to function, as Feidler (1971) says, but how that ideal arrangement comes about is still not fully understood. Until very recently, the main focus of research has been on only one of the three elements, traits and styles of the leader.

There have been three schools of thought about how a leader influences behavior. **Trait** (Chelladurai, 1985) theorists believe that all great leaders probably possess a certain set of identifiable traits whose presence in a given individual could be revealed with a properly designed scale. The evaluation would point out areas of weakness which, when improved, would turn the person into a great leader. This theory has been more or less abandoned because no universal set of traits has yet been found.

Behavioral theorists deal with the behaviors of the leader. Studies at Ohio State (Hemphill & Coons, 1957, Stogill & Coons) and at Michigan State (cited in Chelladurai, 1985) independently identified two dimensions of leader behaviors that were relevant to influencing the behavior of subordinates.

The Ohio State studies termed the first of these "consideration," defined as the "leader behavior that

reflects a leader's concern for a member's well-being, and a concern for warm and friendly relations within the group" (Chelladurai, 1985). The second dimension, "initiating structure," was defined as "leader behavior that reflects a leader's concern for clarifying the roles for both the leader and the members, and a concern for effective performance of the group's tasks" (Chelladurai, 1985).

However, certain implications of the theory could not be confirmed by the study. For example, someone who tested high on both dimensions would be expected to be more successful than someone who tested high on one but low on the other. This was not a finding. The general belief was that the situation in which leadership occurs has an effect that the theory does not take into account. These two dimensions were therefore inadequate as an explanation for leadership (Chelladurai, 1985).

The first of the two dimensions of leadership behavior identified by the Michigan State studies was called "employee-centered leadership style", and was similar to Ohio State's "consideration style," in that both are concerned with the "human relations" part of leadership (Chelladurai, 1985). The second, "job-centered style," similar to Ohio State's "initiating-structure" dimension, was concerned with the technical side of leadership. Michigan State's findings were similarly counter to expectation: a higher score on either variable resulted in

greater success. They also found that increased emphasis on job-centered style resulted in more resentment from the group.

Other studies have found as few as two and as many as nineteen dimensions of leader behavior (Hemphill & Coons, 1957, Chelladurai & Saleh, 1978, 1980, Cattell & Eber, 1970, Yukl, 1981), but none have so far demonstrated a predictable relationship between the two dimensions and group performance.

Situational theories arose through criticism of these behavioral studies, which were seen as not only failing to differentiate between different types of decision making (autocratic and democratic, task and interpersonal), but also as failing to take into account how the situation affects leadership style.

Situational theories view leadership as a combination of "the leader, the members, and the organizational context in which they operate" (Chelladurai, 1985). Each factor has a relationship to the others and cannot be viewed in isolation.

One of the earliest situational theories was Fiedler's Contingency Model of Leadership (1971). The theory suggests that a leader's style is a distinct personality trait that may vary slightly from situation to situation but will be consistently displayed. Fiedler also believed that situations were either "favorable" or "unfavorable." Where

the leader is respected and has power over the members, and where the task is well-defined, the situation is more favorable than when the reverse is true. Situational favorableness is on a continuum ranging from high-to-low depending on good-to-poor leader-member relations, high-to-low task structure, and a high-to-low position of leader power. Fiedler (1971) maintained that the leader's effectiveness depends on how the leader's style matches the preferences of the members. In situations of either very high or very low favorableness, leaders with high task-orientation were more effective while in situation of moderate favorableness employee-oriented leaders were most effective.

Fiedler (1971) draws two conclusions from this model. First, any leadership style can be successful. The important thing is to decide what the leader's style is, then match the leader to the type of situation where that style will succeed. Second, because the leader's personality cannot be changed, efforts should be directed at changing the situation.

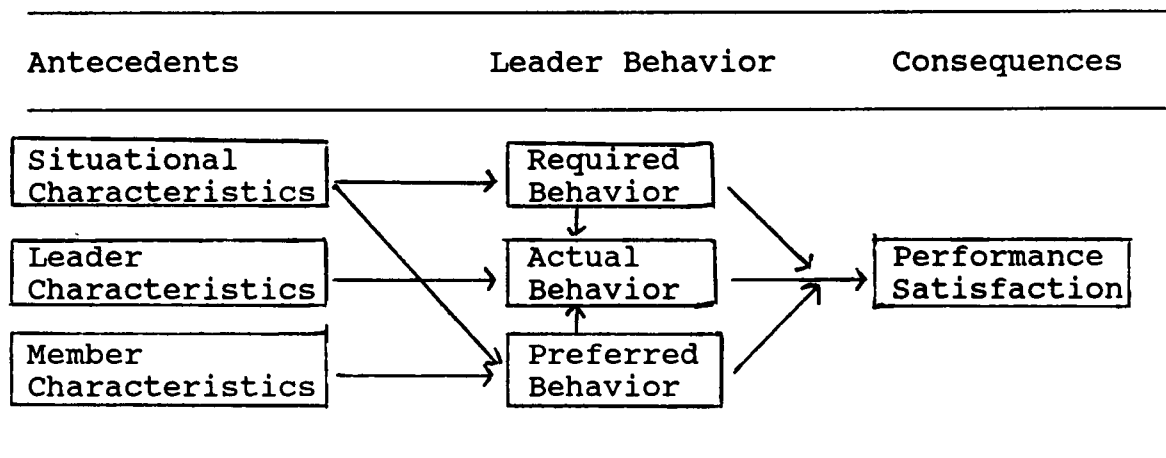
In contrast to Fiedler's conclusions, House's Path-Goal theory (1971) suggests that leaders can change their styles to match the situation. According to House, the leader's influence on the group depends on how effectively he or she supplies the group with pay-offs. If pay-offs are readily available, the leader's role is secondary. If pay-offs are

better attained with the leader's assistance, he/she will have an effect on group motivation. The leader's influence is also affected by the personalities of the members (House, 1971; Evans, 1970).

Chelladurai's Multidimensional Model of Leadership (1980) attempts to incorporate the Ohio State dimensions of "consideration" and "initiating structure" into a sport setting. He uses "stroking" interchangeably with "consideration." How the coach balances these two types of behavior depends upon his or her type of personality.

A coach's "ability" also affects the behavior displayed. "Ability" has three components. The coach's knowledge of rules, the latest techniques, and so on constitute the **technical** component. The coach's ability to analyze the situation and produce a solution, for example, knowing when and how to switch defenses, is the **conceptual** component. Finally, the coach's ability to motivate the team and keep harmony constitutes the **human relations** component. Chelladurai's model of effective leadership (1980) consists of seven interdependent schematized dimensions (Table 1). Among antecedents for "states" of leader behavior, situational characteristics consist of organizational requirements, the nature of the task, group size, and so on. These characteristics affect both required and preferred leader behavior. Leader characteristics are those of the leader's personality and they consist of what

Table 1
A Multidimensional Model of Leadership



Chelladurai calls "reactive" behavior and "adaptive" behavior. They affect the leader's actual behavior. The personalities of the members as a group establish a set of preferences for leader behavior (Chelladurai, 1980).

Among states of leader behavior, required behavior is influenced by the organizational system. The organization's goals and objectives, as well as the rules and regulations, may dictate behavior patterns for its leader that he or she cannot change. Preferred behavior is influenced by the characteristics and abilities of the members. A member not interested in what the organization considers a reward, or one who finds the test intrinsically motivating, will have different preferences from other members (Chelladurai, 1980).

The consequences of the combined antecedents for, and states of, leader behavior are performance and satisfaction. If all factors are balanced, required behavior, actual behavior, and preferred behavior will be positively related to performance and satisfaction.

Chelladurai (1980) drew three general conclusions from the model. First, the two dimensions of leader behavior supplement one another; the leader can provide consideration and initiative structure when/if subordinates need them. Second, the leader's functions become redundant and/or ineffective when such needs are fulfilled by other factors. And finally or last, the leader's activities are constrained and controlled by factors relating to the wider organizational system. In summary, leadership is more important in some situations than in others.

Casting about for a fruitful way of schematizing leadership situations, Chelladurai came upon Blanchard and Scott's research (1969; cited in Chelladurai, 1980) which categorizes organizations in terms of those who primarily benefits from the groups efforts. In effect, the authors have proposed a criterion for the level of competitiveness in the organization. In mutual-benefit associations, the primary beneficiary is the membership. In business concerns, the owners are the prime beneficiary. In service organizations, the client group is the prime beneficiary. In commonwealth organizations, the prime beneficiary is the

public at large. Each kind of organization requires a different leadership style. The appropriate style of leadership in sport would depend on the type of sport, whether the athletes were competitive or recreational, and on the level of the program intensity. Low-intensity competitive teams require different coaching than the high-intensity recreation teams of intramural sports.

In light of the various levels of competition each kind of organization requires, Chelladurai (1980) proposes the appropriate leadership style:

1. A democratic-considerate leadership style is appropriate in mutual-benefit associations.
2. A structuring leadership style is appropriate in business concerns.
3. A "minimum-interference" leadership style is appropriate in service organizations.
4. A high-structuring leadership style is appropriate in competitive sports.
5. A low-structuring leadership style is appropriate in recreational sports.
6. A high-structuring and high-considerate leadership style is appropriate in coaching university athletic teams.
7. A low-structuring and high-considerate leadership style is appropriate in coaching juvenile athletic teams.
8. A low-structuring and low-considerate leadership style is appropriate in coaching professional teams.

(Chelladurai, 1980,p.228-230)

Leadership Scale for Sport

One hundred and sixty physical education students at a Canadian university answered a 99-item questionnaire that Chelladurai and Carron (1980) developed from four earlier

versions. In this first test of the Leadership Scale for Sports (LSS), each item was prefixed by the phrase: "The coach should" The item itself was a description of a specific behavior. The respondent marked his or her preference for the behavior from among five choices; i.e., always, often, occasionally, seldom, never. When the data was analyzed, meaningful responses clustered among five leadership factors: (a) training, (b) democratic behavior, (c) autocratic behavior, (d) social support, and (e) rewarding behavior later called "positive feedback." Thirty-seven of the 99 items represented these factors. Later, the researchers noted that none of the items tested instruction, the teaching of the skills. They decided to add seven more items to test instruction and/or training. Six additional items concerning social support were included. Percentage figures were then assigned to the choice categories to provide a common meaning for the responses (always = 100%, often = 75%, occasionally = 50%, seldom = 25%, never = 0%).

The questionnaire, thus revised, was given to a new sample of 102 physical education students and 223 male varsity athletes. The physical education students were asked to respond to the items when prefixed by the phrase "I prefer my coach to" (the Preference Version). The athletes were asked to respond to the same items when prefixed with "My coach" (the Perceived Version).

Internal consistency and reliability were calculated for each subscale and found to be satisfactory. Internal consistency ranged from 0.45 to 0.93 (mean = 0.77). Reliability ranged from 0.71 to 0.82 (mean = 0.76).

To test the applicability of the LSS to high school sports, the same questionnaire was given to 54 high school athletes. The results were significant ($p < .001$), thus supporting its applicability to high school sports. Internal consistency was for the leadership factors was: training and instruction, 0.83; democratic behavior, 0.68; social support, 0.77; positive feedback, 0.78; and autocratic behavior, 0.48, which the authors call "low" (Chelladurai & Carron, 1980).

Preferred/Perceived Leadership

The six studies reported examined leadership factors as perceived and as preferred by participants. The first two studies reported dealt with perceptions of athletes and coaches. The next two studies examined preferred leader behavior. The final two studies utilized both perceived and preferred leader behavior.

Perceived Leader Behavior

Bird (1976) suggests that the coach, as leader, should be capable of affecting the cohesion of the group, and that

team structure and level of competition will also affect the coaching style to be used. Bird suggests that if players' and coaches' perceptions of cohesion are an indicator of leader-member relations, then it can be hypothesized that winning teams would have greater team cohesion than losing teams and a task-oriented coach instead of a person-oriented one.

The subjects were the top two and bottom two teams in division I and division II of Southern California's Women's Intercollegiate Athletic Conference volleyball teams. Data were analyzed by a 2 x 2 x 2 multivariate analysis of variance (MANOVA) with three factors, respondents (player/coaches), team success (winners/losers), and level of competition.

Bird's hypothesis was supported by her study. Bird also noted that while past studies have sampled only male subjects, her study sampled only female subjects. Bird (1976) suggested that the hypothesis was generalizable across sexes.

The theoretical bases for Von Strache's study (1979) were both House's (1971) Path-goal Theory and Hersy and Blanchard's (1969, 1972) life-cycle theory. Briefly, these theories state that leader behavior requires less structure and less emotional support as maturity levels increase. Specifically, as age, education level, and program intensity increase, leadership would progress through four levels:

(a) a highly structured, task oriented leadership style low in emotional support; (b) a highly structured, task oriented leadership style high in emotional support; (c) a less structured leadership style high in emotional support; (d) a less structured leadership style low in emotional support (Vos Strache, 1979).

Vos Strache's study compared the relation between perceptions of the leader and the following characteristics of the players: (a) their win/loss record, (b) whether they were starters or non-starters, (c) their education level. He hypothesized that seniors would prefer less structure and support than freshmen, and that starters and winners would perceive their leader as motivating them more fully.

The subjects consisted of 390 collegiate female basketball players who answered two questionnaires, one which determined how the players think the coach should behave; and the other determined how the players actually see their coach behave. The analysis of variance on (status x record), 2 x 4 (status x educational level) and 2 x 4 (record x educational level).

The results showed that losers perceived their coaches to be more tolerant of uncertainty than winners perceived their coaches to be. However, winners perceived their coaches as being persuasive and as emphasizing results, while loser perceived less of such behavior in their coaches. Team success had no affect on the players'

perception of ideal leader behavior. In addition, there was no relationship between skill level of players and perception of actual leader behavior. Finally, younger players preferred their coach to be a strong problem-solver.

Preferred Leader Behavior

Chelladurai & Saleh (1978) examined the following independent variables for their effect on preference for leader behavior: gender, dependence (team interdependence/individual independence), and variability of the sport (closed/open). The subjects were 160 physical education students at a Canadian University, all of whom participated in a sport, which was classified according to dependence and variability. Behavior preferences were evaluated by a 99-item questionnaire similar to the Leadership Scale for Sports.

Results indicated that subjects who chose interdependent sports had higher preferences for training and instruction than those who chose independent sports. The same was true for subjects who chose closed sports rather than open sports. Males who chose closed sports preferred more supportive behavior than females who chose open sports. Males also preferred more autocratic behavior while females preferred democratic behavior (Chelladurai & Saleh, 1978). Chelladurai & Saleh (1978) concluded that

athletes in different sports prefer different styles of coaching.

Chelladurai and Carron (1983) examined the relationship between athletic maturity (skill level) and preferred leadership. The subjects were 262 basketball players from four levels of playing ability and age groups or ages. The athletes completed the Preferred Leadership version of the Leadership Scale for Sports, and linear trend analysis was applied to the results. Hersy and Blanchard's theory (1969, 1977) and the Chelladurai and Carron's modified theory (1978) were tested. Results showed that athletes' preferred decreasing levels of training and instruction as their maturity levels increased, until they reached university level. Here the direction changed: the athletes again preferred high levels of training and instruction. In the area of social support, more experienced athletes preferred higher levels than less experienced athletes.

Chelladurai and Carron (1983) suggested that a future study to more truly test current leadership theories crossing all ages and abilities in a given sport and using a sport specific measure is needed.

Swim Studies

In the final two studies Hendry (1968, 1969) asked swimmers and coaches to define their "ideal" swim coach by using a common vocabulary imposed by the Cattell 16 personal

factor questionnaire (Cattell, Eber, & Tatwuaka, 1970). In the 1968 study, the swimmers were asked to describe their present coach, and the coach was asked to describe herself/himself. This was compared to the ideal coach each group had designed. Both groups seem to agree on the ideal coach, but the swimmers seemed to express an element of wishful thinking when dealing with their current coach (Hendry, 1968).

In the second study, Hendry (1968) decided to look at the ideal coach in an effort to eliminate wishful thinking. The top 30 coaches were selected and given Cattell's 16 P.F. These results were compared with a profile of the "ideal" coach as described by 48 coaches of national reputation. Thirty top swimmers were asked to assess this ideal coach.

The "ideal" coach, as described by the 48 top-rated national coaches, was not at all similar to the 30 coaches' descriptions of themselves. Those results suggested that coaches play a role when they coach so that they will behave as the ideal coach behaves. The coaches also tended to ignore some of their own negative behavior in their self-evaluation (Hendry, 1969).

Summary

The studies reviewed in this chapter traced the progression from leadership theories in management through

the development of leadership theories in sport, with particular attention to the adequacy of evaluating leadership theories in sport. The studies provide theoretical justification for the present study, which was conducted to offer a more adequate test of the influential leadership theory of Chelladurai by examining a wide range of age and skill levels for both genders in a specific sport, swimming, using a measure especially adapted for the sport.

CHAPTER 3

PROCEDURE

The purpose of this study was to provide a more adequate test of preferred leadership behavior by examining the effects of sex, age, and athletic skill for their effects on athletes' preferences for their coaches' behavior in a specific sport. Steps in the procedure included (a) selection of subjects, (b) selection of the testing instrument, (3) method of testing, and (4) analysis of data.

Selection of Subjects

The subjects for this study were 424 swimmers divided approximately equally by gender and by age, of varying skill levels (81 were elite swimmers, 343 were non-elite swimmers), and representing 18 states within four geographic regions.

The sample was obtained with the assistance of seventeen swim coaches, to whom 597 questionnaires were distributed. Sixteen of the coaches returned questionnaires on 424 swimmers, only 406 of whom responded to all questions. The sample was split almost evenly by sex, containing 206 females and 211 males. The subjects were classified in accordance with standard age categories for

United States Swim Association, the four college classes, and United States Masters Swimming (Table 2).

Geographic Region

The subjects represented four geographic regions of the United States (Table 3): New England (22 from 5 states); Mid-Atlantic (156 from 5 states); the South (151 from 5 states), and the Midwest (18 from 3 states). Subjects not responding = 59.

Skill Level

Eighty subjects, or twenty percent of respondents, were classified as elite in accordance with a separate time-criterion for each of the three age-groups (younger, college, masters) (Table 4). The standard for each group varies yearly. Younger elite swimmers (9-18 years) matched the 1986 AAAA time for their gender. College swimmers (19-22) matched the qualifying time for entry for their gender in the 1986 NCAA championships. Masters swimmers matched 1986 Top 10 times for their gender and age-grouping. All swimmers reported their times for the respective events; the researchers then compared the reported times with those of the relevant standards, thereupon labelling each swimmer "elite" or "non-elite."

Table 2
Distribution of Subjects by Age

Age Grouping	No. of Subjects
U.S.S.A. Categories	
9 - 10	59
11 - 12	64
13 - 14	41
15 - 18	78
	242
College	
19 (Freshmen)	35
20 (Sophomores)	38
21 (Juniors)	24
22 (Seniors)	9
	106
Masters	
25 - 29	25
30 - 34	14
35 - 39	15
40 - 44	8
Open (45 -)	14
	76
Total Subjects	424

Table 3
Distribution of Subjects by Geographic Region

Region (State)	No. of Subjects (Region)	Total
<u>New England</u>		22
Connecticut	7	
Massachusetts	4	
New Hampshire	3	
Rhode Island	2	
Vermont	6	
<u>Mid-Atlantic</u>		156
Delaware	12	
Maryland	11	
New Jersey	37	
New York	3	
Pennsylvania	93	
<u>South</u>		151
Alabama	22	
Florida	10	
Georgia	10	
Tennessee	102	
Texas	7	
<u>Midwest</u>		18
Illinois	1	
Indiana	1	
Ohio	16	
<u>Not Responding</u>		59
Total Subjects =		406

Table 4
Distribution of Subjects by Skill Level

Skill Category	Age Category	No. of Subjects
Achieves 1986 AAAA time	9 - 10	5
	11 - 12	8
	13 - 14	4
	15 - 18	19
		36
Qualifies for 1986 NCAA's	Freshman	5
	Sophomore	10
	Junior	7
	Senior	5
		27
Achieves 1986 Top-10 Times	25 - 29	8
	30 - 34	3
	35 - 39	1
	40 - 44	2
	45+	4
		18
Total Subjects:		81
343 Non-Elite		

Selection of Instrument for Testing

The instrument forming the basis for this study was the Preferred Version of the Leadership Scale for Sports (Chelladurai & Saleh, 1980) (Appendix A). The scale was designed to measure preferences of individual athletes for specific behaviors of their coaches. The scale lists 40 items, each a verb-phrase, each describing a specific sports-coaching behavior and each prefixed by the phrase "I prefer" The respondent is asked to choose one term (from among five) that describe how frequently he or she prefers the coach to exhibit the item of behavior. The five terms describing frequency, together with percentages assigned by Chelladurai and Saleh to standardize responses, are: (a) Always (100%); (b) Often (75%); (c) Occasionally (50%); (d) Seldom (25%); and (e) Never (0%). An example of an item is: "I prefer my coach to ask for the ideas of the swimmers about meet line-ups." If the swimmer chooses "occasionally", it means that the swimmer prefers that specific behavior about half the time.

Chelladurai & Saleh (1980) categorize each of the 40 items as an instance of one of the following five dimensions of leader behavior: (a) autocratic behavior, (b) democratic behavior, (c) rewarding behavior, (d) social support behavior, and (e) training and instruction behavior. Cronbach's Alpha Coefficient of reliability (Table 5) shows

Table 5

Internal Consistency of Leadership Scale for Sport*
(Athletes Preferred Version)

Subscale	Internal Consistency (%)
Autocratic Behavior	.45
Democratic Behavior	.75
Positive Feedback Behavior	.82
Social Support Behavior	.70
Training and Instruction Behavior	.83

*Chelladurai & Saleh (1980)

the reliability for Chelladurai & Saleh's (1980) LSS to be high for all dimensions except autocratic behavior. This exception suggests that the behaviors described are unfamiliar to the swimmer or that the phrases describing the behavior are not clear.

Refinements to the Instrument

In a preliminary pilot study (Dix, 1986), the LSS was refined in two ways so that responses would be appropriate

to (a) the specific sport, and (b) the expanded range of ages tested.

First, sports-neutral terminology was replaced with swimming terminology whenever necessary. Then, inclusion of the youngest age-group (ages 9-10) in competitive swimming as the study's lower boundary required changes in terminology that would accommodate the vocabularies of younger swimmers. Next, six 9- and 10-year-old swimmers were asked to read the 40 items of the LSS, Preferred Version, and to circle any word they could not read or did not understand. A dictionary for school students was then used to substitute for any words that offered difficulty. The revised questionnaire (Appendix B) was then sent to Dr. Paul Chelladurai, who commented that the revised LSS would provide a test equivalent to the original LSS (Appendix A) for the same five factors. The revised questionnaire (Appendix B and Appendix F) was then given to additional 9- and 10-year old swimmers. Their ability to give accurate interpretations for each question provided a final test for the instrument.

Instruments

The Leadership Scale for Swimming (Appendix B) was used to measure the athlete's preference of leader behavior. This scale was designed by Chelladurai and Carron to measure

sport-specific behavior; therefore, it follows Chelladurai's recommendation for a sport specific measure. This is also the scale originally used to test the Modified Situational Leadership Theory (Chelladurai & Saleh, 1978, Chelladurai & Carron, 1983).

The scale had previously been tested only for high school and college athletes (Chelladurai & Saleh, 1978; Chelladurai, Mallory, Imamura, & Yamaguchi, 1987; Chelladurai & Carron, 1981; Chelladurai & Carron, 1983; Horn & Carron, 1984; Terry & Howe, 1984) so it was necessary to modify it for the younger swimmers, and also modified to use terminology specific to swimming (Dix, 1986).

Method of Testing

To insure equal treatment of all subjects by the seventeen coaches who were solicited to administer the instrument in their widely separated communities, the researcher sent all coaches an identical packet of information. The packet included: (a) a set of standardized instructions to be read aloud to each group, (b) an explanation of the study's purpose, and (c) a statement on how the data would be used (Appendix C). Within a few days of receipt, the researcher telephoned each coach to answer questions and to assure the coach's understanding of his or her role.

Before administering the questionnaire (Appendix F), and Leadership Scale for Swimming (Appendix B), coaches of swimmers in the younger age-group (ages 9 through 18) sent letters to their parents requesting their informed consent (Appendix D). A swimmer whose parent did not sign and return the form was not permitted to complete a questionnaire or the Leadership Scale for Swimming.

Minutes before the questionnaire was to be administered, the remaining swimmers were asked to read the consent form (Appendix E). The coaches also read the form aloud, then invited questions, to insure that the swimmers understood it before signing it. Swimmers unwilling to sign were permitted to leave.

All testing was conducted between January and July, 1987. The subjects met as groups. Each subject spent approximately 25 minutes completing the questionnaire.

Sixteen coaches returned questionnaires on 434 swimmers. Of the 434 questionnaires, 424 contained responses to all 40 items, including age and skill level. However, seven of these respondents did not identify themselves by sex and were excluded. The total number of questionnaires used in the section of the study relating to sex was 417.

Data Analysis

The objective of the study was to follow Chelladurai's (1983) procedure for testing the Preference Version of his own (1979) contingency model for leadership in athletics. However, in addition to testing skill levels of the four age-groups (from mid-teens to early twenties) to which his 1983 study was limited, the present study tested skill levels of both sexes from age 9 to age 44 and upward, a 35-year span of age groups covering teams and individuals in 18 states within four geographic regions.

Data were analyzed in order to establish: (a) whether a swimmer's age significantly relates to his or her preferences for specific leader behavior, as specified by Chelladurai's (1980) five dimensions of leader behavior; (b) whether a swimmer's sex significantly influences his or her preferences for these same specific leader behaviors; and (c) whether a swimmer's skill level significantly influences his or her preferences for these coaching behaviors. Statistical tests were run in order to determine whether the dependent variables of age, sex, and skill level were linearly related to the independent variable of preference for specific leader behavior.

Cronbach's alpha coefficient of reliability was used so that the results would correlate with those of Chelladurai and Carron's study (1981). Pearson's product moment

correlation was used to ascertain any covariance in the factors of age, sex, and elite status.

CHAPTER 4

RESULTS

The present study was conducted in order to provide a sport-specific optimum test of Chelladurai's theory (1980) of effective leadership. In accordance with the suggestions of Chelladurai and Carron (1983), statistical tests were calculated to investigate the effects of age, sex, and skill level on swimmers' preference for their coaches' specific leader behaviors. Data were collected and evaluated in order to determine whether relationships existed between swimmers' preferences for the leader behaviors and the swimmers' age, their sex, and their skill level.

Four hundred and twenty-four swimmers, divided equally by sex, approximately equally by age, of varying skill levels, and representing 18 states within four geographic regions responded to a scale that measured their preference for the following five factors in their coaches' leadership behavior: autocratic behavior, democratic behavior, positive feedback, social support, and training and instruction. This scale was modified from the Preferred Version of the Leadership Scale for Sport (Chelladurai & Saleh, 1980) to accommodate the youngest swimmers and to use the vocabulary of swimming (Dix, 1986).

The Pearson product-moment correlation technique was

utilized to determine whether the swimmers' preferences for specific leader behaviors were related to their age. The students' t-test was used to determine: (a) whether there were sex differences for the swimmers' preferences for specific leader behaviors; and (b) whether there were skill level differences for swimmers' preferences for specific leader behaviors. The results of the study are set forth in the following section, and then summarized in a final section.

Relationships Testing the Model

Relationships Between Preferred Leader Behaviors and Age

Three of the five scores representing the leadership behaviors preferred by the swimmers were significantly related ($p < .05$) with age (Table 6). Preference scores for training and instruction; democratic behavior; and positive feedback were significantly correlated with age; while scores for social support and autocratic behavior were not significantly related to age. Therefore, Hypothesis 1, as it pertained to democratic behavior, training and instruction, and positive feedback, was rejected. However, the segment of Hypothesis 1 that pertained to autocratic behavior and social support was not rejected.

Table 6

Correlation of Age with Preferred Leader
Behavior Dimensions

	r	p
Autocratic	.00	.49
Democratic	-.13	.01
Social Support	.08	.07
Positive Feedback	.12	.01
Training and Instruction	.09	.04

*p ≤ .05, df = 415

Preferred Leader Behaviors and Sex

Three of the five scores representing the leadership behaviors preferred by the swimmers were significantly related to sex. Statistical analysis (t-test) of preference scores for democratic behavior, autocratic behavior, and training and instruction produced significant sex differences (Table 7). There were no sex differences for the leader behavior dimensions of social support and positive feedback. The leader behavior relationships ($p < .05$) to sex indicated: (a) the male swimmers preferred more autocratic coaching behavior than female swimmers, (b)

Table 7
Male vs Female Swimmers for Preferred
Leader Behavior Dimensions

	Male	Female	t
Autocratic	M 13.02	12.25	2.20 *
	s 3.77	3.35	
Democratic	M 28.77	29.87	-1.820*
	s 6.61	5.68	
Social	M 25.46	25.61	-.296
Support	s 5.50	4.81	
Positive	M 20.04	20.01	-.199
Feedback	s 3.82	3.32	
Training and	M 48.03	48.87	-1.207*
Instruction	s 7.46	6.70	

*p ≤ .05, df =

the females preferred more democratic coaching behavior than the males, and (c) the female swimmers preferred more training and instruction behavior than the males (Table 7). Therefore, Hypothesis 2 was rejected for autocratic behavior, democratic behavior, and training and instruction. The segments of Hypothesis 2 that pertained to social support and positive feedback were not rejected.

Preferred Leader Behaviors and Skill Level

Four of the five scores representing the leadership behaviors preferred by the swimmers were not significantly related ($p > .05$) to skill level. Statistical analysis (t-test) of preference scores for autocratic behavior, democratic behavior, positive feedback and for training and instruction produced no significant difference between elite and non-elite swimmers (Table 8). Preference scores for social support were significantly different between the two skill levels; that is, elite swimmers preferred more social support than non-elite swimmers. Therefore, Hypothesis 3, as it pertained to autocratic behavior, democratic behavior, positive feedback, and training and instruction, was not rejected. The segment of Hypothesis 3 that pertained to social support was rejected.

Summary

The purpose of this study was to follow Chelladurai and Carron's proposals (1983) for an optimum test of Chelladurai's theory (1980) by testing how age, sex, and skill level affect swimmers' preferences for the behavior of their coaches. Three preferred leader behavior factors (positive feedback, democratic behavior, and training and instruction) were found to be significantly ($p < .05$) and linearly correlated with age. That is, swimmers' preference

Table 8
Elite vs Non-elite Swimmers for Preferred
Leader Behavior Dimensions

		Elite	Non-elite	t
Autocratic	M	12.62	12.69	-.168
	s	3.27	3.66	
Democratic	M	29.16	29.30	-.194
	s	5.70	6.28	
Social	M	26.06	25.43	1.028*
Support	s	4.85	5.27	
Positive	M	20.01	20.10	-.207
Feedback	s	3.47	3.63	
Training	M	48.15	48.58	-.466
Instruction	s	7.54	6.97	

*p ≤ .05, df = 422

for positive feedback, and training and instruction increased with age, while preference for democratic behavior decreased as their ages increased. Of the five preferred leader behavior factors, autocratic behavior, democratic behavior and training and instruction were found to be significantly ($p < .05$) related to sex. Specifically, male swimmers preferred a higher level of autocratic behavior than female swimmers; and female swimmers preferred more democratic behavior and more training and instruction behaviors than did the male swimmers. Of the same five preferred leader behaviors, only the factor of social support was significantly ($p < .05$) related to skill level. That is, swimmers' preference for social support increased as their skill level increased.

CHAPTER 5

DISCUSSION

The purpose of this study was to provide a more adequate test of preferred leadership behavior by examining sex, age, and athletic skill for their effects on athletes' preferences for their coaches' behavior in a specific sport. Four hundred and twenty four swimmers, divided approximately by sex, approximately equally by age and of varying skill levels, responded to a scale that measured their preference for the following five factors in their coaches leadership behavior: autocratic behavior, democratic behavior, positive feedback, social support, and training and instruction.

Results were analyzed to determine whether the swimmers' preferences for specific leader behaviors were related to their age, sex and skill level. The discussion includes the results of the present study in relation to previous research and to Chelladurai's theory (1980) of effective leadership.

Preferred Leader Behaviors and Age

Chelladurai and Carron's study (1983) with basketball players indicated a positive correlation between increasing

age and preference for social support. Data analysis for the present study with swimmers revealed no linear correlation between age and social support ($r = .08$; $p = .07$).

Chelladurai and Carron (1983) found a negative correlation between age and basketball players preference for democratic behavior. The present study also revealed a negative correlation between swimmers preference for democratic behavior and age ($r = -.13$; $p = .01$).

Chelladurai and Carron found no significant correlation between age and preference for autocratic behavior. Results of the present study also produced no significant correlation between age and preference for autocratic behavior ($r = .00$; $p = .49$).

Chelladurai and Carron found a progressively linear decrease between increasing age, from high school midget to high school senior, and preference for training and instruction. The preference then reversed, so that beginning at college level, athletes' preference for training and instruction increased with increasing age. The present study found a linear relation between age and preference for training and instruction ($r = .09$; $p = .04$).

Chelladurai and Carron found no significant relation between preference for positive feedback and age. Results of the present study found a significant relation between

age and preference for positive feedback ($r = .12$; $p = .01$).

Thus, there was a discrepancy between the results reported in the present study and the results reported by Chelladurai and Carron on the relation between age and social support, and positive feedback dimensions of preferred leader behavior.

Preferred Leader Behaviors and Sex

Chelladurai and Saleh (1978) found no significant relationship between sex and preference for positive feedback or for training and instruction. The results of the present study did not produce a significant difference between the male and female swimmers preference for positive feedback, but did produce a significant sex difference for training and instruction (Table 7). Female swimmers preferred more training and instruction than male swimmers.

Chelladurai and Saleh found that the male athletes in closed sports preferred a higher level of autocratic behavior than female athletes in closed sports. Data analysis for the present study revealed a similar pattern between the sexes for preference of autocratic behavior (Table 7) with male swimmers preferring a higher level of autocratic behavior than female swimmers.

Chelladurai and Saleh (1978) also reported that

preference for democratic behavior was related to sex, with closed sport females preferring a higher level of democratic behavior than closed sport males. Results of the present study reporting swimmers preferences supported this finding (Table 7).

Chelladurai and Saleh reported that preference for social support was also related to sex with males preferring more social support than females. The present study found no significant relation between sex and preference for social support.

Thus, the present study produced strong support for most of the closed sport findings of Chelladurai and Salah (1978). However, there were also discrepancies between the results reported by Chelladurai and Saleh and the specific results of the present study. These discrepancies provide support for the notion that it is important to assess the preferences of athletes in specific sport settings (Chelladurai & Salah, 1978).

Preferred Leader Behaviors and Skill Level

Statistical analysis (t-test) of the results of swimmers preference scores for autocratic behavior ($t = -.1681$), democratic behavior ($t = -.194$), positive feedback ($t = -.207$), and training and instruction ($t = -.466$) produced no significant skill level differences. Preference

scores for social support ($t = 1.028$) were significantly related to skill level; that is, elite swimmers preferred more social support than non-elite swimmers.

Previous research in this area related to athletic maturity, or years of competition but not specifically to skill level (Chelladurai & Carron, 1983). While this study found that preference for training and instruction, democratic behavior and positive feedback related to athletic maturity, i.e., age in the present study, only social support was related to skill level. This gives strong support to the suggestion of the present study that skill level and athletic maturity are not the same and both need to be studied.

Summary

Even while greatly expanding the range of ages for athletes in order to provide an optimal test of swimmers' preferences for the dimensions of leader behavior, the present study supported Chelladurai and Carron's (1983) findings of: (a) a negative correlation between age and preference for democratic behavior, and (b) no significant correlation between age and preference for autocratic behavior. There was a discrepancy in relating age to preference for training and instruction; the present study found a positive correlation between increasing age and

preference for training and instruction, while Chelladurai and Carron found that athletes preferred less training and instruction each year until the end of their final year in high school, and that they began to prefer increasing levels of training and instruction from the beginning of their first year in college and beyond.

Expanding the range of ages and adding specific skill levels also provided expanded data on sex preferences for leader behavior. The present study supported Chelladurai and Saleh's (1978) findings of: (a) a relationship between sex and preference for autocratic behavior and democratic behavior, and (b) no significant relationship between sex and preference for positive feedback. However, the present study did not support Chelladurai and Saleh's findings positively relating sex and preference for social support. On the contrary, the present study found no significant relationship between sex and swimmers' preference for social support. The present study also found a significant difference for training and instruction with female swimmers preferring more training and instruction than male swimmers. Chelladurai and Salah (1978) found no significant relationship between sex and training and instruction.

The purpose of this study was to follow Chelladurai and Carron's proposals (1983) for an optimum test of Chelladurai's theory (1980) by measuring how age, sex, and skill level affect swimmers' preferences for the behavior of

their coaches. Significant positive linear relationships were found between age and three of the five dimensions of leadership preferred by swimmers; i.e., training and instruction, democratic behavior, and positive feedback. In addition, democratic behavior was negatively correlated with age.

A significant relationship was found between sex and three of the five dimensions of leader behavior, with male swimmers preferring more autocratic behavior than female swimmers. The female swimmers preferred more democratic behavior and training and instruction than the male swimmers.

Finally, a significant relationship was found between skill level and only one of the five dimensions of leadership preferred by swimmers. Elite swimmers preferred more social support than non-elite swimmers.

By providing a wider range of more finely graded data to offer a more adequate test of Chelladurai's (1980) theory, in accordance with Chelladurai and Carron's proposals, the present study has shown unexpected relationships among age, skill level, and sex, on the one hand, and the preferences of swimmers for the behavior of their coaches, on the other. These studies strongly indicate that coaches should consider the age, sex, skill level and type of sport in which the athlete is

participating when deciding on the most appropriate coaching behaviors.

CHAPTER 6

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The present study was undertaken to provide a more adequate test of Chelladurai's theory of leadership in sport (1980), in accordance with Chelladurai and Carron's proposals (1983) for examining the theory considering sex, skill level, and over a wide range of age in a specific sport; and using a sport specific measure.

The Preferred Version of Chelladurai and Saleh's Leadership Scale for Sports (1980) was adapted for the sport of swimming by replacing its sports-neutral terminology with swimming terminology wherever necessary. Some of the terminology was also revised in order to accommodate the vocabularies of the younger swimmers included among the subjects. The Preferred Version of the Leadership Scale for Swimming measures five leader behavior factors: (a) training and instruction, (b) social support, (c) positive feedback, (d) democratic behavior, and (e) autocratic behavior.

Four hundred and twenty four swimmers responded to the Preferred Version of the Leadership Scale for Swimming. The subjects were almost equally divided by sex and

approximately equally by age. They were of varying skill levels, and they represented 18 states within four geographic regions. The results showed that autocratic behavior, democratic behavior, and training and instruction are the preferred leader behaviors of swimmers significantly related to sex, while training and instruction, positive feedback and democratic behavior are leader behavior factors that related significantly to age; and social support is related significantly to skill level.

Conclusions

On the basis of the data in this study, the following conclusions were drawn.

1. Preferred leader behavior scores for training and instruction, democratic behavior, and positive feedback were linearly related to age, swimmers preferred higher levels of positive feedback and training and instruction with increasing age.

2. Preferred leader behavior scores for democratic behavior were negatively linearly related with age, swimmers preferred lower levels of democratic behavior with increasing age.

3. Male swimmers preferred higher levels of autocratic behavior than female swimmers.

4. Female swimmers preferred higher levels of

democratic behavior and training and instruction than did male swimmers.

5. Elite swimmers preferred higher levels of social support than non-elite swimmers.

6. Preferred leader behavior scores for autocratic behavior were not significantly related to age or to skill level of swimmers.

7. Preferred leader behavior scores for democratic behavior and positive feedback were not significantly related to sex or to skill level of swimmers.

8. Preferred leader scores for training and instruction were not significantly related to the skill level of swimmers.

9. Preferred leader behavior scores for social support were not significantly related to the sex or age of swimmers.

10. The autocratic subscale is a weak subscale in the present study as well as in Chelladurai's (1980, 1983).

Recommendations

1. In the area of age, a more inclusive study needs to be conducted with Master's level swimmers. The present study was unable to include sufficient athletes at ages beyond 40 years.

2. In the area of sex, a study needs to be undertaken

to measure the effect of the coach's sex on swimmers' preferences for leader behavior.

3. In the area of closed vs. open sports, a study needs to be undertaken to measure swimmers preferences (a closed sport) vs. other closed and/or open sports.

4. In the area of independent vs. interdependent sports, a study needs to be undertaken to measure swimmers preferences (an independent sport) vs. other independent an/or interdependent sports.

5. The anomalous character of the autocratic subscale in both Chelladurai's (1980,1983) studies and the present study suggests that it ought to be re-examined. If the subscale is properly clarified for more adequate operational use, it might be able to provide measures as useful as the other four dimensions of leader behavior in the Leadership Scale for Sports, or else it can be eliminated in favor of a more useful dimension.

6. In the area of athletic maturity, age and skill level more study needs to be done to test these relationships.

7. In the area of sex and age, a study needs to be undertaken to measure the relationship between males and females in each of the subscales in each of the age groups.

8. A study needs to be undertaken to measure the relationship between each of the lower age group categories and the leader behavior subscales.

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APPENDIXES

APPENDIX A

LEADERSHIP SCALE FOR SPORTS (PREFERENCE VERSION)

(Chelladurai & Saleh, 1980)

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

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

Please indicate your preference by placing an "X" in the appropriate space. Answer all items even if you are unsure of any. Please note that this is not an evaluation of your present coach or any other coach. It is your own personal preference that is required. There are no right or wrong answers. Your spontaneous and honest response is important for the success of the study.

A	O	O	S	N
l	f	c	e	e
w	t	c	l	v
a	e	a	d	e
y	n	s	o	r
s		i	m	
		o		
		n		
		a		
		l		
		l		
		y		

I prefer my coach to:

- | | | | | | |
|---|-------|-------|-------|-------|-------|
| 1. See to it that athletes work to capacity. | _____ | _____ | _____ | _____ | _____ |
| 2. Ask for the opinion of the athletes on strategies for specific competitions. | _____ | _____ | _____ | _____ | _____ |
| 3. Help the athletes with their personal problems. | _____ | _____ | _____ | _____ | _____ |
| 4. Compliment an athlete for a good performance in front of others. | _____ | _____ | _____ | _____ | _____ |

5. Explain to each athlete the techniques and tactics of the sport. _____
6. Plan relatively independent of the athletes. _____
7. Help members of the group settle their conflicts. _____
8. Pay special attention to correcting athletes' mistakes. _____
9. Get group approval on important matters before going ahead. _____
10. Tell an athlete when the athlete does a particularly good job. _____
11. Make sure that the coach's function in the team is understood by all athletes. _____
12. Not explain his/her actions. _____
13. Look out for the personal welfare of the athletes. _____
14. Instruct every athlete individually in the skills of the sport. _____
15. Let the athletes share in the decision making. _____
16. See that an athlete is rewarded for a good performance. _____
17. Figure ahead on what should be done. _____
18. Encourage athletes to make suggestions for ways to conduct practices. _____
19. Do personal favors for the athletes. _____
20. Explain to every athlete what should be done and what should not be done. _____
21. Let the athletes set their own goals. _____

- | | | | | | |
|---|-----|-----|-----|-----|-----|
| 22. Express any affection felt for the athletes. | ___ | ___ | ___ | ___ | ___ |
| 23. Expect every athlete to carry out one's assignment to the last detail. | ___ | ___ | ___ | ___ | ___ |
| 24. Let the athletes try their own way even if they make mistakes. | ___ | ___ | ___ | ___ | ___ |
| 25. Encourage the athlete to confide in the coach. | ___ | ___ | ___ | ___ | ___ |
| 26. Point out the athlete's strength and weaknesses. | ___ | ___ | ___ | ___ | ___ |
| 27. Refuse to compromise on a point | ___ | ___ | ___ | ___ | ___ |
| 28. Express appreciation when an athlete performs well. | ___ | ___ | ___ | ___ | ___ |
| 29. Give specific instructions to each athlete on what should be done in every situation. | ___ | ___ | ___ | ___ | ___ |
| 30. Ask for the opinion of the athletes on important coaching matters. | ___ | ___ | ___ | ___ | ___ |
| 31. Encourage close and informal relations with athletes. | ___ | ___ | ___ | ___ | ___ |
| 32. See to it that athletes' efforts are coordinated. | ___ | ___ | ___ | ___ | ___ |
| 33. Let the athletes work at their own speed. | ___ | ___ | ___ | ___ | ___ |
| 34. Keep aloof from the athletes. | ___ | ___ | ___ | ___ | ___ |
| 35. Explain how each athlete's contribution fits into the total picture. | ___ | ___ | ___ | ___ | ___ |
| 36. Invite the athlete home. | ___ | ___ | ___ | ___ | ___ |
| 37. Give credit when it is due. | ___ | ___ | ___ | ___ | ___ |
| 38. Specify in detail what is expected of the athletes. | ___ | ___ | ___ | ___ | ___ |
| 39. Let the athletes decide on plays to be use in a game. | ___ | ___ | ___ | ___ | ___ |
| 40. Speak in a manner which discourages questions. | ___ | ___ | ___ | ___ | ___ |

APPENDIX B

LEADERSHIP SCALE FOR SWIMMING

Each of the following statements describe a specific behavior that a coach may exhibit. For each statement there are five choices:

1. Always
2. Often (about 75% of the time)
3. Occasionally (about 50% of the time)
4. Seldom (about 24% of the time)
5. Never

Please check the answer you would prefer to see in a coach.

Answer all of the questions.

A	O	O	S	N
l	f	c	e	e
w	t	c	l	v
a	e	a	d	e
y	n	s	o	r
s		i	m	
		o		
		n		
		a		
		l		
		l		
		y		

I prefer my coach to:

1. See to it that swimmers work as hard as they can _____
2. Ask for the ideas of the swimmers on meet line-ups _____
3. Help swimmers with their personal problems. _____
4. Praise swimmers for a good performance in front of others. _____

5. Explain to each swimmer the skills and tactics of the sport. _____
6. Plan fairly independently of the swimmers. _____
7. Help members of the group settle their disagreements. _____
8. Pay special attention to correcting swimmers' mistakes _____
9. Get group agreement on important matters before going ahead. _____
10. Tell any swimmer when he or she does a very good job. _____
11. Make sure that the coach's duties on the team are understood by all swimmers. _____
12. Not explain his/her actions. _____
13. Look out for the interests of the swimmers. _____
14. Instruct every swimmer individually in the skills of the sport. _____
15. Let the swimmer share in the decision making _____
16. See that a swimmer is rewarded for a good performance. _____
17. Figure ahead on what should be done. _____

18. Encourage swimmers to make suggestions on ways to run practices. _____
19. Do personal favors for the swimmers. _____
20. Explain to every swimmer what should and should not be done. _____
21. Let the swimmers set their own goals. _____
22. Express any caring felt for the swimmers. _____
23. Expect every swimmer to carry out his or her job to the last detail. _____
24. Let the swimmers try their own way even if they make mistakes. _____
25. Encourage the swimmers to tell the coach their problems. _____
26. Point out each swimmer's strengths and weaknesses. _____
27. Refuse to give in on a point. _____
28. Express appreciation when a swimmer performs well. _____
29. Give clear instructions on what should be done in every situation. _____
30. Ask for the opinion of the swimmers on important coaching matters. _____

31. Encourage close and relaxed relations with the swimmers. ___ ___ ___ ___ ___
32. See to it that swimmers' efforts are organized. ___ ___ ___ ___ ___
33. Let the swimmers work at their own speed. ___ ___ ___ ___ ___
34. Not become too friendly with the swimmers. ___ ___ ___ ___ ___
35. Explain how each swimmer's effort fits in the total picture. ___ ___ ___ ___ ___
36. Invite the swimmers home. ___ ___ ___ ___ ___
37. Give credit when it is due. ___ ___ ___ ___ ___
38. Specify in detail what is expected of swimmers. ___ ___ ___ ___ ___
39. Let the swimmers decide on line-ups to be used in meets ___ ___ ___ ___ ___
40. Speak in a manner which doesn't encourage questions. ___ ___ ___ ___ ___

APPENDIX C

Dear Coach:

As a student at the University of Tennessee, I am currently investigating the relationship between age, skill level and sex in relation to preferred leader behavior. My study entails the answering of a 40 question survey asking how a child prefers his/her coach to act.

The questionnaire will be administered during practice and should take no longer than 30 minutes to complete. All results will be confidential and the names of teams and/or athletes will not be attached to the surveys. All results will be recorded by subject number.

The results of the study will be used to provide coaches with valuable information about how their swimmers would prefer them to behave.

As a participating coach you will: (a) Obtain either the parent,s or athlete's informed consent. These will be returned to me with one for each questionnaire. (b) Read the directions aloud (page __) and be sure they understand. (c) Have the athletes fill out the questionnaire individually, then return them to me. (d) Do not try to explain the intent of a question. Ask the athlete to select their best response but remember there are no right or wrong answers. You may, however, explain a word. (e) Collect the finished questionnaire and return it in the enclosed envelope.

Thank you for your time and that of your swimmers. I will be in touch by phone next week to answer questions.

Bonnie Dix

APPENDIX D

Dear Parent,

As a student at the University of Tennessee, I am currently investigating the relationship between age, skill level, and gender in relation to leadership behavior. My study entails the answering of a 40 question survey asking how a child prefers his/her coach to act.

The questionnaire will be administered during practice and should take no longer than 30 minutes to complete. All results will be anonymous. Your child will not sign his/her name to any part of the survey. All results will be recorded by subject number.

The results of this study will be used to provide coaches with valuable information about what children wish to see in a coach, therefore, I would appreciate your child's participation. The study has been discussed with your coaching staff and their consent obtained. This study will in no way affect your child's team status.

If you will allow your child to participate, please sign the form below. Thank you very much for your time and cooperation. If you have any questions, please contact me at (615) 548-3357. Your head coach will be receiving a copy of the results at the conclusion of the study.

Sincerely,

Bonnie Dix

I understand that my child's participation is entirely voluntary and I may withdraw my consent and terminate my child's participation at any time. I understand that all responses are confidential. I give my permission for my child to participate in this study.

Signature of parent or
guardian _____

Child's name _____

Date _____

APPENDIX E

ATHLETE'S INFORMED CONSENT

I understand that the purpose of this study is to determine if there are relationships among age, gender, and skill level with coaching behavior.

I understand that I will complete a two part survey form that will take a maximum total time of 20 minutes.

I confirm that my participation as a subject is entirely voluntary. No coercion of any kind has been used to obtain my cooperation. I understand that neither my team membership nor standing is dependent upon participation in this study.

I understand that I may withdraw my consent and terminate my participation at any time without penalty.

I understand that all my responses and scores will remain completely confidential, and that completion of the following item indicates my consent in lieu of a signature.

APPENDIX F

QUESTIONNAIRE

Following is a questionnaire with some statements about how swimmers prefer their coaches to act. Read each statement and decide if you always, often, occasionally, seldom, or never prefer your coach to act this way. Put an X on the answer of your choice. There are no right or wrong answers. Remember that you are describing the way you would prefer your coach to act. You are not describing your present coach or coaches. Please answer all the questions on both sides of the page.

Subject

Fill in or circle the correct information:

Male	Female	Age _____
USS AGE GROUP	COLLEGE CLASS	MASTERS AGE
9-10	Freshman	25-29
11-12	Sophomore	30-34
13-14	Junior	35-39
15-18	Senior	40-44
		44+

I have been swimming competitively for _____ years.

I have been coached by:

a) male coaches
coaches c) both

b) female

I would rather be coached by:

- a) male coaches
- b) female coaches
- c) don't care

My best times are: (note if times are not for yards)
(answer with your best 2 events)

Freestyle	_____	distance	_____	IM	_____	distance	_____
Freestyle	_____	distance	_____	IM	_____	distance	_____
Freestyle	_____	distance	_____	Fly	_____	distance	_____
Back	_____	distance	_____	Fly	_____	distance	_____
Back	_____	distance	_____				
Breast	_____	distance	_____				
Breast	_____	distance	_____				

I train in the state of _____.

VITA

Bonnie Michelle Dix was born in Hanover, New Hampshire. She attended grade school in Woodstock, Vermont and junior and senior high school in Hanover, New Hampshire, where she graduated in June of 1976. She received a Bachelor of Science degree from the University of Vermont in 1980. The author taught special education and coached for five years in northern Vermont before receiving a graduate assistantship with The University of Tennessee's women's swim team. She is currently coaching at Wellesley College, Wellesley, Massachusetts.