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An analysis of individual attractions to the group and group integration, resulting in group cohesion among Indian women cricket players

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Abstract
The study was intended to compare the group cohesion among the women cricket players of India. For the purpose of the study various leading teams of the North Zone, India was considered. The subordinate purpose of the study was to investigate the most dominating group cohesion factors among the groups. Various multivariate test was calculated and it was found that the Pillai's trace given a value of 1.45 ('F' Value = 7.47) which was found to be significant at 0.01 level of significance. As this multivariate test was significant, to find out the differences among the groups, in each factor of Group Cohesion like Attraction to group social (ATG-S), Attraction to group-Task (ATG-T), Group Integration-Social (GI-S) and Group Integration- Individual (GI-I) multiple one-way ANOVAs were calculated. It was found that in attraction towards group-Social and Group Integration-Social, there was no significant difference found among the groups, as the calculated 'F' Value for ATG-S and GI-S (2.02 & 2.68 respectively) are smaller than the tabulated value (2.74) at 3.66 degree of freedom at0.05 level of significance. In most of the factors of the GEQ, Women cricketers from Delhi scored better than the other teams.

Keywords: Group cohesion, women cricket, group task, group integration

Introduction
Downcast eyes, tears and dejection. The mood of the Indian women's cricket team at Lord's after the 2017 World Cup final, which they lost by eight runs to host England. Is a frozen frame in the history of women's cricket in our country (Times of India, 2022). Team cohesion and performance have been extensively researched in an attempt to quantify the strength and direction of their relationship. A recent meta-analysis identified Albert Carron and his colleagues to be the most influential researchers within the area of team cohesion (Carron, Colman, Wheeler, & Stevens, 2002) [7], and Carron's (1982) [6] conceptual framework remains widely influential. Early studies established the cohesion-performance relationship, though agreement about which factor is driving this relationship (i.e., cohesion affecting performance or vice versa) has not yet been reached (Carron *et al*., 2002) [7]. Subsequent studies investigated moderating variables of team cohesion in an effort to devise strategies to help develop team cohesion and thus influence performance. Initially, research focused on exploring moderating variables of the cohesion-performance relationship with athletes, including: sport type (i.e. coactive or interactive), gender of the athletes, the performance measure used (i.e. self-report versus actual), and the competitive level of the team (Carron *et al*., 2002) [7].

As a social psychological topic, team cohesion ranks as a very important factor for enhancing team performance and feeling of satisfaction among members. Team cohesion may be defined as "dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals." (Carron, 1982) [6]. Research has consistently shown that a significant relationship exists between team cohesion and athletic performance (Carron & Dennis, 1998; Mullen and Cooper, 1994) [28-29]. This observed relationship is much stronger when task cohesion as opposed to social cohesion is involved, and when interactive as opposed to coactive sports are involved.

Studies conducted on the direction of causality issue have generally supported the position that losing an athletic contest leads to a reduction in perceived team cohesion (Boone *et al*, 1997) [30]. ? "Team cohesiveness" has been identified as a factor that may play a critical role in the success or failure of teams (Ziobro & Dziaasko, 1975) [31]. Many researchers (Carron & Chelladurai, 1981; Landers & Luschen, 1974; Martens & Peterson, 1971; Williams & Hacker, 1982) [32, 33, 34, 35] have postulated that cohesive teams, whose members are held together by the force of a common goal (Carron, 1982) [6], may be more successful. Cohesion has been defined as, "the total field of forces which act on members to remain in the group" (Festinger, Schachter, & Back, 1950) [36].

Team cohesion includes task cohesion and social cohesion. Social cohesion indicates the amount of interpersonal attraction among group members, i.e., the extent that the group allows individuals to reach their desired goal. Task cohesion also includes practical assessment of the level of athlete and team coordinated efforts that show to what extent each team and its members achieve its goals (Carron, Brawley & Widmeyer, 1998) [9]. Team cohesion as a social psychology subject is an important factor that converts a non-regular collection of individuals into a team and plays a significant role in strengthening team performance and the feeling of satisfaction among the members (Moradi, 2004) [23].

The purpose of the present study was to compare the group/team cohesion among the women cricket players of different teams of north zone, India. The subordinate purpose of this study was to investigate the most dominating group cohesion factors among the groups.

Methodology

The study intended to compare the team cohesion among team members of national women's cricket (north zone). Only 71 senior national women cricket players of 5 teams (Jammu & Kashmir N=14, Delhi N=14, Himachal Pradesh N=14, Haryana N=15 and Punjab N=14) of north zone were selected as the subjects for the study. For the collection of the data on the team cohesion of the cricket players the group environment questionnaire (GEQ; Widmeyer, Brawly and Carron, 1985) [8] was used. Group Environment Questionnaire is composed of eighteen items that measure the four team cohesion dimensions and they are – Group integration-social (GI-S), Group integration-task (GI-T), Individual attraction to the –group (ATG-S), Individual attraction to the group-task (ATG-T). In this, each item is anchored to an eight-point Likert scale ranging from 1= strongly disagree to 8= strongly agree.

Results

To examine the hypothesis of the study, the descriptive statistics and comparative statistics like multivariate Analysis of Variance (MANOVA) was used for the data. Table 1 shows the descriptive statistics like mean and standard deviation of women cricket players on various parameters of Group environment.

Table 1: Descriptive Statistics of ATG-T, ATG-S, GI-T and GI-S of Cricket Players from Different States

	J&K		DEL		HP		HR		PB		'f' Value	'P' Value
	M	SD	M	SD	M	SD	M	SD	M	SD		
ATG-T	19.36	+7.29	30.78	+5.81	27.21	+6.20	23.33	+5.08	26.21	+5.94	6.98*	.000
ATG-S	28.71	+6.40	30.28	+3.69	25.21	+5.07	30.13	+5.91	3.14	+6.82	2.02	.102
GI-T	25.50	+5.57	32.57	+7.69	28.07	+5.72	20.66	+2.19	29.21	+4.85	9.63*	.000
GI-S	18.78	+4.77	23.43	+5.77	20.71	+4.92	19.27	+1.98	22.14	+4.11	2.68	.059

Table 1 displays the mean and the standard deviation of various factors of the team cohesion of women cricket players of different states of north zone. The mean and standard deviation scores are also illustrated in the figure 1.

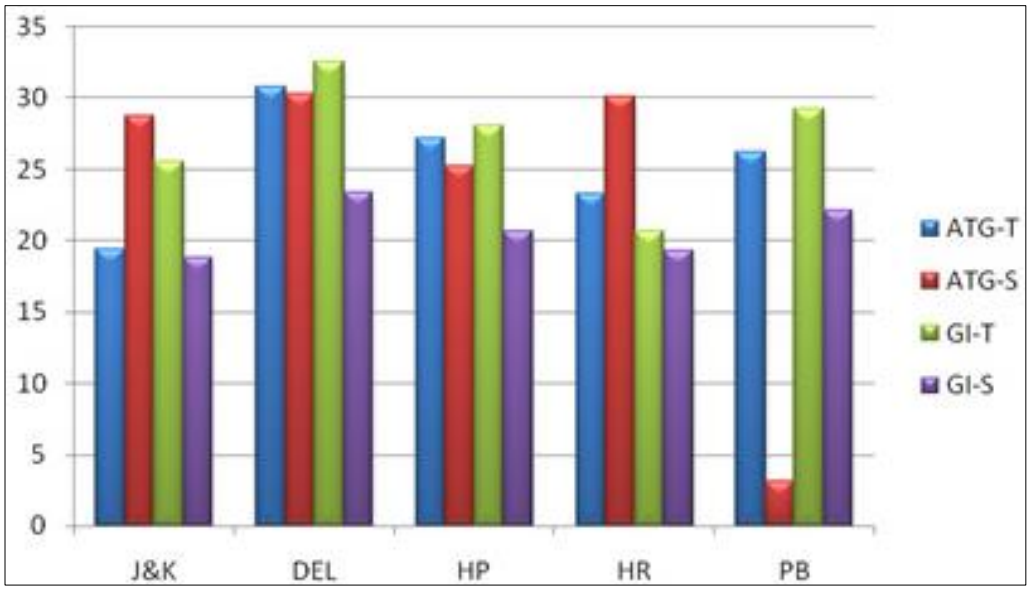

Fig 1: Mean scores of women cricketers in ATG-T, ATG-S, GI-S and GI-I

As there were more than one dependent variable, to find out the collective significant difference among the various groups on the basis of the factors of the group cohesion, various multivariate tests were calculated and it was found

that the pillai's trace given a value of 1.45 ('F' Value= 7.47) which was found to be significant an 0.01 level of significance. As this multivariate test was significant then there was a need to find out the differences among the groups, in each factors of Group environment like ATG-S, ATG-T, GI-S and GI-I. This was found out by calculating multiple one way ANOVAs and the result is displayed in table 2.

Table 2: One–Way Analysis of Variance for Each Dependent Variable

Dependent Variables	Sources of variation	Degree of Freedom	Sum of Squares	Mean sum of squares	'F' Value	P value
ATG-T	Treatment	3	1036.58	259.15	6.98*	.000
	Error	66	2449.62	37.115		
ATG-S	Treatment	3	261.97	65.49	2.02	.102
	Error	66	2139.52	32.42		
GI-T	Treatment	3	1151.55	287.89	9.63*	.000
	Error	66	1971.55	29.87		
GI-S	Treatment	3	214.01	53.50	2.68	.059
	Error	66	1319.29	19.99		

*F Value > 2.74 (with 3, 66 df at 0.05 level of significance)

Table 2 demonstrates the comparison of the women cricket teams from various states of north zone, in each dependent factor of the team cohesion. After the calculation it was found that in attraction towards group- social and Group integration Social, there was no significant difference found among the groups, as the calculated 'F' value for ATG-S and GI-S (2.02 & 2.68 respectively) are smaller than the tabulated value (2.74) at 3, 66 degree of freedom at 0.05 level of significance. Now to find out the mean difference between the groups in each factor of team cohesion, the Scheffes' post-hoc test was conducted and the following results were found.

Table 3: Multiple Comparisons among the Groups in the Dependent Variable where Significant Group Difference was seen

Dependent Variable	Various states (I)	Various states (j)	Mean Difference	'P' Value
ATG-T	Jammu & Kashmir	Delhi	-11.43*	.000
		Himachal Pradesh	-7.86*	.028
	Delhi	Haryana	7.45*	.037
GI-T	Delhi	Jammu & Kashmir	7.07*	.027
	Himachal Pradesh	Haryana	7.40*	.015
	Haryana	Delhi	-11.90*	.000
		Himachal Pradesh	-7.40*	.015
		Punjab	-8.55*	.003

*Mean difference significant at 0.05 level of significance.

In post hoc test each group was compared with other on each particular factors of GEQ separately and the factors and the groups, in which the significant difference were found, are displayed in the table above. The mean difference found between the groups were significant at 0.05 l3v3l of significance. In the above table it is clearly seen that in most of the factors of the GEQ, Delhi woman cricketers excelled than that of other teams.

Discussion and Conclusion

As hypothesized, earlier there was a significant difference found among the different teams of the north zone, as far as the team cohesion is concerned and hence the null hypothesis stands rejected. The purpose of the present investigation was to briefly discuss the team cohesion among the women cricketers, with keeping in mind to contribute to the process of team building. Strength of the current study was, understanding the team cohesion structure of the senior national players, so that this may provide a base on which future studies could be done. Results of the analyses revealed no significant differences in two factors of cohesion i.e. ATG-S and GI-S. This result may be due to the number of participants in each group are very less. This data was collected from the senior national teams from different states. Normally the players come to know each other during the camp before the tournament and the camp hardly lasts for one month (duration is insufficient to know the members of the team and accept them as a part), so maybe this is one of the reasons, why they have scored low in ATG-S and GI-S as well. There is a negative relationship between the depression and team cohesion. In a recent study, Henderson, Bourgeois, Le Unes, and Meyers (1998) [38] examined the cohesion-depression relationship. Among a female Division 1 basketball team, athletes who scored at the two extremes in perceptions of team task cohesion (i.e., high and low) reported lower depression (as well as confusion and total mood disturbance) than athletes scoring in the intermediate range in their perceptions of team cohesion. As there was no measure was taken to access the depression of the female cricketers, the depression may be another reason why cricketers were not significantly different in all of the factors of GEQ.

In summary, the qualitative portion of the study revealed that the team building intervention programme produced some positive results. We feel that our goal of beginning an exchange of information about the topic of team- building by providing a theoretical and methodological rationale has been accomplished. We concur with Grove *et al*. (1990) [37] who noted that more applied research studies are required if our field is to continue to grow. We hope that this article will bring attention to the topic team-building and encourage other practitioners to conduct research and offer new frameworks on this fascinating topic of team dynamics.

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