



## Research Article

ICFFL Goa Conference|2025

## Comparative Analysis of Team Cohesion between Female Football and Hockey Players of 38th National Games 2025

Mr. Usham Lanthoiba<sup>1</sup>, Mr. Seejbond Wakambam<sup>2</sup>, Ms. Maibam Brainee<sup>3</sup>, Ms. Teresa Nongthombam<sup>4</sup>, Ms. Sylvia Nongthombam<sup>5</sup>, Dr. Sapam Sanatombi Devi<sup>6</sup>

Department of Physical Education, National Sports University, Imphal, Manipur.

## Article History

Received: 01.07.2025

Accepted: 20.08.2025

Published: 25.09.2025

## Citation

Lanthoiba, U., Wakambam, S., Brainee, M., Nongthombam, T., Nongthombam, S., Devi, S. S. (2025). Comparative Analysis of Team Cohesion between Female Football and Hockey Players of 38th National Games 2025. Goa Conference 2025 Fit for Life: Empowering Youth Through Physical Education, Sports and Traditional Sports. *Indiana Journal of Agriculture and Life Sciences*, 147-150. Indiana Publications.

**Abstract:** The Group Environment Questionnaire (GEQ), developed by Carron, Widmeyer, and Brawley in 1985, evaluates cohesion in sports teams. It distinguishes between two primary factors, group cohesion and individual cohesion, further divided into four subscales: Individual Attractions to the group-social (ATGS), Individual Attractions to the Group - Task (ATGT), Group Integration - Social (GIS), and Group Integration - Task (GIT). The study aims to explore the differences in team cohesion between female National Games football and field hockey players from Manipur. The methodology involved a sample of 36 female athletes-18 from football and 18 from field hockey participating in the 38th National Games of India in 2025. Data was collected using the GEQ, with random sampling employed for player selection. The analysis utilized a t-test for independent samples via SPSS software to assess statistical significance. Results indicated that female hockey players exhibited significantly higher individual attraction to the group task (ATGT = 8.81) than their football counterparts. However, the researchers found no significant differences in other cohesion factors between the two sports. While task-related attraction may vary, overall group cohesion remains comparable across these teams. The findings contribute to understanding how team dynamics among female athletes differ within various sports contexts. The GEQ's effectiveness in measuring these constructs supports its continued use in sports psychology research, emphasizing the importance of cohesion in enhancing team performance and athlete satisfaction. Further researchers could expand on these findings by examining additional variables influencing team cohesion across different sports disciplines.

**Keywords:** Team cohesion, National Games, Female, Field hockey, Football.

Copyright © 2025 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0).

## INTRODUCTION

Cohesion has been characterized in a variety of ways in the past. There is one term that is most commonly used and recognized in the sports world. Team cohesion is a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives (Carron, 1982). Cohesion in team sports improves teamwork, communication, and trust, leading to better performance, motivation, and a supportive environment, ultimately increasing success and fostering a positive team culture.

Team cohesion is essential for female athletes as it enhances motivation, communication, and performance. A strong bond between teammates fosters trust, cooperation, and unity, leading to better coordination on the field. It also boosts mental toughness and morale, helping athletes overcome challenges and stress. Additionally, team cohesion reduces conflicts, encourages mutual support, and creates a positive team environment, ultimately contributing to overall success and satisfaction in sports.

Female participation in team sports has increased dramatically, encouraging perseverance, leadership, and teamwork. Women have the opportunity to enhance their skills, form social bonds, and feel

empowered through team sports. However, there are distinctions between hockey and football with regard to team dynamics, gameplay, and tactical requirements. Because football is a dynamic activity, it fosters individual inventiveness, flexibility, and decision-making, which might result in differences in task cohesiveness. Hockey, in comparison, is more structured and demands fast passing, coordinated movements, and tactical discipline, which leads to more task cohesiveness. Although both sports place a strong emphasis on teamwork, hockey requires a more planned and methodical approach, whereas football frequently depends on sudden tactics. These distinctions affect how female players interact with their teams; hockey's organized play strengthens task cohesiveness, while football's fluid style promotes social cohesion. Coaches can improve performance and team dynamics in both sports by customizing training regimens with an understanding of these differences.

The study analyzes two sports to identify factors enhancing team cohesion, providing insights for coaches, athletes, and sports psychologists to improve performance and develop tailored team-building programs.

## REVIEW OF RELATED LITERATURE

Singh, Mitra *et al.* (2020) The purpose of the study was to evaluate group cohesion among Indian women's national soccer players. 120 athletes, ages 15 to 25, were chosen from a variety of northeastern state clubs and academies. Cohesion was measured using the Group Environment Questionnaire (Carron *et al.*, 1985), which had 18 items with a 9-point Likert scale. Four subscales were examined by the questionnaire: Group Integration-Social (GI-S), Group Integration-Task (GI-T), Individual Attractions to the Group-Social (ATG-S), and Individual Attractions to the Group-Task (ATG-T). A one-way ANOVA and descriptive statistics were used in the data analysis, with a significance level of 0.05. Players older than 19 years old demonstrated greater cohesion than their younger counterparts, according to the data, which showed significant differences across all sub-scales of group cohesiveness.

Choudhary *et al.* (2022) The study compared the group cohesion of female Kabaddi, basketball, and handball players at L.N.I.P.E. in Gwalior, M.P. Purposive sampling was used to choose 36 individuals, all of whom were proficient and consistent players, ranging in age from 18 to 26. Using Albert V. Carron's General Environment Questionnaire (GEQ), team sports were the independent variable and group cohesion was the dependent variable. The test was given under the guidance of an expert to reduce biases and mistakes. At the 0.05 level of significance, data analysis using SPSS 25 with one-way ANOVA and an honest significant difference (HSD) post-hoc test showed a significant difference in group cohesion, with the Kabaddi team showing the highest level of cohesion among the three sports.

Thakur *et al.* (2015) The aim of the study was to determine the degree of teamwork among Kabaddi players at the college and university levels. Forty competitors, twenty-one college-level and eighteen university-level, were randomly selected from the state of Chhattisgarh to compete in an Inter-Sector (Regional) tournament. The data were analyzed using descriptive statistics and an independent t-test with SPSS 16.0, with a significance threshold of 0.05 for the selected variable, team cohesion. The results showed that players at the university level demonstrated more team cohesion and had higher mean scores than those at the college level. They demonstrated increased collaboration, proximity perception, group connection, resemblance to teammates, and like for teammates.

### OBJECTIVE OF THE STUDY

- The purpose of the study was to compare the difference in team cohesion between female national games football and hockey players of Manipur.

### HYPOTHESIS

- It was hypothesized that there would be significant difference in team cohesion between female national games football and field hockey players of Manipur.

### SIGNIFICANCE OF THE STUDY

- The study will be helpful in identifying and differentiating in team cohesion between
- female national games football and hockey players of Manipur.
- The present study will be useful for coaches, researcher, sports psychologist to grasp the situation regarding this matter and take up necessary actions for development of team cohesion.
- The study will be helpful in coaches and team managers to tailor their training and motivational strategies in order to enhance mental resilience in the team.

## METHODOLOGY

### Selection of the subjects

The purpose of the study was to compare in team cohesion between female national games football and hockey players of Manipur. To achieve the purpose of study, a total of 36 female athletes-18 from football and 18 from field hockey participating in the 38<sup>th</sup> National Games of India in 2025. And those players whose age ranging from 18 to 25 years were selected as the subject of the study.

### Selection of the test

Data was collected by using GEQ (group environment questionnaire) developed by Carron, Widmeyer, and Brawley in 1985, with random sampling method were employed for player selection. The analysis utilized a t-test for independent samples via SPSS software to assess statistical significance.

### Research design

The study was based on comparative analysis, descriptive method and quantitative research in nature since we have used numerical data to collect data from questionnaire using Likert scale.

### Statistical analysis

The following statistical technique was used to estimate the difference of team cohesion between female national games football and hockey players of Manipur. To test whether there was any significant difference in team cohesion between the means of selected female footballer and hockey players of Manipur. By using **Group Environment Questionnaire (GEQ)**, developed by Carron, Widmeyer, and Brawley in 1985, evaluates cohesion in sports teams. Then to analyse the collected data, descriptive analysis and t-test for independent samples. By using via SPSS software to assess statistical significance. Independent t-test was computed. The

independent t-test ratio was computed and tested at 0.05 level of significance.

### Analysis and Interpretation of Data

Researchers used **Group Environment Questionnaire (GEQ)**, developed by Carron, Widmeyer, and Brawley in 1985, evaluates cohesion in sports teams. It distinguishes between two primary factors, **group cohesion** and **individual cohesion**, further divided into four subscales: Individual Attractions to the group-social (ATGS), Individual Attractions to the Group - Task (ATGT), Group Integration - Social (GIS), and Group Integration - Task (GIT). To gather relevant data about group cohesion between female National Games football and field hockey players from Manipur. A total of 36 female athletes-18 from football and 18 from field hockey participating in the 38<sup>th</sup> National Games of India in 2025 were taken as a subjects of the study.

The finding of the study suggest that female football and field hockey players differ significantly in their Individual Attractions to the Group-Task (ATGT), with hockey players (ATGT = 8.81) show a stronger task-related attachment to their team. This implies that hockey players might be more driven and dedicated to the team's overall objectives. But overall unity, belonging, and teamwork appear to be similar in both sports, as evidenced by the lack of significant difference in Individual Attractions to the Group-Social (ATGS), Group Integration-Social (GIS), and Group Integration-Task (GIT). Implying that overall unity, belonging, and teamwork are comparable across both sports. The differences in task cohesiveness could be caused by variations in gameplay structure, tactics, and team relationships. These findings demonstrate the significance of task cohesiveness in team performance and indicate that in order to better understand team dynamics in female sports, future studies should examine other elements like coaching philosophies, team cultures, and leadership positions.

## RESULTS

Results indicated that female hockey players exhibited significantly higher individual attraction to the group task (ATGT = 8.81) than their football counterparts. However, the researchers found no significant differences in other cohesion factors between the two sports. While task-related attraction may vary, overall group cohesion remains comparable across these teams.

## DISCUSSIONS

Team cohesion, characterized by the unity, trust, and commitment among team members, plays a pivotal role in sports performance. It is typically divided into task cohesion, focusing on goal-oriented collaboration, and social cohesion, centered on personal bonds within the team. The present study compared team

cohesion between female football and field hockey players in the National Games of Manipur using the Group Environment Questionnaire (GEQ). Results revealed that while overall cohesion was similar between the two sports, field hockey players exhibited significantly stronger task cohesion (Individual Attraction to Group Task) compared to football players. This could be attributed to the more structured, synchronized nature of hockey, which emphasizes positional discipline and continuous coordination. The study also aligns with previous research by Singh, Mitra *et al.* (2020), Choudhary *et al.* (2022), and Thakur *et al.* (2015), which highlighted factors like age, competition level, and sport-specific demands in influencing team cohesion. The findings suggest that coaching strategies should focus on strengthening task cohesion in football while maintaining social cohesion in both sports. Future research should dig into the evolution of team cohesion over time and explore the role of leadership, coaching styles, and cultural differences to provide a deeper understanding of team dynamics in diverse sports contexts.

### Discussion of Hypothesis

Hypothesis of the study state that there would be significant difference in team cohesion between female national games football and field hockey players of Manipur.

The findings of the study revealed that female hockey players exhibited significantly higher individual attraction to the group task (ATGT = 8.81) than their football counterparts. Hence alternate hypothesis is accepted.

## FINDINGS

The statistical analysis revealed a significant difference in team cohesion between female football and hockey players participating in the 38<sup>th</sup> National Games 2025. The difference in cohesion levels may be attributed to the nature of the sport, team dynamics, and training structures. Hockey players demonstrated a higher individual attraction to the group-task (ATGT = 8.81), indicating a stronger connection to their team's collective goals compared to football players. The study found no significant difference in other cohesion subscales, including Individual Attractions to the Group-Social (ATGS), Group Integration - Social (GIS), and Group Integration - Task (GIT). This suggests that while task-related cohesion varies, the overall team cohesion remains comparable between the two sports.

The calculated t-value = 4.21 was greater than the tabulated t-value = 2.03 at  $p = 0.001$  ( $p < 0.05$ ), confirming a statistically significant difference in task-related cohesion. However, no significant differences were observed in social cohesion factors.

Hence, the study clearly shows that team cohesion, especially task-related attraction, plays a crucial role in team sports like football and hockey. The findings suggest that coaches and sports psychologists should focus on team-building strategies to enhance cohesion, ultimately leading to improved performance and athlete satisfaction. Further research could explore additional factors, such as leadership, team culture, and psychological aspects, to gain deeper insights into team dynamics in female sports.

## CONCLUSION

The study comes to the conclusion that female football and hockey teams' dynamics and performance are greatly influenced by team cohesion. According to the results, hockey players had substantially stronger task cohesion (ATGT = 8.81) than football players, even though total cohesion is comparable across the two sports. This implies that because hockey is an organized and coordinated activity, players may be more committed to team goals and have a better feeling of responsibility. Social cohesiveness elements, on the other hand, showed no discernible variations, suggesting that team integration, unity, and trust are maintained at similar levels in both sports. The results of this study show how crucial task cohesiveness is in affecting team performance and recommend that managers, coaches, and sports psychologists put tactics in place to improve team dynamics, especially in football, where task cohesion was lower. In addition to highlighting the need for more research into other aspects like leadership, team culture, and psychological influences to improve our understanding of team dynamics in female sports, the study confirms the usefulness of the Group Environment Questionnaire (GEQ) in assessing team cohesion.

## REFERENCE

1. Carron, A. V., Bray, S. R., & Eys, M. (2002). Team cohesion and team success in sport. *Journal of Sports Sciences*, 20(2), 119–126.
2. Halbrook, M., Blom, L. C., Hurley, K., Bell, R. J., & Holden, J. E. (2012). Relationships among motivation, gender, and cohesion in a sample of collegiate athletes. *Journal of Sport Behavior*, 35(1), 61–77.
3. Kanik, M., & Özçelik, İ. Y. (2023). Investigation of group cohesion and achievement motivation levels of hockey national team athletes. *International Journal of Education Technology and Scientific Researches*, 8(24), 2571–2584.
4. Mohd. Shariff, A. R., Javed, S., & Salimim, N. (2024). The impact of hockey coaches and team cohesion on the performance of players. *Asian Social Science*, 12(4), 74.
5. Muthiane, C. M., Rintaugu, E. G., & Mwisukha, A. (2015). The relationship between team cohesion and performance in basketball league in Kenya. *International Journal of Applied Psychology*, 5(3), 90–95.
6. Özdemir, İ., & Sevilmiş, A. (2021). The relationship between group cohesion and team achievement: The case of University Handball 2nd League teams. *Mediterranean Journal of Sport Science*, 4(2), 193–209. <https://doi.org/10.38021/asbid.904958>
7. Peter, V. F. (2014). The study of group cohesion and aggression between All India Inter University and National female hockey players.
8. Raymond, M. R. (1995). The relationship between team success and within-group differences in group cohesion. (*Unpublished doctoral dissertation*).
9. Singh, N., & Mitra, S. (2020). Cohesiveness among national level women soccer players: A comparative study. *International Journal of Physical Education, Sports and Health*, 6(1), 126–129.
10. Zardoshtian, S., & Khazae, S. (2017). The association of coaching behavior with group cohesion and collective efficacy of female players in Iranian hockey professional league. *Sport Management Studies*, 9(41), 211–232.