



## AN EMPIRICAL STUDY ON ANXIETY OUTCOMES DURING CRITICAL COMPETITIVE SITUATION OF TRIBAL AND NON-TRIBAL SOCCER PLAYERS

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### Abstract:

**Background:** In sports, success and failure are invariably correlated with physiological and psychological markers. **Objectives:** The aim of the research is to assess the intensity and direction of anxiety fluctuations experienced by tribal and non-tribal soccer players in Tripura. **Materials and Methods:** A modified version of the Mental Readiness Form-Likert (MRF-2) with the use of the retrospective recall method was completed by soccer players (N-200). **Results:** According to the ANOVA findings, while somatic anxiety in both groups varies during the match from a moderate to high level, cognitive anxiety remains largely constant in a worried state. The findings also showed that self-confidence makes a significant difference in both groups' ability to execute soccer skills. **Conclusion:**

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The study concludes that individual differences in how anxiety is perceived and how stressful game circumstances are handled affect how well athletes perform.

**Keywords:** fluctuation, anxiety, intensity, direction, soccer

## 1. Introduction

In the course of the life cycle, children develop in a context where they encounter both favourable and unfavourable circumstances. They can control the unfavourable circumstance to some extent in some cases and not in others. Those who deftly handle the circumstances are rising to the top, and vice versa. Every individual is unique (Sylvia *et al.*, 2014) and have their own way of style to execute the proficiency. As a result, perfection strategies are improved, which leads to managing the situations and keeping themselves in a better position. Similarly, in sports, when a young pupil starts to play with ball, bat, or else, they are enjoying all the bodily actions in an unorthodox way at the beginning, but simultaneously, they become familiar with different kinds of actions and situations by knowingly or unknowingly, and become an experienced one. Later on stage, athletes are gaining to develop various psycho-physical qualities, i.e., physical and mental processes to understand the body-mind mechanism. Athletes learn various skills in different ways with their perception (Rodríguez Macías *et al.*, 2022).

At the same time, coaches and trainers are preparing short and long-term training modules to improve athletes' skills and performance. After achieving a certain level of performance by an athlete, coaches are pushing them into competitive situations where multiple situational pressures are visualized. During this period, athletes feel various physiological and psychological homeostasis disturbances in the body like muscle tautness, muscle buffering, speedy heartbeat and breathing, shakiness in body movements, sweating, alteration in skin color, unbalanced mental state, decrease in concentration, lower decision-making process and so on (Furrer *et al.*, 2023).

All symptoms indicate a sense of stress and react against the stress, which becomes anxiety (Beesdo *et al.*, 2009). Every individual mental process is different and reacts differently in a different set of situations. The situation of anxiety and performance relationship is interesting and still unexposed. Generally, athletes are anxious more or less most of the time during competition situations (Zhang *et al.*, 2018). This anxiousness arises from arousal, emotion, and cognition reaction to a particular stimulus. The reacted stimuli are based on an athlete's perception as a threat (Rowland *et al.*, 2021) or expectation. It is associated with psychological and physiological states, resultant in multiple changes that occur in the body. Some changes are pleasant, and some are unpleasant. The pleasant psycho-physiological changes are perceived as beneficial, and unpleasant psycho-physiological changes are perceived as harmful (Hagtvet & Hanin, 2007) to an athlete's performance.

## 2. Anxiety Intensity and Direction

The identification of anxiety and its gross impact on performance is hidden. Understanding the hiding phenomenon of anxiety and its effects on sports performance is judged only by the depth of behavioral and conceptual knowledge of an individual (Ford *et al.*, 2017a). Based on multidimensional anxiety, cognitive and somatic anxiety, along with self-confidence, is the best predictor of an athlete's performance (Craft *et al.*, 2003). The parameters (cognitive, somatic, and self-confidence) are to what extent fluctuate (increase or decrease) and in which direction (facilitative or debilitating) has to move under different pressure situations is the main aim of competitive anxiety study (Mellalieu *et al.*, 2006). Generally, the assessment of competitive anxiety is done by the volume of intensity and direction of anxiety. The term 'intensity' is the level of symptoms experienced by the athlete, and the direction component of anxiety is an athlete's perception of whether a specific intensity level of anxiety is facilitative or debilitating in relation to performance (Ford *et al.*, 2017b).

## 3. Background Study

Crazy youth are playing soccer in every corner of the country in the world. Few are playing for entertainment purposes, and few are playing for their passion towards professional purposes. Those who are playing professionally practice innumerable hours to improve techniques, tactics, etc. and as a whole to improve sports performance. During the process of performance improvement, players receive a high level of mental and physical training. The training field has also quickly adopted scientific and pedagogical methods of training. The training process provides room for individual players to ensure the capacity to cope with the load that involves competitive play. In the last few decades, coaches have felt that players' best performance cannot be possible without psychological or mental preparation. Psychologists believe that physical training along with psychological preparation is essential for success in the shortest time. All soccer-dominated countries are working on it, and numerous hours are spent with trainees to train them (like- how to dominate an opponent, execute tactics, techniques in the different set of situations and game-changing plans, etc). In the context of Indian, the youth of the country grew a remarkable interest in the field of soccer. As evidence, the Indian Super League has been organized by the All India Football Federation and private organizations since 2013. Various private franchises have their team in the aforementioned leagues and interestingly, most of the players of different teams are from Northeast India. North-Eastern states are producing a bulk number of soccer players for India (Farooque *et al.*, 2023). It is possible only because 27% people are Mongolian race (Indian constitution as Scheduled Tribes or STs, K. R. Dikshit and Jutta K. Dikshit 2013; B. Tripura 1978) having the support of physical, hereditary as well as geographical living structure helps them to succeed over the vigorous activities. In addition, an interesting point about the region is that the people are so much influenced by Western culture, and most of the Western

countries are dominant in the soccer field. Likewise, the youth of this region were attached and interested in soccer. Other parts of the country also produce a number of players but less than this region.

In the context of Tripura, the state has a similar type of Mongolian race and has possessed all qualities that are favorable to soccer and similar games. Undoubtedly, mastery of the various soccer techniques is the prime requirement. But technical analyzers, coaches, trainers, players, researchers, and private organizations are continuously trying and investigating to locate the reasons and find out the remedies (if any). From this vantage point, the researcher is attempting to comprehend the players' degree of anxiety, which may have a positive or negative impact on their performance. The purpose of the current research is to ascertain how Tripura's tribal and non-tribal soccer players' fluctuate anxiety level in terms of intensity and direction.

#### **4. Material & Methods**

A total of 200 male soccer players (100 tribal and 100 non-tribal) are chosen from among the various groups in Tripura. The sample is drawn using the random sampling method and all participants are chosen from the well-known soccer competitions in Tripura that are sanctioned by the Tripura Football Association.

Competition situations are composed of different multitudinous known and unknown psychological and physiological features. Often, these features fluctuate during crucial situations in the game. Researchers also reported that player's mental components fluctuated rapidly throughout the game, whereas physiological components were observed at the beginning of the game. As the study focuses on anxiety fluctuations, the components of anxiety, i.e. cognitive anxiety, somatic anxiety and self-confidence, are treated as independent variables.

A quick technical introduction to the Mental Readiness Form- Likert (MRF-2) was organised the day before the match in order to clarify and comprehend each statement. It can be given in a brief period of time, even during a soccer half, and has a shorter survey (Butt *et al.*, 2003). At the Tripura soccer competitions, the paper was distributed. After reading each statement, the participants circled the proper number to indicate their agreement or disagreement. To the right of each sentence, the participants describe their current feelings. The MRF-2 takes between 5 and 15 seconds to complete on average, and all data were collected from each participant during the allotted time period by having them finish the MRF-2 during that time.

Data on anxiety and self-confidence were gathered using the retrospective recall method (Joanne Butt *et al.*, 2003). The method required data collection while playing an ongoing game, and it was much more logical. Soccer is a continuous game, making it challenging to gather data in between plays and to get players and team management to respond appropriately to pressure situations. The retrospective recall method was used to decrease inaccurate scores or to elicit accurate answers from players. Using the Canon EOS 700D model, the researcher recorded video of soccer matches, which were then

shown to the participants (using a Panasonic projector and an HP laptop) and their memories of the events were solicited. To meet the study's goals, a number of statistical analyses were used. In order to analyses the data, descriptive statistics were used. The two-way analysis of variance (ANOVA) was used to investigate the variations in state anxiety and self-confidence of tribal and non-tribal soccer players in Tripura. These analyses were used to determine whether participants' levels of anxiety and confidence fluctuated throughout the game. It was deemed appropriate for the current research to set the level of significance (P) at 1%, 5%, and 10% level of confidence(Cheng *et al.*, 2009).

## 5. Descriptive Statistics

The fluctuations of anxiety components in terms of intensity and direction of soccer players of Tripura, mean and standard deviation were computed, and data connectable to this have been presented in Table 1.

**Table 1:** Descriptive statistics

Variables	Pre-game M±SD		First-half M±SD		Second-half M±SD	
	Tribal	Non-Tribal	Tribal	Non-Tribal	Tribal	Non-Tribal
Cognitive Anxiety Intensity	7.36 ± 2.603	7.66 ± 2.571	7.45 ± 2.096	7.42 ± 2.442	7.02 ± 3.035	7.64 ± 2.653
Cognitive Anxiety Direction	0.75 ± 1.629	1.80 ± 1.089	1.53 ± 1.298	1.90 ± 1.15	1.17 ± 1.564	0.58 ± 1.832
Somatic Anxiety Intensity	6.96 ± 2.663	7.33 ± 2.854	6.84 ± 2.326	6.26 ± 2.631	5.46 ± 2.858	7.80 ± 2.773
Somatic Anxiety Direction	0.74 ± 1.629	0.52 ± 1.915	0.60 ± 1.831	0.58 ± 1.821	1.12 ± 1.604	0.34 ± 1.843
Self-confidence Intensity	5.35 ± 1.971	4.99 ± 1.767	5.33 ± 2.198	4.69 ± 1.398	5.10 ± 2.714	6.09 ± 2.804
Self-confidence Direction	0.77 ± 1.632	1.63 ± 1.405	1.14 ± 1.875	1.79 ± 1.305	0.97 ± 1.69	0.26 ± 1.968

**Source:** Author's calculation.

It can be observed from Table 1 that the cognitive anxiety intensity mean value of tribal soccer players' was higher at first-half time of the match and declined at the second-half time. Whereas, non-tribal players' cognitive anxiety intensity mean value was constant throughout the match.

The psychological component of cognitive anxiety varies depending upon individual to individual and situations. In case of cognitive anxiety, the direction of tribal players' mean value was lower at the pre-game and higher at first-half time of the match. Whereas, the non-tribal mean value was higher at first-half and lower at the second-half of the match.

Somatic anxiety intensity mean values of tribal soccer players' were constant at the pre-game and first-half time of the match and decline at the time of second-half. Whereas, the non-tribal players' somatic anxiety intensity mean values were mostly constant at pre-game and second-half and slightly declined at first-half time. In-case-of the somatic anxiety direction, the mean value of tribal players' was diversified across the match, whereas non-tribal players' mean values mostly similar at the pre-game and first-half of the match and decreased at second-half time.

Tribal players' self-confidence intensity mean values were constant throughout the match whereas non-tribal players' self-confidence intensity mean values were mostly constant at pre-game and first-half and increased at second-half time. In-case-of self-confidence direction, tribal players' mean value was lower in pre-game situations and higher in first-half of the match. Whereas non-tribal players' self-confidence direction mean value was higher at first-half time and lower at second-half of the match.

## 6. Cognitive Anxiety Intensity

As per multidimensional anxiety theory, cognitive anxiety fluctuated across the performance (Joanne Butt, *et al.* 2003) and how much fluctuated was based on the player's performance (success or failure). The interesting thing is that the player's success and failure are the direction indicators in which the intensity worked. To identify the level of fluctuation in cognitive anxiety intensity and direction, the two-way analysis of variance (ANOVA) was computed with at 1%, 5% and 10% level of confidence.

**Table 2:** Cognitive anxiety intensity of tribal and non-tribal players

	Source of Variance	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F	Significance
Tribal players	Between	2	10.287	5.143	0.74	0.478
	Within	99	642.037	6.485	0.933	
	Total	299	2028.37			
Non-tribal players'	Between	2	3.547	1.773	0.28	0.756
	Within	99	686.053	6.93	1.093	
	Total	299	1945.387			

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

It is evidenced (Table 2) that there was no significant difference in cognitive anxiety intensity of tribal players during different phases of the match. Cognitive anxiety intensity fluctuates, but these fluctuations are not significant. In the case of the non-tribal player, the pattern was similar to that of tribal players, which means no significant difference was found in the result.

## 7. Cognitive Anxiety Direction

**Table 3:** Cognitive anxiety direction of tribal and non-tribal players

	Source of Variance	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F	Significance
Tribal players	Between	2	30.48	15.24	6.723	0.001***
	Within	99	222.917	2.252	0.993	
	Total	299	702.25			
Non-tribal players	Between	2	108.78	54.39	28.2	0.000***
	Within	99	198.863	2.009	1.041	
	Total	299	689.53			

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

**Table 4:** Paired mean of cognitive anxiety direction of tribal and non-tribal players

	Mean			Mean Difference	Significance Value
	Pre-game	First-half	Second-half		
Tribal players	0.75	1.53		0.780***	0.000***
	0.75		1.17	0.42	0.122
		1.53	1.17	0.36	0.211
Non-tribal players	1.63	1.79		0.09	0.891
	1.63		0.26	1.230***	0.000***
		1.79	0.26	1.320***	0.000***

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

It was revealed (Table 3) that there was a significant difference in the cognitive anxiety direction of tribal players. To find out the paired mean differences, the Fisher's Least Significant Difference (LSD) post-hoc test was conducted and the result showed (table-4) that there was a significant difference between pre-game and first-half at P<1% level of confidence. Rest of the time points, there was no significant difference found.

In case of non-tribal, there were significant differences at two different time points i.e., pre-game and second-half; first-half and second-half at P<1% level of confidence. There was no significant difference in other time points.

## 8. Somatic Anxiety Intensity

Multidimensional anxiety theory suggested that somatic anxiety is to dissipate rapidly once the performance begins (Joanne Butt, *et al.* 2003). To identify the level of fluctuations on somatic anxiety intensity and direction, the two-way analysis of variance (ANOVA) was computed with at 1%, 5% and 10% level of confidence.

**Table 5:** Somatic anxiety intensity of tribal and non-tribal players

	Source of Variance	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F	Significance
Tribal players	Between	2	138.96	69.48	9.937	0.000***
	Within	99	661.747	6.684	0.956	
	Total	299	2185.08			
Non-tribal players	Between	2	121.927	60.963	8.464	0.000297***
	Within	99	826.437	8.348	1.159	
	Total	299	2374.437			

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

**Table 6:** Paired mean of somatic anxiety intensity of tribal and non-tribal players

	Mean			Mean Difference	Significance Value
	Pre-game	First-half	Second-half		
Tribal players	7.00	6.80		0.12	0.945
	7.00		5.50	1.500***	0.000***
		6.80	5.50	1.380***	0.001***
Non-tribal players	7.33	6.26		1.070**	0.015**
	7.33		7.80	0.45	0.463
		6.26	7.80	1.520***	0.000***

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

The results of somatic anxiety intensity of tribal and non-tribal players' revealed that there was a significant difference during different phases of the match. To find out the paired mean differences, the LSD post-hoc test was conducted, and results show (Table 6) that at two different time points, i.e., between the pre-game and second-half, between first-half and second-half were found significant differences at P<1% level of confidence. No other significant difference was found among the tribal players.

In the case of non-tribal players at different time points, significant differences were found, i.e., in between pre-game and first-half at P<5% level of confidence; in between first-half and second-half at P<1% level of confidence. No significant difference was found between pre-game and second-half situations.



## 9. Somatic Anxiety Direction

**Table 7:** Somatic anxiety direction of tribal and non-tribal players

	Source of Variance	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F	Significance
Tribal players	Between	2	14.48	7.24	2.944	0.055*
	Within	99	310.947	3.141	1.277	
	Total	299	812.28			
Non-tribal players	Between	2	3.12	1.56	0.399	0.671
	Within	99	254.213	2.568	0.657	
	Total	299	1030.88			

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

**Table 8:** Paired mean of somatic anxiety direction of tribal players'

	Mean			Mean Difference	Significance Value
	Pre-game	First-half	Second-half		
Tribal players	0.74	0.60		0.14	0.803
	0.74		1.12	0.38	0.203
		0.60	1.12	0.520*	0.052*

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

The somatic anxiety direction of tribal players fluctuated throughout the match. The LSD post-hoc test was conducted, and results (Table 8) showed that a significant difference was found among the tribal players during different phases of soccer matches. In detail, a significant difference was found between first-half and second-half at  $P < 10\%$  level of confidence. No significant differences were found at other different time points.

In the case of non-tribal players, it was noticeable that there has been no significant difference in somatic anxiety direction during different phases of soccer matches. That means the fluctuations of the somatic anxiety component in terms of direction did not fluctuate significantly throughout the soccer match.

## 10. Self-confidence Intensity

To see the fluctuation of self-confidence intensity and direction of tribal and non-tribal soccer players', the data were analyzed by adopting a two-way analysis of variance (ANOVA) and to assess the significant difference between the mean. The F-values thus obtained were tested at 1%, 5% and 10% level of confidence.

**Table 9:** Self-confidence intensity of tribal and non-tribal players

	Source of Variance	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F	Significance
Tribal players	Between	2	3.86	1.93	0.387	0.68
	Within	99	604.387	6.105	1.224	
	Total	299	1595.72			
Non-tribal players	Between	2	108.667	54.333	12.188	0.000***
	Within	99	397.903	4.019	0.902	
	Total	299	1389.237			

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

**Table 10:** Paired mean of self-confidence intensity of non-tribal players

	Mean			Mean Difference	Significance Value
	Pre-game	First-half	Second-half		
Non-tribal players	4.99	4.69		0.3	0.575
	4.99		6.09	1.100***	0.001***
		4.69	6.09	1.400***	0.000***

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

Analysis of the variance of self-confidence intensity of tribal players indicated that there had been no significant difference during different phases of soccer matches. That means independent variables, i.e. self-confidence in terms of intensity, did not fluctuate significantly throughout the match among the tribal players.

In the case of non-tribal soccer players' significant differences were found throughout the match. The LSD post-hoc analysis was (Table 10) revealed that at two different time points, significant differences were observed. In detail, significant differences were found between the pre-game and second-half; first-half and second-half at P<1% level of confidence. No significant difference was found between pre-game and first-half time of the match.

## 11. Self-confidence Direction

**Table 11:** Self-confidence direction of tribal and non-tribal players

	Source of Variance	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F	Significance
Tribal players	Between	2	6.86	3.43	1.175	0.311
	Within	99	316.853	3.201	1.097	
	Total	299	901.52			
Non-tribal players	Between	2	141.447	70.723	26.131	0.000***
	Within	99	211.253	2.134	0.788	
	Total	299	888.587			

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

**Table 12:** Paired mean of self-confidence direction of non-tribal players

	Mean			Mean Difference	Significance Value
	Pre-game	First-half	Second-half		
Non-tribal players	1.63	1.79		0.16	0.771
	1.63		0.26	1.370***	0.000***
		1.79	0.26	1.530***	0.000***

**Significance:** \*\*\* => 1%, \*\* => 5%, \* => 10%

**Source:** Author's calculation.

The ANOVA result (Table 11) indicated that the self-confidence direction of tribal players is not significantly different during the different phases of soccer matches. This means that the directional component of self-confidence did not fluctuate significantly during the match.

In the case of non-tribal players' significant differences were found at different time points. The LSD post-hoc results (Table 12) showed that significant differences were found between pre-game and second-half time point; first-half and second-half time point at  $P < 1\%$  level of confidence. Apart from that, no other significant difference was found.

## 12. Discussion

The finding of the study indicates that the cognitive anxiety intensity has not changed significantly with regard to tribal and non-tribal players during different phases of soccer matches. The result also reveals that cognitive anxiety intensity in both groups is mostly at a constant level throughout the match. In addition, this level of cognitive anxiety, as indicated by the raw data of Mental Readiness Form-Likert has appeared to fluctuate (i.e., decrease and increase again depending upon situations) across the match. It is attributed to the fact that both the group cognitive anxiety is moderate in the worried state. The possible reasons are: the perceived feeling of winning or losing and pressure to perform well in the game has created an imbalance in the mental process, which leads to a worried state. In those situations, the players are not able to handle or minimize the anxiety. Here, the researcher observed that both the category of players needed to undergo certain psychological or mental training before the tournament and in practice sessions. The results of cognitive anxiety intensity of both groups have shown not significant due to the similar feeling of success (win) and failure (loss) of the match. Whereas, the catastrophe model (Hardy and Fazey, 1987) proposes that an increase in cognitive anxiety can have a positive influence on performance at low levels of physiological arousal. The result of the study agrees with the findings of (Chamberlain & Hale, 2007). Therefore, with respect to the cognitive anxiety intensity of tribal and non-tribal players, the  $H_1$  is rejected.

Based on the results, the cognitive anxiety direction of both groups was found to have significant differences. In detail, tribal players' directional interpretation of cognitive anxiety fluctuated between pre-game and first-half at  $P < 1\%$  and in non-tribal

players between pre-game and second-half; first-half and second-half at  $P < 1\%$  of the match. Thus, we can say that mental pressure always remains present among the players and continues as the situational pressure increases. One clear picture came out that non-tribal players feel more mental pressure in comparison to tribal players. A possible explanation is that non-tribal players' feeling of win or loss expectation has hampered their skills. Moreover, both the group players have perceived their anxiety as being more helpful in decreasing their performance. It is important to highlight that there is no fixed pattern to indicate that the same players have the same beliefs about the perceptions of anxiety. This point gives toward the idea that the tribal and non-tribal players are interpreting their cognitive anxiety symptoms may not remain stable and can change depending upon their own state of feeling about match situations and opponent strategies. The research finding of (Thomas *et al.*, 2011) agrees with the present result. Therefore, with respect to the cognitive anxiety direction of tribal and non-tribal players, the  $H_1$  is accepted.

The somatic anxiety intensity of tribal and non-tribal soccer players is changed significantly throughout the match. In detail, intensity level fluctuated between pre-game and second-half; between first-half and second-half at  $P < 1\%$  among the tribal players, whereas non-tribal fluctuated between pre-game and first-half at  $P < 5\%$ ; between first-half and second-half at  $P < 1\%$  of the match. That means both groups felt moderate to high levels of somatic anxiety. The physiological components of somatic anxiety symptoms are visible in both the group players. That also indicated that the players' somatic intensity did not decrease once the performance began; the moderate level of somatic anxiety remained relatively stable throughout the match. It happened because the players' playing strategies were rapidly changed, and so was the rapid change in the game. In such situations, the players were not able to stabilize their psycho-physiological state of mind, which resulted in increased worries and emotional phenomena which affected their skills and body movements. Research has supported the prediction that a combination of high cognitive anxiety and low physiological arousal leads to significantly better performance, as well as the combination of high physiological arousal and high cognitive anxiety leading to significantly worse performance (Gabrys & Wontorczyk, 2023). The findings are quite significant with the conclusion of Joanne Butt, *et al.* 2003. Therefore, with respect to the somatic anxiety intensity of tribal and non-tribal players, the  $H_1$  is accepted.

The finding of the study indicates that the somatic anxiety direction of tribal players has been found to be a significant difference at a low level  $P < 10\%$ , whereas non-tribal players have been found not significant. The finding indicates that the somatic anxiety does not decrease, and it is moderately present throughout the game. As a result, somatic anxiety reacts as a less facilitative effect on the performance. These points suggest that both the groups' interpretation of their somatic anxiety symptoms may temporarily change depending upon the situation demanded during the match, and curiosity of winning (mental processes) among the players has created lots of sensitive physiological indices that help to decrease players' performance. The finding of (Mercader-Rubio *et al.*,

2023) supported the present study. Therefore, the somatic anxiety direction of tribal  $H_1$  is partially accepted, and in the case of non-tribal players, the  $H_1$  is rejected.

The self-confidence intensity of tribal players has not fluctuated significantly during different phases of soccer matches. A constant level of self-confidence intensity is visible among them. Here, the researcher draws out the reason for such a result, that the way they feel the situations directly affects their skills, movements, etc., resulting in a less optimistic attitude towards the game. The findings are quite supportive of the conclusion of Bruce D. Hale and Adam Whitehouse in 1998. According to multidimensional anxiety theory, the two components (cognitive and somatic anxiety) are different and influence behavior differently (Jerome & Williams, 2000). So, it might be possible that these two components help bring the third factor, i.e., self-confidence, to a constant level. This point supports the study of Martens, *et al.* 1990. Earlier in the cognitive anxiety section, it was mentioned that the tribal players feel less mental pressure compared to non-tribal. Regarding self-confidence, one important point might be to help the tribal players, especially in the Tripura region way they manage different and difficult geographical, economic as well as sociological conditions for their livelihood that may be knowingly or unknowingly implemented in various critical situations of the match. Hence, the other factors associated with players are not considered in the study; a future-specific study based on geographical, economic, sociological and other factors is required for a better understanding of tribal behavior. From the above conclusion, it can be said that the intensity of self-confidence in tribal  $H_1$  is rejected.

Results of non-tribal players with regard to self-confidence intensity found significant differences. In detail, self-confidence intensity level significantly fluctuated between pre-game and second-half; first-half and second-half at  $P < 1\%$ . The increased level of cognitive and somatic anxiety from pre-game to second-half leads to higher confidence level (based on Table 2). Hence, the progress level of confidence in the second-half at optimum level (approach towards the final whistle) helps to create a more optimistic attitude to win the game. As per the multidimensional anxiety concept, if a high level of cognitive and somatic anxiety with a high level of self-confidence leads to better performance. Findings of the study supported by Martens, *et al.* 1990. Therefore, with respect to the self-confidence intensity of non-tribal players, the  $H_1$  is accepted.

Directional interpretation of tribal self-confidence is not found to be significant because tribal players are not optimistic enough about their performance to create low levels of confidence in comparison to non-tribal players. Whereas the non-tribal directional dimension fluctuates between pre-game and second-half; first-half and second-half at  $P < 1\%$  level of confidence. It happens because a more optimistic attitude at the final stage of the game with positive feelings leads to a better confidence level. The result highlights that the intensity of self-confidence is precisely less facilitative in the directional interpretation among the tribal in comparison to non-tribal players. In the butterfly catastrophe model (Hanton *et al.*, 2004), the role of self-confidence proposes that when cognitive anxiety is high with high physiological arousal for a longer time along with high self-confidence, it suffers a decrease in performance. Finding these has

encouraged the researcher to conclude that the direction dimension is a more sensitive indicator than the intensity with regard to sport-related state anxiety.

## 12. Conclusions

It was discovered that the same player does not hold the same beliefs about the perception of anxiety in order to comprehend the fluctuations of anxiety in terms of intensity and direction of tribal and non-tribal soccer players of Tripura. The research also shows that players' perceptions of their performance in a game, whether they won or lost, have put them under mental pressure. (cognitive anxiety). The non-tribal players' elevated levels of cognitive and somatic anxiety from before the game to the second half create higher levels of confidence, which in turn creates a more upbeat mindset towards winning the game. Once the contest starts, the somatic intensity does not diminish. Among the players, it has maintained a moderate standard. This is a result of players' quick changes in game situations and tactics. In order to handle pressure situations, the researcher noticed and recommended that tribal and non-tribal players in this area receive individual/group game counselling as well as mental training during practice sessions.

The research points out the shortcomings of the multidimensional anxiety theory with respect to somatic anxiety (Randle & Weinberg, 1997). Furthermore, advocates the use of a more comprehensive architecture to lessen players' anxiety. The results of this research cannot be generalised because the players' attitudes are specific to the local environments, despite the fact that they offer insightful information about lowering players' anxiety in the case of Tripura. Therefore, in order for future researchers in this field to overcome the difficulties faced by the players in this region of India, each study asks for a case-specific analysis.

Further, in future, there is a requirement for in-depth study on anxiety and performance, especially in this region where people have to understand the unique tribal culture and their livelihood activities, along with other factors like geographical, economic, and sociological aspects which play an essential role in the context of tribal soccer players.

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### **Authors' Contribution**

All authors have contributed equally to the study design, data analysis, presentation of results, drafting and revising of the original manuscript. All authors have read and approved the final sort of the manuscript.

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Data are available upon request to the corresponding author.

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All participants were informed in detail about the study protocol the potential risks and benefits, and prior to participating in the study, they signed the consent statement.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

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