International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 23s, 2025
https://theaspd.com/index.php

Impact of Pre and Post Competition Anxiety of Kabaddi Players During Inter Faculty Tournament at Banaras Hindu University

Mr. Abhishek Pandey[1*], Mr. Shashank Kumar Rai[2], Dr. Linet khakha[3], Mr. Stanzin Kunphel[4], Mr. Roshan Maurya[5]

[1*]Research Scholar, Department of Physical Education, Faculty of Arts, Banaras Hindu University Varanasi 221005. abhishekpnd@bhu.ac.in

[2]School Teacher (9-10), Department of Education, Gov. Of Bihar. shashankrai.9211@gmail.com

[3]Assistant Professor, Department of Physical Education, Faculty of Arts, Banaras Hindu University Varanasi 221005. linet@bhu.ac.in

[4]Research Scholar, Department of Physical Education, Faculty of Arts, Banaras Hindu University Varanasi 221005. stanzinkunphel@bhu.ac.in

[5]Research Scholar, Department of Physical Education, Faculty of Arts, Banaras Hindu University Varanasi 221005. mauryaroshan365@gmail.com

ABSTRACT

Background: *Competition anxiety significantly affects athletes' performance, particularly in high-pressure sports such as Kabaddi. This study aimed to examine the impact of an intervention on pre- and post-competition anxiety levels among inter-faculty Kabaddi players.* ***Methods:*** *A total of 48 inter-faculty Kabaddi players participated in the study. Pre- and post-competition anxiety scores were measured using standardized scales. Data were analysed using paired sample statistics, paired correlation, paired t-test, and effect size estimation (Cohen's d and Hedges' g) to assess the impact of the intervention on anxiety levels.* ***Results:*** *The results revealed a significant reduction in anxiety levels from pre-test (M = 18.96, SD = 2.81) to post-test (M = 16.77, SD = 1.91). Paired correlation analysis indicated a moderate positive relationship between pre- and post-scores (r = 0.344, p = 0.017). The paired t-test showed a statistically significant decrease in anxiety (mean difference = 2.19, t (47) = 5.41, p < .001) with a 95% confidence interval ranging from 1.37 to 3.00. The effect size analysis demonstrated a large effect (Cohen's d = 0.780; Hedges' g = 0.774), indicating the intervention had a substantial practical impact.* ***Conclusion:*** *The findings confirm that the intervention effectively reduced competition anxiety among inter-faculty Kabaddi players. This significant reduction, supported by both statistical and practical evidence, suggests the potential value of implementing similar anxiety-reduction strategies in sports training programs.*

Keywords: *Competition anxiety, Kabaddi players, paired t-test, effect size, intervention impact, sports psychology.*

INTRODUCTION

Competition anxiety is a common psychological factor that influences athletes' performance, especially in high-intensity sports like Kabaddi. Players often experience heightened levels of stress before and after matches due to performance expectations, fear of failure, and physical demands of the game. Such anxiety can affect decision-making, concentration, and overall team coordination. This study focuses on assessing the impact of pre- and post-competition anxiety among inter-faculty Kabaddi players at Banaras Hindu University, aiming to provide insights for better psychological preparation and performance enhancement. The role of anxiety in sports is crucial as it can directly impact an athlete's performance, decision-making, and overall psychological well-being. Anxiety in sports typically manifests in two forms: state anxiety and trait anxiety.

State Anxiety refers to temporary feelings of anxiety that arise before, during, or after a competition. This type of anxiety is situational, and it fluctuates based on the stressors present at that particular moment (Whiteley, 2013). In the context of Kabaddi, state anxiety could be particularly high before the match due to the intense nature of the sport, where players need to remain focused, quick, and physically resilient (Naik & Chinte,2023).Trait Anxiety, on the other hand, refers to an individual's general tendency to experience anxiety in various situations, regardless of the circumstances (Sanioğlu et al., 2017). Athletes with high trait anxiety may feel anxious regularly and may have more difficulty managing anxiety before and during competitions, potentially hindering their performance (Whiteley, 2013).The impact of anxiety on athletes in sports like Kabaddi is multifaceted. Anxiety can lead to narrowed focus,

where players might struggle to assess the situation as a whole and react only to immediate threats. This can affect their decision-making process, causing them to overlook important cues and opportunities in the game (Upadhyay, 2024). For example, in Kabaddi, where quick thinking and effective communication are vital, anxiety can impair a player's ability to make split-second decisions, coordinate with teammates, or execute techniques with precision (Singh & Chaudhary, 2022).

Objective of the study

The objective of this study is to examine the impact of competition on the anxiety levels of Kabaddi players during the Inter-Faculty Tournament at Banaras Hindu University.

METHODS AND MATERIAL

The present research employed a cross-sectional design to measure the pre- and post-competition anxiety levels of Kabaddi players participating in the Inter-Faculty Kabaddi Tournament at Banaras Hindu University. Anxiety was assessed using the Sport Competition Anxiety Test (SCAT), developed by Martens (1977), which is a standardized and widely recognized tool for evaluating competitive anxiety in athletes.

- Pre-competition data: Collected 30–45 minutes before the match.
- Post-competition data: Collected immediately after the match.

The collected data were subjected to descriptive statistics, paired samples correlation, paired t-test, and effect size analysis (Cohen's d and Hedges' g) to evaluate the impact of competition on anxiety levels. A significance level of $p < 0.05$ was considered.

Selection of Subjects

The study sample included 48 male Kabaddi players from different faculties of Banaras Hindu University, selected through purposive sampling. Only official team members who voluntarily agreed were included, ensuring varied experience and skill levels. Informed consent was obtained from all participants.

Selection of Variables

The primary variable of the study was competition anxiety, measured at two stages:

- Pre-competition anxiety (before the match)
- Post-competition anxiety (after the match)

Criterion Measures

The Sport Competition Anxiety Test (SCAT) developed by Martens (1977) was used as the criterion measure for evaluating anxiety levels. The SCAT includes items assessing physiological symptoms, emotional states, and anxiety-related thoughts experienced in competitive environments. Players' scores on the SCAT were recorded both before and after competition to determine changes in anxiety levels.

Ethical Considerations

Informed consent was obtained from all participants. Participants were assured that their responses would remain confidential and that participation was voluntary. Players will have the right to withdraw from the study at any time without consequence.

RESULTS

The analysis compared players' anxiety levels before and after competition.

The descriptive statistics show that the average **Pre-Score** ($M = 18.96$, $SD = 2.81$) was higher than the **Post-Score** ($M = 16.77$, $SD = 1.91$) among 48 participants, indicating a decrease in anxiety after the intervention. The standard error of the mean was smaller for the Post-Score ($SE = 0.28$) than for the Pre-Score ($SE = 0.41$), suggesting greater consistency in post-competition scores.

Table 1 Descriptive Statistics of Pre- and Post-Competition Anxiety Scores

Measure	Mean	N	Std. Deviation	Std. Error Mean
Pre-Score	18.96	48	2.813	0.406
Post-Score	16.77	48	1.905	0.275

The **paired samples correlation** between Pre- and Post-Scores was r = 0.344 (p = .017), indicating a moderate and statistically significant positive relationship. This means that participants with higher pre-test anxiety also tended to report higher post-test anxiety, even though overall scores decreased.

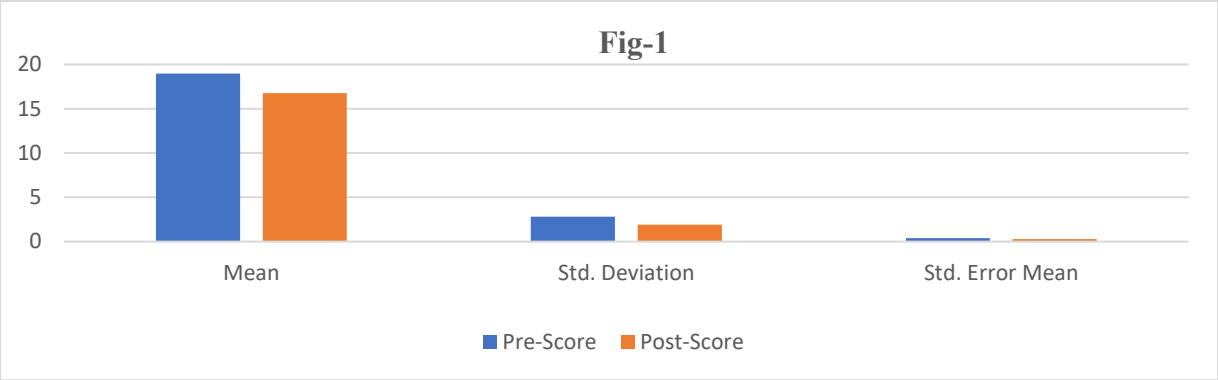

Fig. 1: Graphical representation of Mean, Standard Deviation, and Standard Error Mean of Pre-Score and Post-Score.

Table 2 Paired Samples Correlation between Pre- and Post-Scores

Pair	N	Correlation (r)	Sig. (p)
Pre-Score & Post-Score	48	0.344	0.017

The analysis revealed a moderate positive correlation between pre- and post-scores (r = 0.344, p = .017). Despite this, the paired t-test showed a significant reduction in anxiety after competition, with a mean decrease of 2.19 points (t(47) = 5.41, p < .001, CI [1.37, 3.00]). These results confirm that competition led to a meaningful drop in players' anxiety.

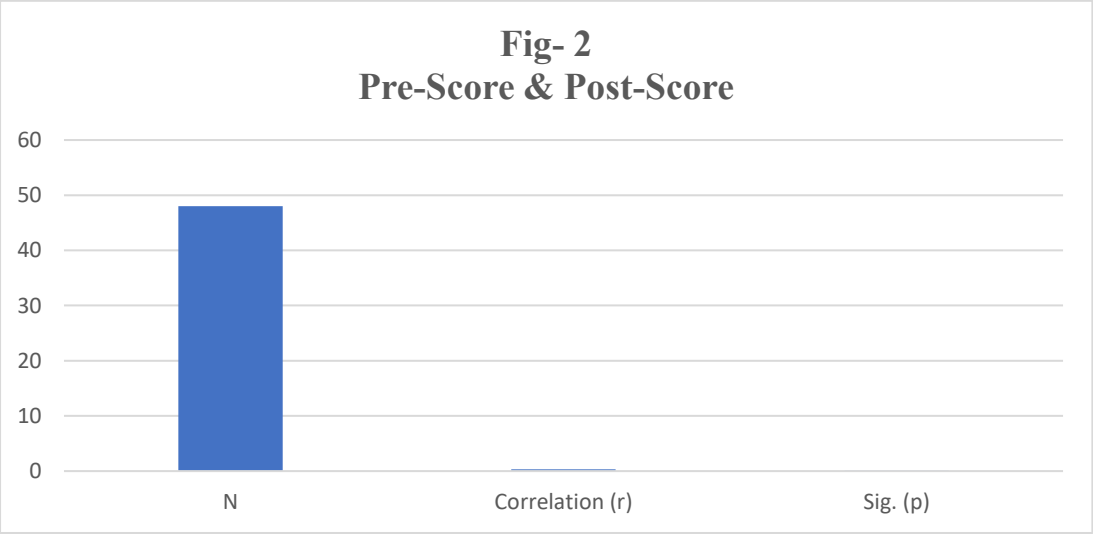

Fig. 2: Graphical representation of sample size (N), correlation coefficient (r), and significance value (p) for Pre-Score and Post-Score relationship.

Table 3 Paired Samples t-Test of Pre- and Post-Competition Anxiety Scores

Pair	Mean Difference	Std. Deviation	95% CI Lower	95% CI Upper	t	df	Sig. (2-tailed)
Pre-Score – Post-Score	2.188	2.803	1.374	3.001	5.407	47	<.001

Effect size analysis further supported the practical significance of the intervention. Cohen's d was 0.780, and Hedges' g was 0.774, both indicating a **large effect size**. This suggests that the intervention meaningfully reduced competition-related anxiety. The 95% confidence intervals (Cohen's d: 0.453–1.101; Hedges' g: 0.450–1.092) confirm the robustness of this effect.

International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 23s, 2025
https://theaspd.com/index.php

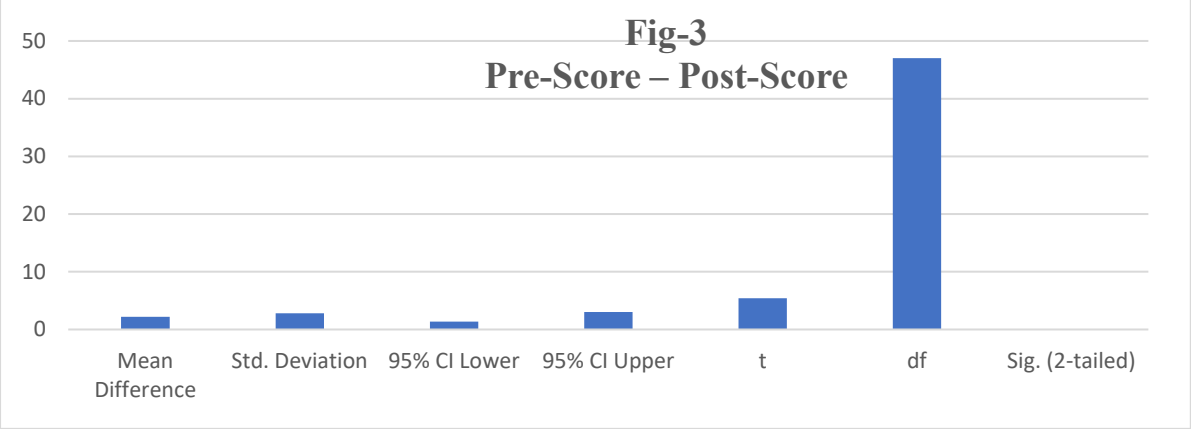

Fig. 3: Graphical representation of statistical values (Mean Difference, Standard Deviation, Confidence Interval, t-value, degrees of freedom, and significance) for Pre-Score and Post-Score comparison.

Table 4 Effect Sizes for Paired Differences (Pre- vs. Post-Scores)

Effect Size	Estimate	95% CI Lower	95% CI Upper
Cohen's d	0.780	0.453	1.101
Hedges' g	0.774	0.450	1.092

Overall, players' anxiety scores significantly decreased after competition. The reduction was both **statistically significant (p < .001)** and **practically meaningful (large effect size)**, showing that the intervention had a strong impact on lowering competition-related anxiety among inter-faculty kabaddi players.

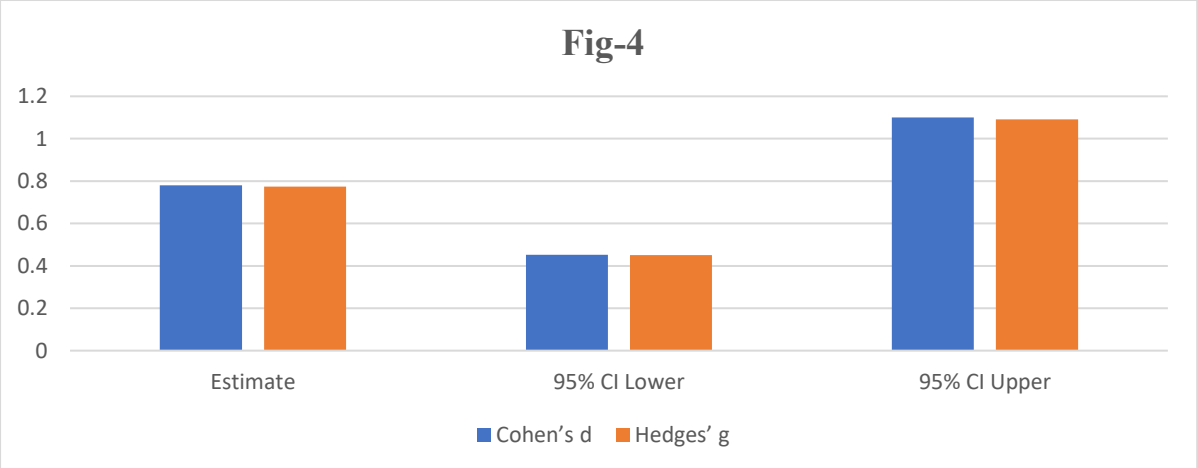

Fig. 4: Graphical representation of effect size (Cohen's d and Hedges' g) with 95% Confidence Interval (CI) estimates for lower and upper bounds.

DISCUSSION

The present study aimed to examine the effect of the intervention on competition anxiety levels among inter-faculty Kabaddi players. The results clearly demonstrated a significant reduction in anxiety scores following the intervention. The mean pre-competition anxiety score (M = 18.96, SD = 2.81) was higher than the post-competition score (M = 16.77, SD = 1.91), suggesting that the players experienced lower levels of anxiety after the intervention. This reduction is both statistically significant and practically meaningful, as confirmed by the paired samples t-test and the effect size analysis.

The paired samples t-test showed a mean difference of 2.19 points ($t(47) = 5.41$, $p < .001$), indicating that the decline in anxiety levels was unlikely due to chance. This result is further supported by the confidence interval (1.37–3.00), which confirms that the decrease in anxiety was consistent across

participants. The effect size was large (Cohen's d = 0.780; Hedges' g = 0.774), highlighting that the intervention had a substantial impact in reducing pre-competition anxiety.

The paired sample correlation (r = 0.344, p = 0.017) revealed a moderate positive relationship between pre- and post-scores. This suggests that although anxiety levels decreased overall, players who reported higher anxiety before the intervention tended to remain relatively higher in anxiety after the intervention compared to their peers. In other words, while the intervention was effective in lowering anxiety levels across the group, individual differences in baseline anxiety persisted.

The significance of these findings lies in the fact that competition anxiety can negatively affect athletic performance, focus, and confidence. By reducing anxiety levels, the intervention may have helped the players enhance their mental readiness and improve their chances of performing optimally in competitive settings. The large effect size underscores the practical importance of the intervention, suggesting that such approaches may be beneficial if implemented more broadly across teams and sports.

However, it is important to note that the correlation between pre- and post-scores, while significant, was moderate. This indicates that not all players benefited equally from the intervention. Some athletes may require more personalized or prolonged strategies to address their anxiety effectively. Moreover, since the study was limited to inter-faculty Kabaddi players, caution must be exercised in generalizing the findings to athletes from other sports or competitive levels.

In summary, the study demonstrates that the intervention significantly reduced competition anxiety among Kabaddi players, with a large and meaningful effect size. The results confirm both the statistical and practical significance of the findings, while also pointing to the need for further research to explore individual differences and the applicability of such interventions in diverse sporting contexts.

CONCLUSION:

In conclusion, the findings clearly demonstrate that the intervention was effective in reducing competition anxiety among Kabaddi players. The statistically significant results and large effect sizes highlight the practical importance of incorporating anxiety management strategies into sports training programs. Such interventions can help improve athletes' mental preparedness, reduce performance-related stress, and ultimately enhance their overall performance in competitive sports settings.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this study. The research was conducted independently, without any financial, personal, or professional relationships that could have influenced the findings or interpretation of the results.

REFERENCES

- **Sopa, I. S., & Pomohaci, M. (2020).** Discovering the anxiety level of a basketball team using the SCAT questionnaire. Timisoara Physical Education & Rehabilitation Journal, 13(25).
- **Indrieş, M., & Bochiş, L. (2019).** Sport anxiety, test anxiety and academic performance of primary school pupils: A correlational study. Health, Sports & Rehabilitation Medicine, 20(4).
- **Sahu, S., & Pandey, R. (2017).** Effect of pre-competition anxiety on performance in team sports: A study on Kabaddi players. Journal of Sports Science & Medicine, 16(4), 507–512.
- **Singh, V., Prakash, S., Punia, S., & Kulandaivelan, S. (2017).** Relationship between pre-competition anxiety and performance levels in inter-university women football teams. International Journal of Physical Education, Sports and Health, 4(5), 136-139.
- **Goodger, K., & Broadhead, S. (2016).** Managing the anxiety of performance. Sport Psychiatry, 17–29.
- **Khan, A., & Sorate, B. A. (2016).** A comparative study of sports competition anxiety within Jimma University male players of different sports. Journal of Tourism, Hospitality and Sports, 17(1), 38–41.
- **Kerketta, I. (2015).** A comparative study of sports competition anxiety between district level male volleyball and soccer players. International Journal of Physical Education, Sports and Health, 1(3), 53–55.
- **Athan, A. N., & Sampson, U. I. (2013).** Coping with pre-competitive anxiety in sports competition. European Journal of Natural and Applied Sciences, 1(1), 1–9.
- **Koche, H. J., & others. (2011, November).** Comparative study of sports competitive anxiety among state level baseball players. International Referred Research Journal.
- **Singh, A., & Gaurav, V. (2011).** A study of pre-competitive and post-competitive anxiety level of inter-collegiate volleyball players. International Journal of Sports Science and Engineering, 5(4), 237–241.
- **Craft, L. L., Magyar, T. M., Becker, B. J., & Kilpatrick, M. (2003).** The effect of psychological intervention on the anxiety and performance of athletes. The Sport Psychologist, 17(4), 406–429.
- **Jones, M. (2002).** Performance anxiety in sports: An overview of research and implications for coaching. International Journal of Sport Psychology, 33(1), 101–125.

- **Jones, M., & Hanton, S. (2001).** Pre-competitive anxiety in sport: A review of the literature. Anxiety, Stress, & Coping, 14(3), 243–268.
- **Gould, D., Tuffey, S., Udry, E., & Loehr, J. (1996).** Burnout in competitive athletes: The role of competitive anxiety. International Journal of Sport Psychology, 27(3), 198–212.
- **Martens, R., Vealey, R. S., & Burton, D. (1990).** Sport Competition Anxiety Test (SCAT). Human Kinetics.
- **Spielberger, C. D. (1983).** Manual for the State-Trait Anxiety Inventory (Form Y). Consulting Psychologists Press.