

The Relationship Between Collective Efficacy and Coaching Behaviors in Professional Volleyball League of Iran Clubs

¹M. Hoseini Keshtan, ²R. Ramzaninezhad,
²Sh. Shafiee Kordshooli and ²P. Mohamad Panahi

¹Payame Noor University (Bojnord Branch)

²Physical Education and Sport Sciences Faculty, University of Guilan, Rasht, Iran

Abstract: The purpose of this study was to examine the relationship between collective efficacy and coaching behaviors in professional volleyball league of Iran clubs (2008). Athletes (N=153) from 13 volleyball teams completed demographic questionnaire, collective efficacy questionnaire (CEQ) and the perceived version of the leadership scale for sport (LSS). The questionnaires were administered in the second half-season. Results showed coaches' behaviors of training and instruction and social support positively correlated with the collective efficacy. The comparison of coaching behaviors demonstrated that coaches exhibited higher training and instruction and lower democratic behavior. Also, coaches of successful teams exhibited higher training and instruction and social support behaviors than less successful and unsuccessful teams. Results supported the relationship between collective efficacy and team performance and revealed that high efficacy teams performed significantly better than teams with low levels of collective efficacy. Overall, our findings support the important role of coaching behaviors and collective efficacy in successful team performance. In addition, results highlighted the effect of coaching behaviors in collective or team efficacy.

Key words: Collective Efficacy % Coaching Behaviors % Team Performance

INTRODUCTION

Within the field of social psychology, the number of studies conducted to investigate the dynamics that occur within a group structure has increased significantly over the past two decades. Since most people encounter a group environment at some point in their life, research that examines the vitality and changing nature of a group is of importance to the social psychology literature. Within the social psychology of sport literature as well, the study of group dynamics has become a relatively major component of the research base. The term, group dynamics, is used to describe the study of the behavioral characteristics of groups as well as the study of the vitality and changing nature of groups. The relationships exhibited among members of groups are not static and are easily influenced by outside sources [1]. A group is defined by the presence of five aspects: a common fate among members, an experience of mutual benefit, the presence of a social structure, group processing and self-categorization. A sport team is thus defined as "a collective of two or more individuals who possess a

common identity, have consensus on a shared purpose, share a common fate, exhibit structured patterns of interaction and communication, hold common perceptions about group structure, personally and instrumentally interdependent, reciprocate interpersonal attraction and consider themselves to be a group" [2].

However, the team's performance did not appear to be simply the sum of individual efforts, but a more complex interaction of interpersonal and situational factors. In recent years, some researches had even examined the effect of psychosocial factors on team's performance. The research conducted to date to examine group dynamics in the sport setting has focused on many aspects of the group, including group formation, size, structure, leadership, conformity, motivation, tasks, cohesion and efficacy. The critical aspect of the group that is the focus of the current project is collective efficacy [3]. Collective efficacy is the shared sense of competence among a team concerning the group's ability to be successful in its attempts to meet the demands placed upon the members [4]. Collective efficacy is an important factor to the success of sport teams because it

can influence a team's collective effort, their persistence in tough situations or defeat and is a characteristic often observed in successful teams [5]. Some psychologists have consistently demonstrated that collective efficacy has positive effects on sport performance [6-8]. Hodges and Carrons' (1992) research indicated that following their failure, groups which are high in collective efficacy increased their efforts and performance; whereas groups which are low in collective efficacy showed deterioration in performance [6]. Lirgg *et al.* (1994) and Swain (1996) investigated the relationship between collective efficacy and performance and found that collective efficacy positively correlated with group performance [9]. Similarly, Spink's (1990) study of elite volleyball teams demonstrated that high efficacy teams performed significantly better in a competitive tournament than teams with low levels of collective efficacy [10]. There are many factors that can affect collective or team efficacy such as group cohesion, group size, prior performance and coaching behavior. The coaching behavior is a critical factor that can affect the group's sense of collective or team efficacy. The research conducted over the past two decades in the area of coaching effectiveness has primarily been focused on identifying the coaching characteristics, leadership styles and behavioral patterns which are most effective. In general, these research studies have defined an "effective coach" as one who elicits either successful performance outcomes or positive psychological responses on the part of her or his athletes [11]. There is research support to show that the behaviors and leadership styles exhibited by coaches do affect their athletes' performance and psychosocial responses in sport contexts. But, as Horn (2002) noted in her recent review of this body of research, the majority of these coaching behavior studies have focused on the effects of coaches' behaviors on individual athletes' level of intrinsic motivation, perception of competence, motivational goal orientation and trait anxiety. Since that point, there has been a considerable amount of research dedicated to understanding the relationship of coaching behaviors to many group related factors such as group cohesion (Shields *et al.* 1997; Murray, 2006; Kozub, 1994), team performance (Echas and Krane, 1993; Dexter, 2002), intrinsic motivation (Black and Weiss, 1992; Amorose and Horn, 2001; Hollebeak and Amorose, 2004) and athlete's satisfaction (Allen and How, 1998; Riemer and Toon, 2001) to name a few [12-21].

Very few research studies have examined the effect of coaches' behavior in group processes or team dynamics. Of those few studies that have focused on group

processes, most of them have focused on group or team cohesion. At this point, one study has been examined the effect of coaches' behaviors or leadership styles on the team's level of collective efficacy. Ronayne (2004) found that an increase in athlete's perception of collective efficacy positively correlated with perceptions of their coach exhibiting higher levels of democratic behavior, training and instruction, social support, positive feedback and lower levels of autocratic behaviors [3], although Zaccaro *et al.* (1995) suggest that longitudinal research is needed to determine the role of coaches' behavior and leadership styles on athletes' level of collective efficacy [4]. Also, Yukl (1989) identifies four sets of coaching behaviors that may be effective in promoting a team's efficacious beliefs.

- C Supportive behavior addresses issues of promoting a cohesive and friendly environment.
- C Directive behavior clarifies the teammate role responsibilities and expectations as well as setting rules and guidelines.
- C Participative behavior is similar to that of a democratic style of leadership in that its focus is on group decision-making.
- C Achievement oriented behavior focuses on the outcomes of team goals by setting challenging goals and high standards of excellence [22].

Therefore, within the area of team sport, both collective efficacy and coaching behaviors would appear to share some commonality in influencing sport performance in numerous occasions in the past. But in the present study, we are examining the relationship between collective efficacy and coaching behaviors in professional volleyball teams. Also, we examined the effect of coaching behaviors and collective efficacy in team performance.

Methodology

Participants: 13 teams comprised of 153 volleyball team members (male) in Iran professional league participated as subjects (M=24.9). The league schedule was divided to three parts at the end of the season. The first four teams were considered as successful teams, next five ones were considered as less successful teams and last four teams were considered as unsuccessful teams.

Measures: Each study participant completed a demographic questionnaire that asked him to report his age, precedent and academic background.

Leadership Scale for Sport (LSS, Chelladurai and Saleh, 1980) measures five dimensions of coaching behavior: training and instruction (TI), democratic behavior (DB), autocratic behavior (AB), social support (SS) and positive feedback (PF). The LSS comes in three versions: the athlete's preference for coaching behavior, the athlete's perception for coaching behavior and the coaches' perception of their own behavior. The athletes in this study only completed the athlete's perceived coaching version. The athlete's perception version of LSS contains forty items prefaced by "My coach..." and is followed by statements such as "sees to it that athletes work to capacity". Each item is scored on a 5-point Likert scale ranging from "always" to "never". There are thirteen items for TI, nine items for DB, five items for AB, eight items for SS and five items for PF. The psychometric properties of the LSS have been demonstrated in several studies [23].

Collective Efficacy Questionnaire (CEQ, Feltz and Lirgg, 1998); Athletes' assessment of their team collective efficacy was measured using the CEQ developed by Feltz and Lirgg (1998). The survey is designed to measure the athletes' perception of their team abilities to organize and perform at their desired level. The different team aspects are preceded by the phrase "Rate your team's confidence in that your team has the ability to..." and then followed by different items such as "outplay the opposing team," "keep cool under pressure," and "work hard as a team." The CEQ is a 49-item questionnaire which contains 20 actual scale items and 29 filler items. The 20 actual scale items are divided into five subscales: ability, unity, persistence, preparation and effort. The athletes are asked to rate their confidence on a 10-point Likert scale (0-9). A 9 on the scale represents "extremely confident," a 4-5 on the scale signifies "moderately confident," and a 0 on the scale means "not at all confident" [3].

Administration of questionnaires occurred in second half-season (April 2008). An initial phone call was made to each of the 13 head managers prior to the study concerning the purpose and procedures of the study. After practice, the coaches or assistant coaches brought the team together and questionnaire was administered by the researcher. Players first completed the demographic questionnaire, then the LSS and finally the CEQ. The instruments were completed individually and anonymously and the coaches did not have access to the individual information received.

RESULTS

Scale Reliabilities: Previous studies have generally indicated acceptable internal consistency scores for CEQ and LSS scales [3]. In the present study, Cronbach's alpha coefficient was utilized to examine the internal reliability of LSS (Table 1). Internal reliability estimates of CEQ indicated that all subscales were at or above 0.79, indicating high internal consistency.

Coaching Behaviors: ANOVA and Tukey post hoc comparison revealed significant differences in coaching behaviors and showed that coaches exhibited higher training and instruction and lower democratic behavior (Figure 1).

Table 1: Internal reliability scores for the LSS

LSS Scale	Cronbach's Alpha
Training and instruction	0.84
Democratic Behavior	0.79
Autocratic Behavior	0.78
Social Support	0.83
Positive Feedback	0.71

Table 2: Relationship between collective efficacy and coaching behaviors

Collective Efficacy	Autocratic Behavior	Democratic Behavior	Positive Feedback	Social Support	Training and Instruction
Pearson Correlation	-0.11	0.09	0.13	0.46*	0.53*

* P= 0.05

Table 3: Differences of coaching behaviors in successful, less successful and unsuccessful teams

Coaching Behaviors	Groups	Means Differences	Significant Levels
Training and Instruction	Successful and Less Successful	0.31	0.01*
	Successful and Unsuccessful	0.40	0.01*
	Less Successful and Unsuccessful	0.09	0.10
Social Support	Successful and Less Successful	0.17	0.37
	Successful and Unsuccessful	0.50	0.01*
	Less Successful and Unsuccessful	0.23	0.15

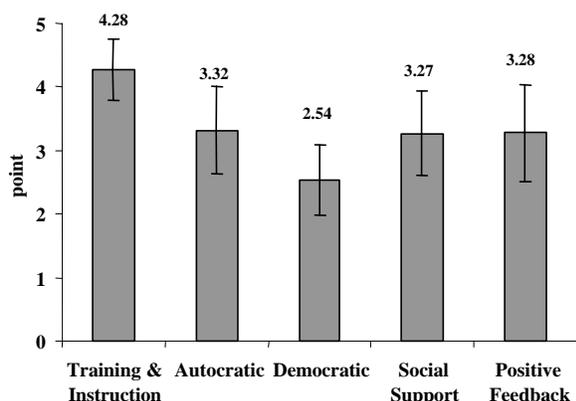


Fig. 1: Comparison of coaching behaviors

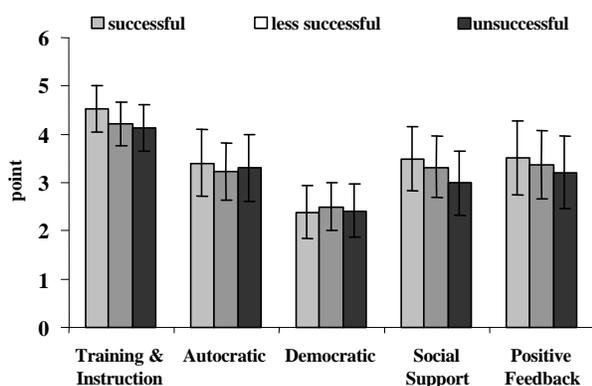


Fig. 2: Comparison of coaching behaviors of successful, less successful and unsuccessful teams

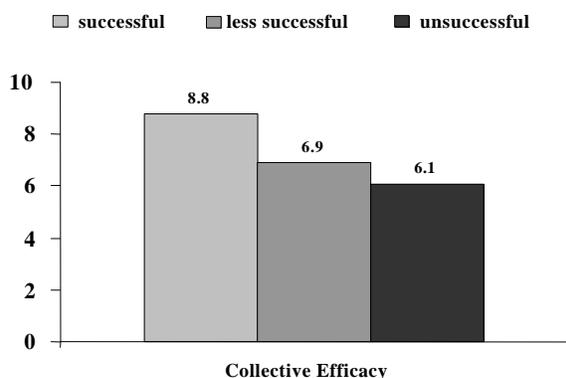


Fig. 3: Comparison of collective efficacy level of successful, less successful and unsuccessful teams

Coaching Behaviors and Collective Efficacy: Pearson correlation analysis indicated that coach's behaviors of training and instruction and social support were positively correlated with collective efficacy. Also, positive feedback, democratic and autocratic dimensions

of coaching behavior was not significantly correlated with collective efficacy. On the whole, a significant relationship was found between collective efficacy and coaching behaviors (Table 2).

Coaching Behaviors and Team Performance: ANOVA with repeated measures and Tukey post hoc test were used to compare coaching behaviors of successful, less successful and unsuccessful teams. The findings demonstrated a significant difference in coaching behaviors among successful, less successful and unsuccessful teams (Figure 2).

Tukey post hoc comparison revealed that coaches of successful teams exhibited higher training and instruction behavior than less successful and unsuccessful teams. Also, these coaches exhibited higher social support behavior than unsuccessful teams (Table 3).

Collective Efficacy and Team Performance: ANOVA and Tukey post hoc comparison revealed that collective efficacy was positively correlated with team performance. Athletes from successful teams rated higher collective efficacy than less successful teams and athletes from less successful teams rated higher collective efficacy than unsuccessful teams (Figure 3).

DISCUSSION

The primary purpose of the present study was to examine the relationship between coaching behaviors and collective efficacy in professional volleyball teams. Result showed that training and instruction and social support dimensions of coaching behaviors were positively correlated with collective efficacy. It means that coaching behaviors influence athlete's perceptions of collective or team efficacy in coordinated group activities. Ronayne (2004) found that an increase in athlete's perception of collective efficacy was positively correlated with perceptions of their coach exhibiting higher levels of democratic behavior, training and instruction, social support, positive feedback and lower levels of autocratic behaviors [3]. Zaccaro *et al.* (1995) suggest that longitudinal research is needed to determine the role coaches' behavior and leadership styles might play in affecting athletes' level of collective efficacy [4]. Using the findings of this study as a basis, there are some implications for coaches. One implication is that coaches need to take the time to reflect on these strategies that make the team more efficient. In addition, coaches that exhibited higher training and instruction emphasize

providing training and technical support for athletes, conducting hard and strenuous training sessions, instructing athletes in the skills, techniques and tactics necessary for the sport and finally structuring and coordinating team members' activities. Also, social support behaviors include coaches' concerns for the welfare of individual athletes as well as the people outside the sport context and the establishment of warm interpersonal relationships with the athletes.

Findings support previous research that collective efficacy affects team performance. Results of this study showed that athletes from successful teams rated higher collective efficacy than less successful teams and athletes from less successful teams rated higher collective efficacy than unsuccessful teams. In this regard, Spink (1990); Lirgg *et al.* (1994); and Swain (1996) found that collective efficacy was positively correlated with group performance [9, 10]. They reported that high efficacy teams performed significantly better in competition than did teams with low levels of collective efficacy. Logically, according to past researches, it seems that collective efficacy is a predictor of team performance. For one, more highly skilled athletes may have higher efficacy beliefs based on day to day experience. This may have also been reflected in the positive association between collective efficacy and team performance. Additionally, athletes from higher efficacy teams may demonstrate more confident behaviors in the court, influencing team performance and success. Therefore, within the area of team sport, collective efficacy would appear to share some commonality in influencing team performance.

Results revealed significant differences in coaching behaviors and showed that coaches exhibited higher training and instruction and lower democratic behavior. In this regard, Ronayne (2004) and Bennet and Manuel (2000) found that coaches place more emphasis on training and instruction while expressing a lower preference for democratic behavior [3, 24]. Chelladurai in his model (1990) proposed that coaches behave in a way that is appropriate for the sport environment (situational factors) and his/her characteristics and that is consistent with the needs and desires of the athletes (athlete's characteristics) [25]. But, at professional levels, it seems that coaches tend to exhibit higher training and instruction and lower democratic behavior (coaches do not involve athletes in the decision-making process) appropriated or required in this specific sport context.

The final hypothesis supported the notion that there are significant differences between coaching behaviors of successful and unsuccessful teams. Wester and Wiess

(1991); Dexter (2002); and Range (2002) found a significant relationship between coaching behaviors and team success [26-28]. But in present study, we found that coaches of successful teams exhibited higher training and instruction behavior than less successful and unsuccessful teams. Also, these coaches exhibited higher social support behavior than unsuccessful teams. Alfermann (2005) and Eichas and Krane (1993) also supported our findings and demonstrated that the valuable coach's behaviors plays an important role in the promotion of player's performance and finally team success [29, 30]. It can be concluded that when coaches instruct athletes in the skills, techniques and tactics that are necessary for the sport and his /her good relationships with athletes, it contributes to high successful performance. As noted earlier in this paper, there is research support to show that the behaviors and leadership styles exhibited by coaches do affect their athletes' performance and psychosocial responses in sport contexts. Furthermore, the results of this study provide additional support for Horn's Working Model of Coaching Effectiveness (2002) and Chelladurai's Multidimensional Model of Leadership (1990) that reported that coaching behaviors affect or predict some of the variability in the positive outcomes of athlete performance and psychological variables such as collective efficacy [11, 25].

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