

TEAM COHESION AND PERFORMANCE AMONG MALE VOLLEYBALL PLAYERS OF VARIOUS UNIVERSITIES IN KERALA, INDIA



PHYSICAL EDUCATION

Keywords : Team cohesion, volleyball players, gender, universities and Kerala

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ABSTRACT

Cohesion has historically been considered one of the most important variables in the study of small group dynamics and has historically been one of the most frequently studied of group-level constructs. The purpose of the study was to analyse the group cohesion among inter collegiate male volleyball players from four universities of Kerala state. Age of selected students ranged from 18 to 25. The Group Environment Questionnaire (GEQ) developed by Carron, Widmeyer and Brawley (1985) was used to assess group cohesion among the subjects. The ANOVA and LSD post hoc analysis used to find significant difference between groups (performance) on independent variables (individual attraction to group, social individual attraction to group task, group interaction social, group interaction task). Significant differences were found between the performance and Individual Attraction to Group Social and Group Integration-Task of winning team. No significant difference was found between performance and Individual Attraction to Group-Task and Group Integration-Social of loser's team.

I. INTRODUCTION

Team cohesion is "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". The definition incorporates the concepts of task and social cohesion. As a group is usually founded to accomplish a purpose, task cohesion plays a fundamental role in the functioning of every group. Another cohesive force which often develops in time is that of social cohesion among the group's members. Carron, Brawley, and Widmeyer (1998). Accordingly, in the field of athletics, team cohesion is a research topic worth exploring; the level of team cohesion is a key factor most likely to affect players' feeling of satisfaction and sport performance, and team cohesion will help determine the result of a contest (Carron and Chelladurai, 1981; Lu, 1994). Martens and Peterson (1971) found that higher team cohesion will lead to better sport performance. There are also other possible reasons for promoting cohesion. It has been found that adherence behavior (Prapavessis & Carron, 1997), adherence to training schedules (Carron, Widmeyer, & Brawley, 1988), conformity to group norms (e.g., Shields, Bredemeier, Gardner, & Boston, 1995), assuming responsibility for negative outcomes (e.g., Brawley, Carron, & Widmeyer, 1987), tolerance of the negative impact of disruptive events (e.g., Brawley, Carron, & Widmeyer, 1988), and collective efficacy (e.g., Paskevich, Brawley, Dorsch, & Widmeyer, 1999) relate to greater cohesion. There are ways of improving cohesion. Cohesiveness is greater in smaller groups (Widmeyer, Brawley, & Carron, 1990). Cohesion is also boosted by altruism (Prapavessis & Carron, 1997), participation in team goal setting (Brawley, Carron, & Widmeyer, 1993), and democratic leader behavior (e.g., Kozub, 1993; Westre & Weiss, 1991). Cohesion may not

always lead to more effective group performance. Paskevich, Estabrooks, Brawley, and Carron (2001) suggested that cohesion may be associated with pressure to conform, group think and deindividuation. However, studies on the potential harmfulness of team cohesion in the area of sport psychology are few.

Team cohesion is the ingredient that molds a collection of individuals into a team (Cox, 2006). Carron wrote of determinants of team cohesion (Cashmore, 2002). Situational factors such as living with or near each other, sharing hobbies and activities, similar uniforms and clothing, rituals of group cohesion, and a unique distinctiveness as a group. Personal factors, such as commitment and satisfaction, leadership factors, and a democratic style of leadership also support team cohesion. Team factors that support cohesion includes the clarity with which each member understands and accepts his role with the team. Another factor is success. Success in competitive sports increases team cohesion. Further, as was discovered by other researchers, Carron concluded that smaller teams are more cohesive. The purpose of the study was to evaluate team cohesion of male intercollegiate volleyball players belonging four leading Universities in Kerala according their positions in respective inter collegiate tournaments. The result of the study can contribute towards strengthening an awareness of the importance psychological constructs and their application at all levels of the game. It was hypothesized that there would be differences between different position holders in inter collegiate tournaments on the basis of performance in team cohesion attributes of players.

II. MATERIALS AND METHODS

2.1 Participants

The participants in the study were 178 male volleyball players of Kerala University, MG University, Calicut University and Kannur University, who secured first, second, third and fourth position in their respective inter collegiate competitions. The details of the subjects of the study were presented on Table 1:

Table 1: Details of male participants in the study

Group	University	N
1	Kerala University	44
2	MG University	59
3	Calicut University	45
4	Kannur University	30
	Total	178

2.2 Research Design

This study adopted the ex post facto research design. This research design was deemed appropriate for the study on the relationship between team (social and task) cohesion on performance of volleyball teams in the South Zone Inter University Tournaments in India. The independent variables were teams' cohesion (social and task) while the dependant variable was the performance (winners/ runners) in the South Zone Inter University Volleyball Tournaments 2015 season.

2.3 Instrumentation

Group Environment Questionnaire (GEQ) (Brawley et al., 1987). The GEQ assessed perceived cohesion through the use of an 18-item, four scale instrument (3). Four components of cohesion are measured identifying a member's attraction to the group-task (ATG-T), a member's attraction to the group-social (ATG-S), a member's integration into the group-task (GI-T); and a member's integration into the group-social (GI-S) (17). Internal consistency values were $r = .75, .64, .71,$ and $.72$ respectively (3). Responses for this questionnaire were based on a 9-point Likert scale (24). Nine questions referred to participants' personal involvement with the team and nine questions referred to participants' perceptions of their team as a whole. Participants' scores were tallied based on each of the four variables to assess overall group cohesion. The odd numbered questions referred to the social aspects of cohesiveness, whereas the even numbered questions referred to task aspects of cohesiveness. An average was taken for each component (ATGS, GIS, ATGT, and GIT) after being summed for each participant. The participants had respond to items on 1 to 9 strongly disagree and strongly agree between this answer are calculated in the 18 item questions. At the time of calculation maximum score is 9 and lowest score is 1. There are stared questions they are calculated in reverse order and the total score is divided by total questions.

2.4 Administration of Questionnaire

The measurement was conducted over a 1 month of period in 2015 November. The samples were taken from the intercollegiate male volleyball players of Kerala state who

participated in university level competition during 2014-2015 academic years. Group cohesion questionnaire (Carron, Widmeyer and Brawley 1985) was administered to the Sample to assess the team cohesion viz., Individual attraction to group-Task, Individual attraction to group-social, Group interaction-task, and Group interaction -social Participants were given assurances of confidentiality and each provided written consent prior to completing the questionnaires. Most questionnaires were completed following training sessions

2.5 Analyses of Data

The Volleyball players belong to different colleges of four universities in the state of Kerala (Kerala University, M.G University, Calicut University and Kannur University). The univariate analysis of variance (ANOVA) was computed to assess difference on mean scores on group cohesion. The data were analyzed by using SPSS version 20.0 (SPSS inc. Chicago,IL) LSD post hoc analysis was performed when satisfied significance ($p < .05$) was obtained to identify pair wise differences.

III. RESULTS OF THE STUDY

Table 2: Individual attraction to group social, Individual attraction to group task, Group integration social and Group integration task

Variables	Winners (n=44)	Runners(n=59)	Third Position (n=45)	Fourth Position (n=30)
Individual attraction to group social	7.400	6.722	6.618	6.427
Individual attraction to group task	6.6375	6.6051	6.4722	6.1183
Group interaction social	7.09	6.92	6.91	6.53
Group interaction task	6.336	6.220	5.660	5.543

Team cohesion and performance of dependent variable of individual attraction to group social of Winners mean was 7.400 with standard deviation of 0.9058., Runners mean was 6.722 with standard deviation of 1.4302., Third position mean was 6.618 with standard deviation of 1.5123 and Fourth position mean was 6.427 with standard deviation of 1.1371. Team cohesion and performance of dependent variable of individual attraction to group task of Winners mean was 6.6375 with standard deviation of 1.8626., Runners mean was 6.6051 with standard deviation of 1.63179., Third position mean was 6.4722 with standard deviation of 1.53577 and Fourth position mean was 6.1183 with standard deviation of 1.54147. Team cohesion and performance of dependent variable of group interaction social of Winners mean was 7.09 with standard deviation of 1.309., Runners mean was 6.92 with standard deviation of 1.277., Third position mean was 6.91 with standard deviation of 1.411 and Fourth position mean was 6.53 with standard deviation of 0.860. Team cohesion and performance of dependent variable of group interaction task of Winners mean was 6.336 with standard deviation of 1.4317., Runners mean was 6.220 with standard deviation of 1.3805., Third position mean was 5.660 with standard deviation of 1.2337 and Fourth position mean was

5.543 with standard deviation of .8460. The result of the study clearly indicate that winners having higher mean score on all selected dependent variable followed by runners, third position and fourth position. Graphical representations of the mean scores are given in Fig 1.

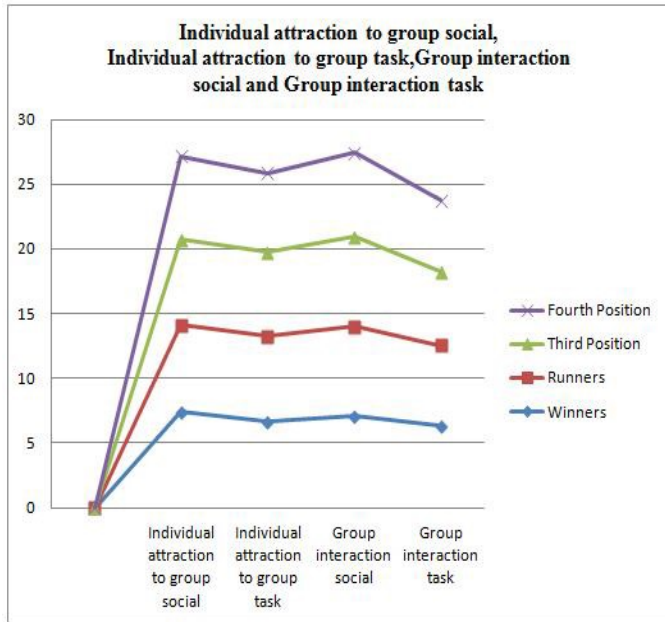


Fig 1: Mean scores of team cohesion and performance of dependent variables of different Universities

Table 3: ANOVA between subject effects

Source	Type III sum of squares	df	Mean	F	Sig
Individual attraction to group social	21.842	3	7.281	4.338	.006
Individual attraction to group task	5.887	3	1.962	.731	.535
Group integration social	5.648	3	1.883	1.181	.318
Group integration task	19.293	3	6.431	3.907	.010

The results of ANOVA reveals that there was a significant differences between team cohesion and performance of variable individual attraction to group social [F (3.154) = 4.338, p=.006] and Group integration Task[F (3.154)=3.907,p=.010]. No significant differences were found between other dependent variables.

Table 4: Post-hoc test on significant Dependent Variable individual attraction to group task

Dependent Variable		Mean Difference (I-J)	Std. Error	Sig.	
ATGS attraction to the group-social (ATG-S)	Winner (M=7.400)	Runner	.6780*	.2581	.009
		Third Position	.7822*	.2747	.005
		Fourth Position	.9733*	.3067	.002
	Runner (M=6.722)	Winner	-.6780*	.2581	.009
		Third Position	.1043	.2564	.685
		Fourth Position	.2954	.2905	.311
	Third Position (M=6.618)	Winner	-.7822*	.2747	.005
		Runner	-.1043	.2564	.685
		Fourth Position	.1911	.3054	.532
	Fourth Position (M=6.427)	Winner	-.9733*	.3067	.002
		Runner	-.2954	.2905	.311
		Third Position	-.1911	.3054	.532
GIT Group integration task	Winner (M=6.336)	Runner	.1160	.2556	.650
		Third Position	.6764*	.2720	.014
		Fourth Position	.7930*	.3038	.010
	Runner (M=6.220)	Winner	-.1160	.2556	.650
		Third Position	.5603*	.2539	.029
		Fourth Position	.6770*	.2877	.020
	Third Position (M=5.660)	Winner	-.6764*	.2720	.014
		Runner	-.5603*	.2539	.029
		Fourth Position	.1167	.3024	.700
	Fourth Position (M=5.543)	Winner	-.7930*	.3038	.010
		Runner	-.6770*	.2877	.020
		Third Position	-.1167	.3024	.700

In team cohesion and performance variable individual attraction to group social Winner and Runner (MD = .6780), Winner and Third Position (MD = .7822) and Winner and Fourth Position (MD = .9733). No significant difference found between Runner and Third Position, Runner and Fourth Position and Third Position and Fourth Position on team cohesion and performance variable individual attraction to group social. In team cohesion and performance variable group interaction task significant difference between Winner and Third Position (MD = .6764), Winner and Fourth Position (MD = .7930), Runner and Third Position (MD= .5603) and Runner and Fourth Position (MD = .6770). No significant difference between Winner and Runner, Third Position and Fourth Position on team cohesion and performance variable group interaction task.

IV. DISCUSSION

Previous research has been conducted in order to identify and explore personal attributes which are associated with performance in sports. Attributes such as self-esteem, pride and competition within a team and attitudes towards other players in a team have both negative and positive effects (Carron, A. V., Bry, S. R., Eys, M. A, 2002). The findings of the present study showed significant differences between performance and Team Cohesion items of the winning male

volleyball team. The performance in volleyball is closely associated with high level of technical efficiency and tactical presentation at times of crisis. The execution of the skills in volleyball like service execution, serve reception, the set attack and defense are being performed individually by a player first. The next action is being done by another player like set, quite supportively and only then the last and final touch being made by an attacker, who approaches and jumps timely, calculating the height, speed and flight of the ball, tries to apply the tactical execution in making the ball to land on the opponent's court by deceiving the defenders. Hence to attain success in each move of action and counter action, the team players on the court must function individually first and then as a group. Here the role of cohesion can be very well seen. Individual Attractions to Group-Task has been given emphasis first, then to the Group Integration-Task. Hence the performance in volleyball is closely related with team cohesion. The items of team cohesion like Individual Attractions to the Group Task have got the higher mean value in the winning teams than that of the losing teams. It further showed that winning teams had a rise in group's cohesion following the game, while losing teams suffered a decline. Indeed, the cohesiveness of the team is likely to influence the team's performance and more so the player's mood. The data revealed that Group Integration social has been given last emphasis than Individual Attraction to the Group Social and here also the winning teams have shown significant differences while compared to that of the losing teams. The performance of the losing teams in almost all the elements of the game were not in par with winning teams and the findings of the data revealed that the mean values of the items of team cohesion like Individual Attraction to the Group-Task, Group Integration-Task. Individual Attraction to Group – Social were found very low compared to that of winning teams and were not significant. The winning team has shown supremacy in performance in most of the elements of the game like Attack, Block and Serve Placement, than the losers' teams and have shown much better team cohesion also. Players' negative interaction in a team hinders social cohesion thus compromising good performance (Grieve, C., Whelan, K., Myres, H. 2000). This attribute may negatively affect social cohesion needed for successful performance in a team. Players in more cohesive teams may hold stronger shared beliefs in their competence, which in turn may lead to greater team success. Ruder and Gill (1982) emphasized that winning teams had a rise in groups cohesion while losing teams suffered a decline. Indeed, the issue of team size and teams' cohesion indicated that the strength of friendship among players increases with decrement in the number of players per team. Ruder and Gill (1982) also reiterated that teams that celebrated their success and embraced a loss collectively were more compact than those who only acknowledged winning alone.

CONCLUSIONS

Significant differences were found between the performance and Individual Attraction to Group Social and Group Integration-Task of winning team. No significant difference

was found between performance and Individual Attraction to Group-Task and Group Integration-Social of loser's team. Based on the conclusions of the study it is recommended that coaches and players need to consider the factor of cohesion in their teams as it is most likely to be related to win-loss patterns in team sports.

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