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A Study of the Relationship between Team Cohesion, Role Ambiguity and Athletic Performance in Football Team Players

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Abstract: The purpose of the present study was to explore the relationship between team cohesion, role ambiguity and athletic performance of football players. To this end, 247 players from 14 randomly selected football teams competing in the 2005 IRIB national summer league constituted the sample of the study. Data collection tools included the Team Cohesion Scale, Role Ambiguity Scale and Football Players' Performance Checklist. Results of the study revealed that a significant positive relationship exists between lack of ambiguity in athletic defense position and lack of ambiguity in athletic offence position ($r = 0.77$), between lack of ambiguity in athletic defense position and team cohesion ($r = 0.33$), lack of ambiguity in athletic offence position and team cohesion ($r = 0.34$), lack of ambiguity in athletic offence position and athletic performance ($r = 0.42$) and between team cohesion and athletic performance ($r = 0.23$). Findings also revealed a significant difference between champions and non-champions in terms of team cohesion, role ambiguity and athletic performance, with higher mean scores noted for champion athletes. Furthermore, multivariate relationships were observed between team cohesion, role ambiguity and athletic performance ($p< 0.05$).

Key words: Team cohesion, role ambiguity, performance, football players

INTRODUCTION

Today, owing to inadequate attention to psychological issues, many athletes lack mental fitness despite possessing optimal physical fitness, leading to their poor performance in sports competitions. It has been clearly shown in competitions that lack of coordination among members of a team results in confusion and interpersonal assault among members of a team, often associated with undesirable consequences for the team. In addition, when players of a team do not play in positions decided by the coach, the number of mistakes they commit increases, leading to their lowered performance. In team and group games, a number of psychological concepts, one of which is team cohesion, impacts team performance. Team cohesion can be defined as a general area of struggle by team members to be and stay on the team. Team cohesion has two general dimensions. The first dimension includes attraction, which refers to liking team mates or a feeling of satisfaction from being in the team and playing with team mates. The second dimension is the instrumental aspect of cohesive control which refers to rules acquired by a team member from group relations. Festinger *et al.* (1963) showed that if team cohesion and task cohesion are high, team cohesion will be higher and that these are factors that keep a sports team together and are determined by a set of conditions. That is, the observed level of cohesion within a team is a function of conditions and factors which include environmental, personal, leadership and team variables. Vender Veldon (1971) showed that the greater the team unity and cohesion, the better the chances of victory for the team, or, in other words, the more points the team scores against the opponent team. Moreover, in this study, the correlation between team cohesion and athletic performance was reported to be 0.64. Klin and Christiansen (1969) showed that interpersonal attraction, a dimension of team cohesion in members, leads to better motivation to play. Also it was observed that a larger percentage of team ohesion enables team members to display all their potential abilities. In Martins and Peterson's study (1971) results indicated that teams with good cohesion played well and achieved better results, but teams with weak cohesion did not obtain interesting results. Bakeman and Helmreich (1975) examined team cohesion at three time intervals and found a positive association between team cohesion and performance in the three phases (beginning

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of season, mid-season and end of season). They also asserted that the high correlation implies that the most cohesive team will have the best players at the end of the season. Carron and Ball (1977) showed that a significant positive correlation (r = 0.77) exists between team cohesion and good team performance.

Another variable that plays an important role in team games, especially football, is role ambiguity. Role ambiguity has been defined as a lack of clarity of information regarding expectations associated with the success of an individual (Kahn *et al*., 1964). Kahn *et al.* (1964) in their theoretical model showed that the experience of role ambiguity can bring about feelings of tension, decreased self-confidence, athletic dissatisfaction and lowered efficacy. Recent studies have supported these assumptions (Beauchamp and Bray, 2001). Eys and Carron (2003) showed that perception of decreased role ambiguity bears a significant negative correlation with athletic satisfaction and athletic performance. The relation between athlete satisfaction and role ambiguity was reported to be -0.46 in Jackson and Schuler's study (1985) and between -0.20 and -0.40 in the study by Eys *et al.* (2003). In the Eys and Carron study (2003) a high correlation was observed between the four indices of role ambiguity (ambiguity in acceptance of role responsibility, failure to perform clear behaviors with respect to role responsibility, ambiguity in evaluation of role performance and ambiguity in the consequences of failure to fulfill responsibilities. Furthermore, ambiguity in the acceptance of defense position in basketball was related to evaluation of performance and self efficacy. However, a significant negative relationship was obtained between role ambiguity and athletic performance. In a study by Beauchamp *et al.* (2002), a significant negative correlation was observed between role ambiguity and athletic performance.

It appears that role ambiguity and team cohesion in sports teams have a significant negative relationship, implying that the greater the level of role ambiguity in a team, the lower the team cohesion, followed by poorer performance of players in competitions. In other words, the more the team is integrated and cohesive, the greater the impact on cooperation among team members in victory and failure. Accordingly, in the present study, the following hypotheses were formulated.

- There is positive relationship between team cohesion and athletic performance of team members.
- There is negative relationship between team cohesion and role ambiguity among team members.
- There is negative relationship between role ambiguity and athletic performance of team members.
- There is a significant difference between members of champion teams and members of non-champion teams in team cohesion, role ambiguity and sports ambiguity.
- There exists a multivariate relationship between team cohesion, role ambiguity and athletic performance.

MATERIALS AND METHODS

As the present study aimed at exploring the relationship between team cohesion, role ambiguity and athletic performance, a correlational research method was employed. However, as another goal of the study was to determine the differences between champion and non-champion players with regard to level of team cohesion, role ambiguity and athletic performance, a causal comparative method was also utilized.

Universe: The universe of the study was made up of 24 football teams with a total of over 360 players who played in several sports teams of Ardebil.

Sample and sampling method: The sample of the study included 14 teams with 268 players who were randomly selected. Of these, 21 players who failed to complete the questionnaires were excluded from the study and 247 players composed to final sample.

Tools

Team cohesion questionnaire: This questionnaire constructed by Martins, Landers and Louis (1972) contains seven items rated on a 9 point scale. This questionnaire has been used in several studies and its reliability are reported to be between 0.70 and 0.86. The internal consistency (Cronbach α) of this scale in the present study emerged to be 0.71.

Role ambiguity scale: The Role Ambiguity Scale (RAS; Beauchamp *et al*., 2002) was used to assess role ambiguity. This instrument is a 40-item questionnaire designed to measure 4 types of role ambiguity to, scope of responsibilities (5 item for offence; 5 items for defence), role behavior (5 item for offence; 5 items for defence), role evaluation (5 item for offence; 5 items for defence), role consequences (5 item for offence; 5 items for defence). Participants rate their agreement with each item on a 9-point scale anchored by 1 (strongly disagree) and 9 (strongly agree) with lower scores reflecting greater role ambiguity and higher scores reflecting greater clarity. In the development of RAS, Beauchamp *et al.* 2001 provided evidence for the factorial validity of the instrument through confirmatory factor analyses, in which

the a priori four-factor model was supported in both offensive and defensive contexts. Beauchamp *et al.* also reported acceptable internal consistencies of greater than 0.70 for each of separate subscale of the RAS. In the present study the internal consistency (Cronbach α) was calculated to be 0.81 and 0.72 for the offence position and defense position subscales, respectively.

Football players' performance checklist: This scale constructed by the authors consists of 16 items pertaining to players' performance during training and competitions. This is an interval scale and in the present study Cronbach α was 0.80.

RESULTS

As observed in Table 1, there is a significant positive correlation between lack of ambiguity in defense position and ambiguity in offence position (r = 0.77), between lack of ambiguity in defense position and team cohesion (r = 0.33) and between lack of ambiguity in offence position and team cohesion (r = 0.34). Lack of ambiguity in offence position and athletic performance (r = 0.42) and team cohesion and athletic performance (r = 0.23) were also positively related.

As observed in Table 2, there is a significant difference between the mean scores obtained by champion and non-champion players in lack of ambiguity in defense position, lack of ambiguity in offence position, team cohesion and athletic performance, with champion players scoring higher than their non-champion counterparts. In other words, lack of ambiguity in defense position and lack of ambiguity in offence position in champion players is lower than that in non-champion players and team cohesion and athletic performance is greater in champion players.

As observed in Table 3, multivariate correlation coefficient for a linear combination of lack of ambiguity in defense position, lack of ambiguity in offence position and team cohesion with athletic performance in the total

Table1: Simple correlations between dependent variables

Variables	Lack ambiguity in defense position	Lack ambiguity in offence position	Team cohesion	Athletic performance
Lack of ambiguity in defense position	1	0.77(0.001)	0.33(0.001)	0.07(0.66)
Lack of ambiguity in offence position		1	0.34(0.001)	0.42(0.001)
Team cohesion			1	0.23(0.041)
Athletic performance				1

Table 2: Results of the t test to compare means of the variables lack of ambiguity in defense position, lack of ambiguity in offence position, team cohesion and athletic performance of champions and non-champions

Dependent variables	Groups	Mean	SD	df	t	p
Lack of ambiguity in defense position	Champion	151.48	13.96	233	8.07	0.001
	Non-champion	133.5	16.85			
Lack of ambiguity in offence position	Champion	152.16	15.27	233	6.48	0.001
	Non-champion	134.775	22.82			
Team cohesion	Champion	56.77	4.02	233	7.2	0.001
	Non-champion	51.89	5.72			
Athletic performance	Champion	120.90	19.72	233	4.21	0.001
	Non-champion	111.67	11.19			

Table 3: Multivariate regression coefficients with athletic performance regressed on role ambiguity and team cohesion using the enter method

Criterion variable	Predictor variables	MR	RS	F (p)	1	2	3
Athletic performance	Lack of ambiguity in defense position	0.072	0.005	1.28 (0.258)	B = 0.07 t = 1.13 p = 0.26	*	*
	Lack of ambiguity in offence position	0.204	0.042	5.32 (0.005)	B = -0.30 t = -3.09 p = 0.002	B = 0.30 t = 3.05 p = 0.003	*
	Team cohesion	0.234	0.05	4.71 (0.003)	B = -0.32 t = -3.29 p = 0.001	B = -0.275 t = 2.79 p = 0.07	B= -0.123 t = 1.84 p = 0.07

Table 4: Stepwise multiple regression coefficient to predict athletic performance in the whole sample

Criterion variable	Predictor variable	MR	RS	B	F	t	P
Athletic performance	Lack of ambiguity associated with offence position role	0.126	0.016	0.126	3.92 (0.04)	2.44	0.01
	Lack of ambiguity associated with individual's offence position behavior	0.178	0.035	0.242	4.42 (0.01)	2.21	0.02

sample is 0.234 ($p = 0.05$) which is greater than its simple correlation with athletic performance.

As observed in Table 4, lack of ambiguity associated with offence position role and lack of ambiguity associated with player's offence position behavior predict total athletic performance of football players ($p<0.05$). That is, the less the ambiguity in these two variables, the better the performance of the players will be.

DISCUSSION

The results of this study showed that there is a significant positive correlation between team cohesion and athletic performance. Therefore, the first hypothesis was retained. This finding is consistent with those obtained by Festinger *et al.* (1961), Martins and Peterson (1971) and Carron and Ball (1977). They demonstrated that team cohesion and outcome of the game are positively related and the outcome of the game affects later cohesion. The changes observed in cohesion somehow become consistent with the outcome of the following game. It appears that team cohesion is affected more than the outcome of the game.

Results indicated that there is a significant positive correlation between lack of ambiguity in defense position and team cohesion, thereby confirming the second hypothesis. This finding is congruent with those of Eys *et al.* (2003); Eys and Carron (2001). In their study, they found an association between role ambiguity and athletic performance as well as between team cohesion and athletic performance. Consequently, it can be concluded that since role ambiguity and team cohesion are related to athletic performance, the two variables can be significantly associated with one another.

The results of the present study revealed that there is a significant positive relationship between lack of ambiguity in offence position and athletic performance. Therefore, the third hypothesis is retained. This finding is in accordance with those of Beauchamp *et al.* (2001), Eys *et al.* (2003) and Eys and Carron (2001). Since role ambiguity is defined as lack of clarity, insufficient information about expectations associated with success and personal state, it can be said that role ambiguity in players adversely affects their athletic performance. This point was demonstrated in earlier studies (Beauchamp *et al.*, 2001; Eys *et al.*, 2001; Eys *et al.*, 2003; Eys and Carron, 2001) and in the present study a negative correlation between role ambiguity and athletic performance has been found.

Another finding of the present study is the difference between the mean scores of champion and non-champion players in lack of ambiguity in defense position and lack of ambiguity in offence position, with champion players scoring higher. Therefore, the fourth hypothesis is confirmed. Considering that no study to date has indicated this significant point, it can be said that football players who usually play on the same team and achieve victories during the competition season, experience less role ambiguity. It is likely that continual sports activity and cooperation in the same sports team promotes the internalization of within team roles by the members so that each player performs his role in such a way that other players become aware of and come to expect his performance. This brings about a reduction in role ambiguity and a resultant increase in awareness of one's role.

Yet another finding of the study was that champion and non-champion players differed significantly in team cohesion, with champion players reporting higher levels. Therefore the fifth hypothesis is retained. These findings are in harmony with those of Vender Veldon (1971), Martins and Peterson (1971) and Bakeman and Helmreich (1977). Results obtained by these researchers showed that athletic performance and percentage of victories and failures in within school sports significantly impacts subsequent team cohesion. That is the game affects later team cohesion and changes noted in team cohesion is somehow consistent with subsequent games. Results also demonstrated a significant difference between mean athletic performance of champion and non-champion players. The athletic performance of champion players is better than that of non-champion players since the victories of a team become part of the athletic performance of that team. The 6th hypothesis is, therefore, retained.

A final finding of this study is that there is a multivariate relationship between team cohesion and role ambiguity (ambiguity associated with defense position in sports, ambiguity associated with offence position in sports) and athletic performance in members of sports teams. Among all the variables, lack of ambiguity associated with offence position role and lack of ambiguity associated with the individual's offence position activities predict football players' athletic performance. This finding confirms the seventh hypothesis of the study. This finding is consistent with those of Klin and Christiansen (1969), Martins and Peterson (1971); Eys *et al.* (2003); Eys and Carron (2001); Beauchamp *et al.* (2002). These researchers indicated in their studies that role ambiguity and team cohesion can affect the victory and failure of a team and these two variables have been claimed to be good predictors of athletic performance. It can be said that team cohesion and number of victories achieved in each league and

amount of team coordination, enhances degree of coordination based on coordinated and complementary performance and role ambiguity by itself can predict negative athletic performance, thereby impacting the team's victories and failures.

Based on these findings, it is recommended that sports coaches and physical education authorities pay attention to the role of important variables such as team cohesion and role ambiguity in sports teams, especially football teams, in order that players who are psychologically fit are selected to play on a team, thereby enhancing the performance of the team.

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