
Match participations, field position, length of team membership: Their impact on team cohesion

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Abstract: The aim of the current study was to examine the relationship between cohesion and its antecedents (match participations, field position and length of team membership). 173 players of Greek amateur leagues participated in the study. They completed the Greek version of the 18-item Group Environment Questionnaire, and also improvised scales for the other variables in the end of the season 2009-2010. The Cronbach alphas of the Group Environment Questionnaire were satisfied for both task and social cohesion. The MANOVA analyses indicated the existence of statistical significant differences on perceptions of cohesion among players with different number of participations, and length of team membership. However, the MANOVA analysis showed that there were not statistical significant differences on perceptions of cohesion among players of different field position. Specifically, players with less participations perceived lower task and social cohesion than players with more participations. Furthermore, players who were members of their team for shorter period perceived lower social cohesion and higher task cohesion than players who were members for longer. Although the no significant results regarding the relationship between cohesion and field position, some trends showed that goalkeepers and attackers perceived the highest cohesion.

Keywords: Cohesion, Soccer, Position, Status, Performance

1. Introduction

In soccer a group of players co-operate so as to achieve team's goals. The coach manages the team in a way that the members have a tendency to stick together or to be united either physically or logically [1]. The team coach is challenged to create the environment which encourages players to achieve their personal and team goals by working together. The famous soccer coach Sven-Göran Eriksson described how "we" mentality can raise both the individual and team performance [2]. A significant psychological predictor of performance is team cohesion. Most of the studies on relationship between cohesion and performance in sports have shown that teamwork leads to increased effort and performance [3-10]. Carron and his colleagues [11], defined cohesion as "a dynamic process that is reflected in the tendency for a group to stick together and remain united in its pursuit of instrumental objectives and/or for the satisfaction of members' affective needs" (p.213). Sport cohesion is a multidimensional construct as it can be divided into two different types: the task and the

social cohesion. Task cohesion corresponds to the desire of group members to work towards the achievement of the team goals, while social cohesion corresponds to the need of group members to form and maintain interpersonal bonds. Based on this proposition, Carron developed the conceptual model of team cohesion that specifies the antecedents and the consequences on both team and individual performance [11, 12]. Environmental, personal, leadership and group factors constitute the antecedents of team cohesion. Environmental factors such as the competition and the team size [13], personal factors such as satisfaction [14, 15], the coach leadership style and the way he contributes to cohesion development [16, 17], and group factors such as team goals [18] have been found to affect the cohesion. Although there are many studies which examine the relationships between a variety of factors and cohesion, soccer team cohesion has not been investigated enough.

One very important factor that seems to affect it is the number of players' match participations. Soccer teams consist of 20 to 25 players that co-operate with each other so as to achieve their goals. However, fewer than half of the

team members participate in most of the matches. Therefore the players, who display the highest individual performance, play in most of the matches [19]. But how does this difference affect the feelings of the players? It has been noticed that many players get negative feelings when their role in the team is not as important as others' [20]. The results of a study in volleyball concluded that the players whose role is a substitute one perceive lower task cohesion [21]. Also, in American football the first-team players perceive higher levels of task [17] and total cohesion [22]. One explanation for these findings is that the first-team players develop feelings of belonging to the team and they are more focused to the team goals [19, 23].

The position of the players on the field is another factor that seems to affect the cohesion which the players perceive. In soccer, there are 11 different positions with completely different roles and responsibilities for the players. However, soccer coaches use the defenders in one team and the attackers in the other very frequently during training sessions and practice matches. Furthermore, during tactics groups of players often work in different tasks depending on the position. There are four different categories of players in a soccer team, goalkeepers, defenders, midfielders and attackers. Chelladuray and Carron [24] claimed that the positions of the players are specified by two factors, task dependence and propinquity. Task dependence is a factor that relates to the players' perceived cohesion and refers to the interaction among players of the same team. The higher task dependence, the greater interaction and dependence among players of the same team. The second factor, propinquity, consists of two dimensions, observability (knowledge of the movements of other positions) and visibility (the degree the player is observed by those in other positions). For example, the soccer goalkeeper presents the lowest level of task dependence and also low levels of interaction with the other players but high levels of propinquity. Although, it seems that small group players with similar responsibilities (e.g. defenders) would present same levels of perceptions about team cohesion, the findings of other studies concluded that the relationship between the cohesion and the field position is low [17, 25]. However, there was a minor significance of the results adding that the data were not taken from soccer teams which consisted of many players that work in small groups.

Another factor that seems to be related to players' perceived cohesion is the length of team membership. Players, who are members of the same team for a long time, adopt the team objectives/goals. There are studies which confirm that teams, which stick to the same players, present higher team performance very often [26, 27]. However, there is a lack of knowledge regarding the relationship of the length of time in a club for each player separately and its relation to their perceptions about the soccer team cohesion. The researchers of the study also established a lack of knowledge about the factors which related to the soccer team cohesion. The aim of the current study was to examine the relationship between cohesion and match participations,

field position and length of a team membership.

2. Method

2.1. Participants

In the present study participated 173 Greek male soccer players. They were all members of Greek soccer clubs for the season 2009-2010. Participants' age ranged from 13 to 38 ($M= 21.91$, $SD= 5.49$). Parents or guardians of the under 18 year's old players were notified of the research procedures, requirements, benefits, and risks before giving informed consent. A university Research Ethics Committee granted approval for the study.

2.2. Design

The researchers measured the cohesion at the end of the season, before the last match of each team. According to the steps of team growth which Tuckman first described [28, 29], the end of the season for a team reflects to the stage before team adjourning. The perceived cohesion at the end of the season reflects the experiences that the players felt during the whole season. The researchers hypothesized that perceived cohesion would be differentiated for players of different roles and responsibilities in the team. They examined the players' field position (goalkeepers, defenders, midfielders, attackers), the length of time that these players were members of their team and the number of match participations of each player (first-team or substitute player).

2.3. Measurements / Questionnaires

2.3.1. Cohesion

The perceptions of team cohesion were assessed with the Greek version of the 18-item Group Environment Questionnaire; GEQ [30-32]. The Group Environment Questionnaire assesses the four dimensions of cohesion. Individual Attractions to the Group-Task (ATG-T) is the factor which identifies team-members individual perceptions with regard to their personal involvement to the task. Individual Attractions to the Group-Social (ATG-S) is the factor which identifies team-members individual perceptions in relation to their personal involvement, acceptance and social interaction to the team as a whole. Group Integration-Task (GI-T) is the factor which identifies the team-members individual perceptions on identity, closeness and bonding within the whole group. Group Integration-Social (GI-S) is the factor which identifies the individual perceptions of the team members on identity, closeness, and bonding within the whole group but with regards to its social aspects. Participants rate their consent to items on a 9-point scale anchored by 1 ('strongly disagree') to 9 ('strongly agree'). The reliability coefficients of the Greek version of the questionnaire with sample of team sports were .69 (ATG-T), .75 (ATG-S), .75 (GI-T) and .79 (GI-S).

2.3.2. Cohesion Antecedents

After each match, the researchers collected the line-ups from the score sheets (also including the players who were substitute). At the end of the season, they counted the total number of participations. The categories were then divided according to the total number of participations of each player from low (0-33% of total participations), to middle (34-66% of total participations), and high (67-100% of total participations).

The players filled in the field position which they played more often in their current team (goalkeeper, defender right/left/center/sweeper, midfielder/winger right/left/center, and forward right/left/center). Then, the researchers divided the players in four categories, goalkeepers, defenders, midfielders, and attackers.

The players answered to the question “How long have you been a member of the current team (adult team only)?”. They were divided according to their answers to two different categories, less than one season (<1 seasons) and more than one season (≥ 1 seasons).

2.4. Procedures

The researchers arranged meetings with the 16-teams coaches which participated in the survey. They described them the aims of the study, the ethics about the participants and the dates of the measurements. They arranged dates which all the players could attend so as to give them the questionnaires and also the consent form before the training session. Before the loan of questionnaires, the researchers explained the aims of the study to the players they offered instructions on how to fill in the questions and they assured of the confidentiality of the survey (e.g. only the total team results would be announced and not the players' names). After the end of the study, the researchers presented the conclusions to the teams' staffs and thanked them and the players for their participation.

3. Results

The Cronbach alpha of the Group Environment Questionnaire was satisfied and is presented to the table 1.

Table 1. Cronbachalpha of the Group Environment Questionnaire.

Cohesion	Cronbacha
Task Cohesion	.81
Inter-item correlation	.33 (.11-.56)
Item correlation	.51 (.37-.67)
Social Cohesion	.82
Inter-item correlation	.34 (.16-.55)
Item correlation	.52 (.42-.62)

The figure 1 shows the differences among the players with different number of match participations regarding their task and social cohesion in the end of the season. The MANOVA analysis showed the existence of statistical significant differences in both task and social cohesion among players

with different number of participations [Pillai's Trace= .116, $F_{(2,171)} = 5.267$, $p < .001$, $\eta_p^2 = .058$]. Specifically, the analyses revealed the existence of significant differences for the task cohesion [$F_{(2,171)} = 10.777$, $p < .001$, $\eta_p^2 = .112$] as well as for the social cohesion [$F_{(2,171)} = 5.837$, $p < .01$, $\eta_p^2 = .064$]. Soccer players with low number of match participations revealed lower task and social cohesion than the players with middle and high number of match participations.

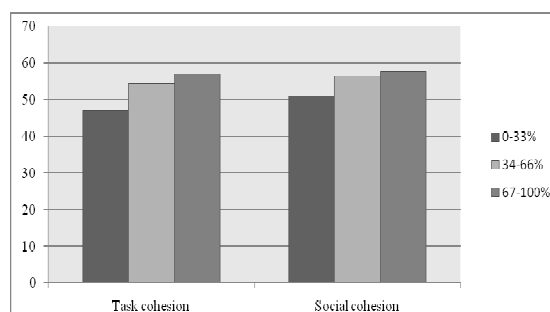


Figure 1. Match participations and cohesion.

The figure 2 shows the differences among players of different field position regarding task and social cohesion at the end of the season. The descriptive statistics showed that the goalkeepers and the attackers presented the highest level of task and social cohesion. However, the results of the MANOVA analysis showed that there were not significant differences neither for task nor for social cohesion among players of different field position at the end of the season [Pillai's Trace= .011, $F_{(3,187)} = .360$, ns , $\eta_p^2 = .006$].

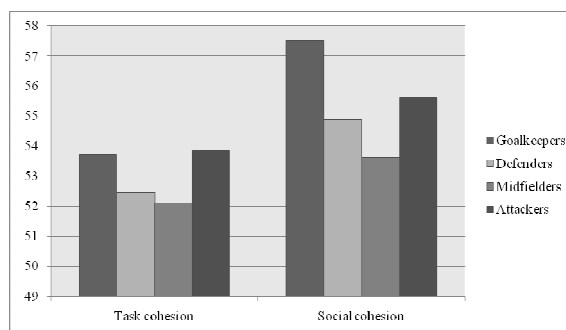


Figure 2. Position and cohesion.

The figure 3 shows the differences among players of different length of team membership as far as task and social cohesion at the end of the season. The descriptive statistics indicated that the players with low length of team membership (less than one season) reveal greater task cohesion and less social cohesion than players with high length of team membership. The MANOVA analysis showed the existence of significant differences in both task and social cohesion among players with different length of team membership [Pillai's Trace= .044, $F_{(1,188)} = 4.350$, $p < .05$, $\eta_p^2 = .044$]. However, more specific analyses showed that there were not statistical significant differences as far as either task [$F_{(1,188)} = 1.219$, ns , $\eta_p^2 = .006$] or social cohesion [$F_{(1,188)} = 2.110$, ns , $\eta_p^2 = .011$].

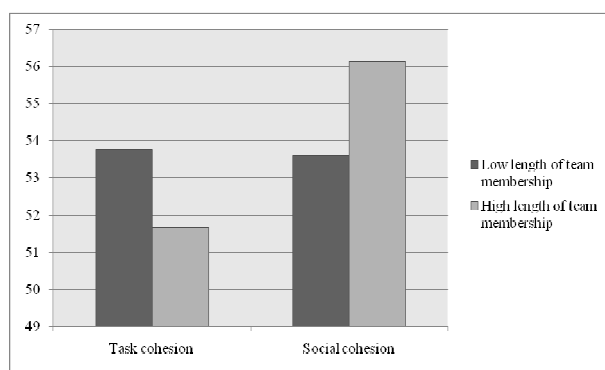


Figure 3. Length of team membership and cohesion.

4. Discussion

As Carron [12] showed in his conceptual model of group cohesion, many factors affect it which are indirectly related to individual and team performance. According to our expectations, soccer team cohesion is affected by the antecedents which were examined in the current study to a greater or lesser extent. The statistical analyses showed that players with different numbers of match participations displayed differences in their perceptions about team cohesion. Specifically, players with fewer match participations perceived lower levels of task and social cohesion than those with more match participations. Literature supports this finding with regards to the differences to the team cohesion perceptions among players of different playing status [22]. Furthermore, other findings support that the number of match participations is related more to the task cohesion of the team [17]. This finding might be explained because of the sense of belonging to the tasks which the first-team players enjoy as they are more responsible for the achievement of these tasks. Moreover, the first-team players reveal higher commitment to the team tasks [19, 23].

The second factor that was examined with regards to its relationship with cohesion was the players' field position. The differences among the players were not significant although the descriptive statistics showed that goalkeepers and attackers displayed the highest levels of task and social cohesion. Defenders' and midfielders' cohesion ranged to middle levels. Goalkeepers and attackers' high levels of cohesion might be a consequence of the high levels of propinquity that they presented [24]. In total, the finding about no significant relationship between cohesion and position in soccer is supported by sport psychology literature that referred to other sports only [17, 25].

The last factor that the current study examined was the length of team membership. The findings revealed differences between players with short and long length of team membership. Players who were in the team for less than a year perceived higher levels of task cohesion and lower social cohesion than players who were in the team for more years. Other findings support this relationship through the connection of performance and the consistency of the

team. Moderator variable for this relationship might be the team cohesion. In addition, players who are in the same team for long, develop more social relationships than the new players who are more oriented to the team tasks [26].

A limitation of the study might be the nature of Greek amateur soccer. In amateur leagues some of the teams pay their players while others not. Even teams that pay some players they do not pay all of them. This probably influences the perceived cohesion of the players. In addition, the amateur participation of the players in training sessions makes it difficult to examine their commitment in teams' schedules (e.g. total number of training sessions that each player was attended).

5. Conclusion

The current study lights the influence of some factors in cohesion of soccer teams. According to our findings, playing status, playing position, and length of team membership, linked to team cohesion. As the relationship between cohesion and performance has already been proved, these findings should be used by the training staff so as to improve cohesion for all the sub-groups of their teams. Coaches should emphasize to players that do not participate in many matches by showing them that they are essential team members. In addition, they should improve the social and task cohesion of players with short and long team membership respectively. It is suggested that future directions in cohesion should be focused on the mediator role of some factors in the relationship between cohesion and performance of soccer teams.

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