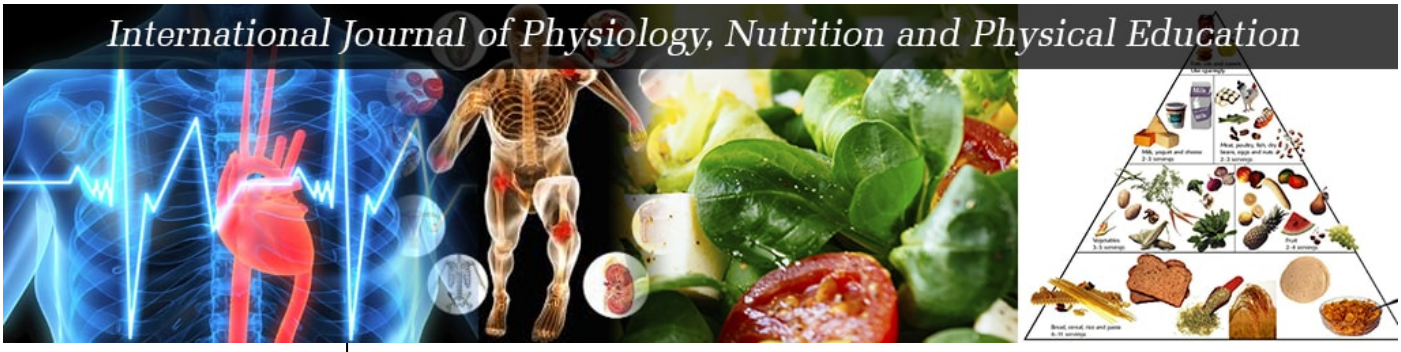

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A pilot study on emotional intelligence & its impact on pre-competitive anxiety: How does it operate in the non-WEIRD Indian sport context?

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Abstract
This pilot study examined the relationship between Emotional Intelligence (EI) and precompetitive anxiety in a multiple sport sample in a non-WEIRD (Western, Educated, Industrialized, Rich and Democratic) Indian context. We hypothesized a divergent operation of variables in the Indian context, which is a contrast to Eurocentric populations represented in literature. Participants were 150 full time Indian athletes across five sports (tennis, badminton, cricket, football, basketball). Competitive state anxiety inventory-2 (CSAI-2) and Emotional intelligence scale (EIS) were administered pre sport competition using a quantitative, cross-sectional research design. Spearman's correlation analysis indicates a significant negative correlation between EI and competitive anxiety. Mann-Whitney *U* test revealed no statistical differences between genders in both variables across sport types. Self-confidence had a positive relationship with dimensions of EI. This pilot study holds significance in providing basic understanding of the operational dynamics of the variables in an Indian context where no prior literature exists. Results diverge from established patterns in WEIRD, Eurocentric countries. Results are inferred and their contribution of cross-cultural insight adding value to the predominantly Eurocentric literature of sport psychology is discussed using the lends of cultural sport psychology.

Keywords: Emotional intelligence, precompetitive anxiety, cross cultural, non-WEIRD context, athletes, India

Introduction
"That's the beauty of sport. Sometimes you laugh. Sometimes you cry."

- Guardiola

Emotions and their centrality in sport has been a consistent topic of research over the last three decades (McCarthy, 2011; Laborde *et al*., 2016) [55, 9] since emotions actively guide human behavior and the decision-making process. Often called "emotional animals" (Turner, 2007, p.1) [87], human emotion forms an evaluative basis for future judgments and connections with others (Stephan, 2009). In the emotionally charged, highly evaluative environments of competitive sport (Galli & Gonzalez, 2015) [18] emotional self-regulation impacts on resilience and grit (Gupta & Sudhesh, 2019) [20]. In such sport environments, emotions in sport and from 'non-sport' areas impacts functioning and performance (Friesen *et al*., 2013) [17]. As such, emotional regulation during training and competition is a key area of research (Ruiz *et al*., 2020) [7]. For example, emotionally volatile ruminations and negative self-statements lead to decreased attention and concentration which inhibits optimal performance (Lazarus, 2000) [48]. The interpersonal perceptions of emotions are linked to subjective personal emotional experiences (Hackfort, 1996) [22]. This shows relevance in team sport where emotional awareness, understanding of team members contributes to team cohesion, congruence, and performance (Abhraham, 1999) [1]. One such factor in emotional regulation is Emotional Intelligence (EI).

EI is the capacity to recognize emotions of others and regulate one's own emotions across diverse situations and relationships (Goleman, 1998; Mayer *et al*., 2000) [19, 54]. Dimensions of EI include self-awareness, self-regulation, motivation, social awareness, and social skills

manifesting in diverse sport and non-sport situations (Goleman, 1998) [19]. There is a growing body of research suggesting that EI has a crucial role in sport performance (Laborde *et al*., 2014) [43]. Higher EI enhances introspective abilities of athletes allowing an internal locus of control and higher accessibility to optimal emotional performance states for greater adaptive behaviours (Lane *et al*., 2009; Lane & Wilson, 2011) [45, 46]. Meta-analytic evidence notes that athletes who score higher on EI psychometrics tend to be more successful and actively employ psychological skills such as self-talk, imagery and goal-setting (Laborde *et al*., 2015) [44]. Lack of EI also affects performance dimensions influenced by various stressors and emotional challenges (Meyer & Fletcher, 2007) [58]. For example, athletes with higher EI can better manage their emotions and have better decision-making in emotionally challenging situations (Kumari, 2016) [41]. This makes EI particularly relevant while dealing with complex phenomena such as anxiety.

Anxiety is commonplace in sport and is intrinsically linked to sport performance (Cheng *et al*., 2009) [10]. Athletes experience different levels of anxiety pre/post/during competition impacting performance (Boroujeni *et al*., 2012, Hatzigeorgiadis *et al*., 2009) [85, 23]. The facilitative or debilitative impact of anxiety is determined by individual and situational factors such as fear of failure (Jones *et al*., 1994, Correia & Rosado, 2018) [36, 12]. Relevant to competition performance is the transitory emotional state of feeling apprehensive, nervous, and high physiological stress responses i.e., state anxiety (Craft *et al*., 2003) [13]. State anxiety is often determined by person-environment interaction (Hanin, 2004; 2007) [24, 29] that occurs when situational demand exceeds the ability to meet them (Lazarus, 1993; Mullen & Hardy, 2000) [49, 62]. In sport performance, state anxiety is featured in pre-competition phases (Martens *et al*., 1990; Mabweazara *et al*., 2014). [53, 52] According to multidimensional anxiety theory (Martens *et al*., 1990) [53] state anxiety comprises of two major dimensions. Cognitive anxiety is the evaluative dimension characterized by thoughts accompanying the phenomenological experience of anxiety (Moran, 2009 for a cognitive perspective) [60]. These cognitions include self-doubt, ruminations, worry, and focus on failure and negative expectations. This combination manifests itself in somatic anxiety i.e., the physical manifestation of anxiety such as elevated heart rate, sweaty palms, shortness of breath, palpitation and other physiological distress reactions (Jarvis, 2006) [35]. The consequent impacts of anxiety and sport performance has been theoretically explained through the catastrophe model of anxiety (Hardy & Fazey, 1988) [31] and the inverted-U hypothesis (Yerkes & Dodgeson, 1908; Landers & Arent, 2001) [89, 42]. The Individual Zones of Optimal Functioning (IZOF) model proposed by Hanin (1978; 1995) [27, 28] has often been used to explore state anxiety in sport, with research suggesting that every individual athlete has different levels of optimal pre-performance arousal (Cohen *et al*., 2006; Robazza *et al*., 2004) [11, 72].

A 'challenge' i.e. facilitative interpretation of precompetitive anxiety has been empirically linked to be the distinguishing factor that sets elite athlete apart (Jones *et al*., 1994; Hanton *et al*., 2005; Lu *et al*., 2010) [36, 26, 50]. Athletes who interpret anxiety in positive light and appraise it to be helpful may increase performance (Jones & Swain, 1995) [38]. Randomized control trial evidence shows that emotional intelligence in coaching high-performance athletes is linked to anxiety (Barlow & Banks, 2014) [6]. Castro-Sánchez *et al*., (2018) [7] outlined an inverse relationship between EI and state anxiety, citing EI to be a skill which aids the control of fundamental anxious feelings in sport. Lu *et al*., (2010) [50] divided participants into low and high EI groups with the low EI group reporting greater levels of pre-competitive anxiety.

There is limited research on the dynamics of the relationship between EI and precompetitive anxiety across sport types investigating a sample of developing athletes. There is limited literature in non-WEIRD contexts and none in India. This gap lends the rationale of this study which investigates the link in a developing athlete sample form India contributing to positive youth development and talent development literature in sport psychology. The philosophical underpinnings of this pilot study are set in the positivist paradigm, within the tenets of cultural sport psychology (Schinke & Hanrahan, 2009) [81]. We strive to emulate Ryba (2017) [75] in (re)considering cultural praxis of theory and evidence. As such, the Indian sample chosen represents a part of the non-WEIRD (Henrich *et al*., 2010) [33] context, which allows a preliminary analysis of how predominantly European theorizations (Lane *et al*., 2014; Meyer & Fletcher, 2007) [47, 58] stand in the face of cross-cultural empirical examination.

Aim

To investigate emotional intelligence (EI) and precompetitive anxiety in Indian athletes from five different sports (tennis, badminton, cricket, football, basketball)

Objectives

- To study the relationship between emotional intelligence (EI) and precompetitive anxiety in Indian athletes
- To study the differences in EI and competitive state anxiety among Indian athletes across sports (tennis, badminton, cricket, football, basketball)
- To study the predictive ability of EI on precompetitive state anxiety among Indian athletes

Hypothesis

H0. There will be no significant relationship between emotional intelligence (EI) and precompetitive anxiety in Indian athletes

H0. There will be no significant differences in EI and competitive state anxiety among Indian athletes across sports (tennis, badminton, cricket, football, basketball)

H0. EI will not predict precompetitive state anxiety among Indian athletes

Method

Research Paradigm

This study was steered by the positivist paradigm, focusing on a singular and identifiable truth and reality (Hausken-Sutter *et al*., 2021) [32]. It uses objectivity to provide answers that are both technical and neutral with the potential to be generalized. The study also follows a deductive approach, focusing on the facts available by employing psychometric tests to gather data.

Emphasis is placed on methodological coherence which is defined as 'congruence between your epistemological and ontological viewpoint, your theoretical position/perspective, the methods you choose, and so on' (Mayan, 2009, p. 13). This study is rooted in ontological realism with a positivist epistemology guiding the quantitative methodology.

Participants

Full-time athletes (*n*= 150) aged 14-26 years (Male= 67.33%;

Female = 32.67%), playing five sports of tennis, badminton, basketball, football, and cricket (n = 30 from each sport) were recruited from parts of India. Athletes are classified as competitive-elite and semi-elite athlete per Swann *et al*., (2015) [85] classification of athlete level (M_{age} =19.86, SD = 2.88). Participants were recruited through first author's contacts and purposive sampling (criteria outlined below), with consent for athlete access from coaches and organizations wherever applicable. Full-time athletes who were training daily and did not use sport psychology support was included. Athletes who were injured were excluded. Intended sample size was achieved, however, the intended equal sex distribution of sample was not achieved in the sample.

Measurements Used

Competitive state anxiety inventory-2 (CSAI-2)

Developed by Martens *et al*., (1990) [53], CSAI-2 is a 37-item self-report measure created specifically for assessing sport-specific state anxiety. Participants respond on a 4-point Likert scale ranging from "not at all" to "very much so". The scale has 3 subscales: measuring cognitive anxiety, somatic anxiety, and self- confidence with 9 questions each. Only item number 14 is reverse scored. Ranging between 9 and 36, scores in both ends indicated low and high anxiety, respectively. Participants were instructed to complete this questionnaire in a precompetitive scenario to identify exactly how they feel. Cronbach alpha value of the scale shows adequate reliability in non-WEIRD Brazilian sample validation (cf. Fernandes *et al*., 2013) [16], lending its rationale for use in the similar cultural context of India.

Emotional intelligence scale (EIS)

Developed and standardized by Singh (2004) [82], is a self-report measure designed to assess emotional intelligence in the Indian context. Based on Goleman's (1998) [19] model of EI competencies, it is formulated on a five-point Likert scale, ranging from "strong disagreement" to "strong agreement." It is a comprehensive questionnaire divided into five dimensions: self-awareness, self-regulation, motivation, social awareness, and social skills. The scores of this questionnaire range between 60 to 300 and between 12 and 60 for each dimension. Cronbach alpha score of the scale shows adequate reliability (α=0.83) (Singh, 2004) [82].

Procedure

Athletes were recruited via the sport contacts of the authors. Purposive sampling was conducted to recruit potential participants post ethical clearance from University board. 30 full-time, competitive-elite and semi-elite athletes (cf. Swann *et al*., 2015) [84] were recruited from each sport (tennis, badminton, cricket, football, basketball). Athletes who were injured or retired were excluded. Each participant was sent a consent form, instruction sheet and two psychometric tests via digital survey forms. The instruction sheet outlined the purpose of the study and instructions indicated that there was no right or wrong responses. Participants were instructed to fill in the psychometrics via self-report before a competitive match to understand the varying levels of anxiety felt before matches regularly and further check its link with Emotional Intelligence.

In accordance with American Psychological Association (2010) [4] code of ethics, the athletes were briefed on the confidentiality of their responses and their right to withdraw from the study. Participants were explicitly told no individual responses would be revealed. Following this, informed consent was obtained. Participants were provided the contact information of researchers in case they wanted clarifications. Demographic data obtained was coded to remove identifying markers to ensure confidentiality and data protection. Data was anonymized and stored securely, only being viewed by the research team. Data analysis plan was set in line with objectives prior to analysis process. Only planned analysis was conducted to ensure objectivity in the research process.

Data Analysis

Data acquired via psychometric tests were scores according to instructions in respective manuals. Data was then screened for missing values and potential outliers. Checks were made for assumptions of normality, linearity, and homogeneity of variance-covariance. Mean scores, descriptive statistics and scale reliability were derived for all measures. Non-parametric inferential statistical analysis was employed. Spearman's correlation was employed to analysis the relationship between EI and competitive state anxiety. Mann-Whitney U test was conducted to inspect gender differences across variables. Kruskal-Wallis H was used to examine differences in EI and competitive state anxiety across athletes from different sport types (tennis, badminton, cricket, football, basketball). EI as independent variable was entered into a linear regression model to determine its predictive ability of competitive state anxiety. Planned multivariate analysis of variance (MANOVA) to examine interaction effects and possible differences by gender and sport on variables could not be executed since assumptions of normality were unmet.

Results

The current pilot study establishes the relationship between EI and competitive state anxiety among professional athletes in India. The section below illustrates the results of the planned statistical analysis. Checks were conducted and assumptions were met. Participant responses to psychometric questionnaires were reliable (α= 0.900)

Table 1: Descriptive statistics of data collected

Variables	N	Mean (SD)	Min	Max	*W*
Cognitive State Anxiety (CSA)	150	22.00 (5.092)	9	36	.993*
Somatic State Anxiety (SSA)	150	19.37 (5.027)	12	33	.958
Self-Confidence (SF)	150	25.17 (5.199)	10	36	.985*
CSAI Total Score (ANXTOT)	150	66.54 (7.830)	48	92	.987*
Emotional Intelligence Self-Awareness (EISA)	150	41.42 (6.670)	12	48	.843
Emotional Intelligence Self-Regulation (EISR)	150	39.17 (5.762)	21	46	.883
Emotional Intelligence Motivation (EIMOT)	150	44.53 (6.855)	13	52	.880
Emotional Intelligence Social Awareness (EISOA)	150	37.51 (6.160)	17	44	.892
Emotional Intelligence Social Skills (EISOCSKILL)	150	40.78 (6.964)	18	48	.890
Emotional Intelligence Total Score (EITOTAL)	150	203.41 (28.583)	82	237	.898

*p> 0.05.

Descriptive statistics was conducted on data collected among dimensions and total scores from measures of emotional intelligence (EI) and competitive state anxiety. Illustrated above, Table 1 presents the results of statistical analysis. There was a high standard deviation of 28.583 in the total score for EI and standard deviation of 7.830 in competitive state anxiety. Shapiro-Wilk test of normality indicates competitive state anxiety was normally distributed whereas EI measure responses were not normally distributed.

Table 2: Relationship between EI and competitive state anxiety

	1	2	3	4	5	6	7	8	9
ANXTOT (1)									
EITOTAL (2)	-.215**								
CSA (3)	.781**	-.327**							
SSA (4)	.768**	-.326**	.698**						
SF (5)	.035	.284**	-.431**	-.463**					
EISA (6)	-.175*	.828**	-.309**	-.366**	.369**				
EISR (7)	-.198*	.882**	-.339**	-.299**	.314**	.723**			
EIMOT (8)	-.268**	.844**	-.352**	-.387**	.275**	.642**	.692**		
EISOA (9)	-.174*	.872**	-.203*	-.204*	.104	.634**	.698**	.707**	
EISOCSKIL (10)	-.169*	.878**	-.266**	-.262**	.252**	.652**	.741**	.652**	.729**

*p< 0.05, **p< 0.01. *Note.* EITOTAL= EI Total Score; ANXTOT= Competitive State Anxiety Total Score; CSA= Cognitive State Anxiety; SSA= Somatic State Anxiety; SF= Self-Confidence; EISA= EI Self-Awareness; EISR= EI Self-Regulation; EISOA= EI Social Awareness; EISOCSKILL= EI Social Skills

Spearman's correlation analysis indicated that all dimensions of EI and competitive state anxiety were negatively correlated. Results outline a statistically significant negative correlation between total score of emotional intelligence and competitive state anxiety (r= -0.251, p< .01). This implied a significant inverse relationship where high EI suggests low competitive state anxiety and vice versa. Null hypothesis stating no relationship between EI and precompetitive anxiety in Indian athletes is rejected.

Table 3: Gender difference in EI and Competitive State Anxiety

Variables	Mean Rank		U	Z
	Male	Female		
ANXTOT	73.03	80.58	2.226	-0.999
EITOTAL	76	74.48	7.376	-0.200

*p< 0.05, *Note.* EITOTAL= EI Total Score; ANXTOT= Competitive State Anxiety Total Score

Table 3 above displays the results of the non-parametric Mann-Whitney *U*-test to check for gender differences in EI and competitive state anxiety. Analysis indicates no significant difference in the levels of EI and competitive state anxiety among male and female athletes. Results of this pilot is preliminary and must be placed in inferred with caution due to the greater number of males in samples (n= 101) than females (n= 49).

Table 4: Sport based difference in EI and Competitive State Anxiety

Variables	Mean Rank					*df*	X^2
	Tennis	Badminton	Cricket	Football	Basketball		
ANXTOT	73.52	90.02	68.27	75.98	69.72	4	4.789
EITOTAL	81.63	77.57	79	74.47	64.83	4	2.688

*p< 0.05, n=30 (Tennis, Badminton, Cricket, Football, Basketball), Note. EITOTAL= EI Total Score; ANXTOT= Competitive State Anxiety Total Score

Kruskal-Wallis H test showed no statistically significant difference in competitive state anxiety based on their sport $\chi2(2) = 4.789$, p = 0.310, with a mean rank score of 73.52 for Tennis, 90.02 for Badminton, 68.27 for Cricket, 75.98 for Football and 69.72 for Basketball. There was no statistically significant difference in EI across sport types either $\chi2(2) = 2.688$, p = 0.611, with a mean rank score of 81.63 for Tennis, 77.57 for Badminton, 79 for Cricket, 74.47 for Football and 64.83 for Basketball. Null hypothesis stating no significant differences in EI and competitive state anxiety among Indian athletes across sports (tennis, badminton, cricket, football, basketball) is accepted.

Table 5: Predicting competitive state anxiety from EI

	Predictor	β	*t*	R^2	ΔR^2	F	D-W
Model							
1	EI	-0.079	-.652*	.083	.076	13.340*	2.156

*p< 0.01, DV = Competitive State Anxiety

Linear regression analysis model indicates that EI inversely predicts competitive state anxiety (β= -0.079, p< 0.01). Results indicate EI to be statistically significant negative predictor of competitive state anxiety explaining 8.3% change in competitive state anxiety (R2 = 0.083, F= 13.340, p<.01). Null hypothesis stating that EI will not predict precompetitive state anxiety among Indian athletes is rejected.

Discussion

This study examined the associations between EI and competitive state anxiety measured pre-competition, comparing the variables across sport types and gender in athletes from a non-WEIRD Indian sample. Results indicate a significant negative relationship between EI and competitive state anxiety, with lower levels of EI linked to higher state anxiety levels and vice versa. This is in line with extant literature which notes a relationship between high anxiety states and low emotional regulation as having negative effects on performance (Pablo *et al*., 2006) [65]. Specifically, there is a negative correlation between somatic state anxiety and all dimensions of emotional intelligence in this sample which is in line with extant research (Lu *et al*., 2010) [50]. Psychophysiology provides an explanatory mechanism for this relationship. EI is shown to have an influence of cortisol levels (Mikolajczak *et al*., 2007) [59] which is a key factor in anxiety levels in individuals (Park *et al*., 2020) [67]. Therefore, athletes with higher EI intelligence have a higher ability to discriminate among emotions and self-regulate allowing positive psychosocial adjustment (Pablo *et al*., 2006) [65] and lower anxiety levels (Lu *et al*., 2010) [50]. Additionally, lower EI often arises from insecure attachment which is linked to higher levels of cognitive anxiety (Han *et al*., 2013) [30].

The theory of challenge and threat states (Jones *et al*., 2009) [39] finds relevance in explaining this relationship. It outlined the emotional consequence linked to challenge and threat states suggesting how negative emotions are *typically* associated with a threat state. For example, there is evidence of a positive relationship between anxiety and threat states (Williams *et al*., 2010) [88]. This is influenced at how facilitative or debilitative the emotional state is perceived to be in line with the model of debilitative and facilitative competitive state anxiety model (Jones, 1995) [38]. Higher EI is linked to higher emotional awareness (Agnoli *et al*., 2019) [3] and would predispose a challenge state which is beneficial for athletic performance (Jones *et al*., 2009) [39]. This is partially supported by the results of the regression analysis which indicates EI to be a statistically significant negative predictor of competitive state anxiety. This pilot indicates that EI has a predictive ability on competitive state anxiety to the level of 8.3% among Indian athletes. This is much lower in comparison to research in other contexts (cf. Love *et al*., 2018; Lu *et al*., 2010; Sánchez *et al*., 2017) [51, 50, 80]. Interventions in a non-WEIRD Indian sample can adopt the theoretical base of challenge and threat states while incorporating EI training programs which have been proven to increase EI levels (Campo *et al*., 2016) [9]. This would have an impact on emotions such as anxiety (Barlow & Banks, 2014) [6]. This is also supported by literature which suggests that EI is linked to psychological skills use among athletes (Lane *et al*., 2009) [45].

This theoretical frame is supported by the significant positive relationship found between self-confidence and dimensions of EI. Athletes who have higher self-confidence and self-efficacy have a high perceived control which predisposes a challenge state (Meijen *et al*., 2020) [56], since confidence is a protective factor against cognitive anxiety (Love *et al*., 2018) [51]. They have a higher sense of confidence and control in their abilities and facilitatively appraise anxiety symptoms (Jones & Hanton, 1996), leading to challenge states and optimal performance. This facilitative metacognitive appraisal also allows for resilient adaptation to adversity anxiety prompted by loss (Gupta & McCarthy, 2021) [21].

Interestingly, there was no gender differences in competitive state anxiety and EI in this non-WEIRD Indian sample. This is finding clashes with results from studies which reported higher levels of state anxiety in female athletes (Dias *et al*., 2014; Hussain, 2014; Perry & Williams, 1998; Merino Fernández *et al*., 2019) [14, 68, 57] and reported higher EI levels in male canoeists (Arribas Galarraga *et al*., 2017) [5]. This can be explained by the potential availability of greater sources of social support available to females which mediated anxiety pre competition (Abrahamsen *et al*., 2008) [2]. Perceived social support is a protective factor against anxiety (Roohafza *et al*., 2014) [73]. The collectivistic nature of Indian society may be an influencing factor reducing anxiety levels in females. Such differences have been noted in constructs such as grit (Datu *et al*., 2017; Kuruveettissery *et al*., 2021) [40]. However, this pilot cannot make a conclusive claim on the cause due to it being beyond the scope of this research and the slightly skewed male-female sample distribution.

There were no significant differences in EI across sport types indicating that the type of sport played has limited impact on the development of EI. Greater influence could be a self-awareness and knowledge of emotions, ability to undertake emotional regulation and general reactions to distressing situations cues at the individual level (Mikolajczak, 2009; Nelis *et al*., 2009) [59, 63]. Similarly, there was no significant differences in competitive state anxiety across sport types. This goes against preliminary suggestions that individual sport athletes (in this study badminton and tennis) experience higher levels of anxiety compared to team sport counterparts since they experience competitive pressure by themselves (Martens *et al*., 1990, Dias *et al*., 2010) [53, 14]. One possible reason for this divergence could be because professional sport is increasingly becoming a team sport with individual athletes having a team of coaches, physiotherapists, sport psychologists, nutritionists, hitting partners and others (Dijkstra *et al*., 2014) [15]. Lower levels of anxiety across sport types could also potentially be due to the competitive motivational climate in the cultural context of the study. For example, ego-oriented and task-oriented climate differs across sport type. Due to the collectivistic cultural context of the sample, the sporting environment could be predisposed to a task-oriented climate across sport types characterized by cooperative learning and mastery (Nicholls, 1984) [64], which leads to lesser anxiety levels (Castro-Sánchez *et al*., 2018) [7].

Practice Implications & Future Research Directions

This pilot study broadens the epistemological spectrum of theory and practice in the field by including cultural praxis (cf. Ryba & Wright, 2005; 2010) [76, 78] in a setting where theory-based sport psychology research is scant. In line with the tenets of cultural sport psychology (Schinke & Hanrahan, 2009) [81], a major implication of this study is to correct the Western ethnocentric bias inherent in mainstream sport psychology literature (Smith, 1999) [83]. The discussion of results in this study reexamines the ontological underpinnings of the divergent results found to understand how culture may have influenced sport in this context which in turn influenced the awareness and operation of EI and competitive state anxiety in the sample. This pilot study provides a foundation upon which in-depth qualitative explorations can take place to formulate a need analysis to build culture-sensitive future interventions (Palinkas, 2014; Thirsk & Clark, 2017) [66, 86].

There are two major applied practice implications to consider. Firstly, the findings highlight the potential of different dynamics of relationships between variables from Eurocentric findings. As such, it reinforces the importance of “mobile

practice" (Ryba *et al*., 2018, p.10) as sport psychology is growing exponentially across the globe (Quartiroli *et al*., 2021) [70] to reduce cultural adjustment challenges (Msengi, 2007) [61]. Practicing culturally appropriate sport psychology to support client's cultural needs proactively and effectively is a necessity (Quartiroli *et al*., 2021) [70]. Second, there is a need for scientist-practitioner based field research from non-WEIRD context to provide the non-Eurocentric evidence base in sport psychology. This is a challenge since there are only a few highly trained practitioners trained in research and applied practice in such contexts. Future research is needed to explain the divergent results of this pilot in terms of the mechanisms and/or processes contributing to them using qualitative designs.

Conclusion

Sport psychology in non-WEIRD country like India is a developing field. This pilot study provides an introductory understanding of EI and competitive state anxiety in this context. Results provide preliminary evidence that these variables operate in a different manner in this cultural context. Findings show that EI and competitive state anxiety have a significant negative relationship, keeping in line with the study, using more culturally appropriate methods to increase EI could help in reducing the level of anxiety felt by athletes. Interventions to help athletes understand their emotions and further regulate them to achieve optimal levels of performance can be a crucial point for furthering their careers as sport psychologists.

References

1. Abraham R. Emotional intelligence in organizations: A conceptualization. Genetic, Social, and General Psychology Monographs. 1999;125(2):209-224.
2. Abrahamsen FE, Roberts GC, Pensgaard AM & Ronglan LT. Perceived ability and social support as mediators of achievement motivation and performance anxiety. Scandinavian Journal of Medicine & Science in Sports, 2008;18(6):810-821. DOI:10.1111/j.1600-0838.2007.00707.x
3. Agnoli S, Mancini G, Andrei F & Trombini E. The Relationship Between Trait Emotional Intelligence, Cognition, and Emotional Awareness: An Interpretative Model. Frontiers in Psychology. 2019, 10. https://doi.org/10.3389/fpsyg.2019.01711
4. American Psychological Association. amendments to the 2002 "Ethical Principles of Psychologists and Code of Conduct." American Psychologist. 2010;65:493.
5. Arribas-Galarraga S, Saies E, Cecchini JA, Arruza JA & Luis-De-Cos I. The relationship between emotional intelligence, self-determined motivation and performance in canoeists. Journal of Human Sport and Exercise. 2017;12(3). https://doi.org/10.14198/jhse.2017.123.07
6. Barlow A & Banks AP. Using emotional intelligence in coaching high-performance athletes: a randomised controlled trial. Coaching: An International Journal of Theory, Research and Practice. 2014;7(2):132-139. https://doi.org/10.1080/17521882.2014.939679
7. Castro-Sánchez M, Zurita-Ortega F, Chacón-Cuberos R, López-Gutiérrez CJ & Zafra-Santos E. Emotional intelligence, motivational climate and levels of anxiety in athletes from different categories of sports: analysis through structural equations. International journal of environmental research and public health. 2018;15(5):894.
8. Castro-Sánchez M, Zurita-Ortega F, Ubago-Jiménez JL, González-Valero G & Chacón-Cuberos R. Relationships between Anxiety, Emotional Intelligence, and Motivational Climate among Adolescent Football Players. Sports. 2019;7(2):34. https://doi.org/10.3390/sports7020034
9. Campo M, Laborde S & Mosley E. Emotional intelligence training in team sports: The influence of a season long intervention program on trait emotional intelligence. Journal of Individual Differences. 2016;37(3):152-158. https://doi.org/10.1027/1614-0001/a000201
10. Cheng WNK, Hardy L & Markland D. Toward a three-dimensional conceptualization of performance anxiety: Rationale and initial measurement development. Psychology of Sport and Exercise. 2009;10(2):271-278. https://doi.org/10.1016/j.psychsport.2008.08.001
11. Cohen AB, Tenenbaum G & English RW. Emotions and Golf Performance. Behavior Modification. 2006;30(3): 259-280. https://doi.org/10.1177/0145445503261174
12. Correia ME, & Rosado A. Fear of failure and anxiety in sport. Análise Psicológica. 2018;36(1):75-86. https://doi.org/10.14417/ap.1193
13. Craft LL, Magyar TM, Becker BJ & Feltz DL. The Relationship between the Competitive State Anxiety Inventory-2 and Sport Performance: A Meta-Analysis. Journal of Sport and Exercise Psychology. 2003;25(1): 44–65. https://doi.org/10.1123/jsep.25.1.44
14. Dias CS, Cruz JFA & Fonseca AM. Coping strategies, multidimensional competitive anxiety and cognitive threat appraisal: Differences across sex, age and type of sport. 2010.
15. Dijkstra HP, Pollock N, Chakraverty R & Alonso JM. Managing the health of the elite athlete: a new integrated performance health management and coaching model. British Journal of Sports Medicine. 2014;48(7):523-531. https://doi.org/10.1136/bjsports-2013-093222
16. Fernandes MG, Nunes SA, Raposo JV, Fernandes HM & Brustad R. The CSAI-2: An Examination of the Instrument's Factorial Validity and Reliability of the Intensity, Direction and Frequency Dimensions with Brazilian Athletes. Journal of Applied Sport Psychology. 2013;25(4):377-391. https://doi.org/10.1080/10413200.2012.744780
17. Friesen AP, Lane AM, Devonport TJ, Sellars CN, Stanley DN & Beedie CJ. Emotion in sport: considering interpersonal regulation strategies. International Review of Sport and Exercise Psychology. 2013;6(1):139-154. https://doi.org/10.1080/1750984x.2012.742921
18. Galli N, & Gonzalez SP. Psychological resilience in sport: A review of the literature and implications for research and practice. International Journal of Sport and Exercise Psychology. 2015;13(3):243-257. https://doi.org/10.1080/1612197x.2014.946947
19. Goleman BD. Working with Emotional Intelligence. Bantam Books. 1998.
20. Gupta S, & Sudhesh NT. Emotional Maturity and Self-Perception Among Adolescents Living With HIV—Need for Life-Skills Intervention. Sage Publications. 2019, 1-18. https://doi.org/10.1177/1054137319885261
21. Gupta S & McCarthy PJ. Sporting Resilience During COVID-19: What Is the Nature of This Adversity and How Are Competitive Elite Athletes Adapting? Frontiers in Psychology. 2021, 12. https://doi.org/10.3389/fpsyg.2021.611261

22. Hackfort D. The Display of Emotions in Elite Athletes. The American Journal of Sports Medicine. 1996;24(6): S80-S84. https://doi.org/10.1177/036354659602406s22
23. Hatzigeorgiadis A, Zourbanos N, Mpoumpaki S & Theodorakis Y. Mechanisms underlying the self-talk–performance relationship: The effects of motivational self-talk on self-confidence and anxiety. Psychology of Sport and Exercise. 2009;10(1):186-192. https://doi.org/10.1016/j.psychsport.2008.07.009
24. Hanin YL. Emotion in sports. In C. D. Spielberger (Ed.). Encyclopedia of Applied Psychology, Oxford, UK: Elsevier Academic Press. 2004, 739-750.
25. Hanin YL. Emotions in sport: Current issues and perspectives. Handbook of sport psychology. 2007;3:31-58
26. Hanton S, Wadey R & Connaughton D. Debilitative interpretations of competitive anxiety: A qualitative examination of elite performers. European Journal of Sport Science. 2005;5(3):123-136. https://doi.org/10.1080/17461390500238499.
27. Hanin Y. A study of anxiety in sports. In W.F. Straub (Ed.), Sport Psychology: An analysis of athlete behavior. Movement Publications: Ithaca, NY. 1978, 236-24
28. Hanin YL. Individual Zones of Optimal Functioning (IZOF) Model: An Idiographic Approach to Performance Anxiety. Sport Psychology: an Analysis of Athlete Behavior. Longmeadow, MA: Movement Publications. 1995, 103-119.
29. Hanin YL. Emotions in sport: Current issues and perspectives. Handbook of sport psychology. 2007;3:31-58.
30. Han DH, Kim SM & Zaichkowsky L. Insecure attachment and anxiety in student athletes. The Journal of Sports Medicine and Physical Fitness. 2013;53(3):274-282.
31. Hardy L, & Fazey J. The inverted-U hypothesis: A catastrophe for sport psychology. University of Wales, Bangor, SHAPE. 1988.
32. Hausken-Sutter SE, Pringle R, Schubring A, Grau S & Barker-Ruchti N. Youth sport injury research: a narrative review and the potential of interdisciplinarity. BMJ Open Sport & Exercise Medicine. 2021;7(1):e000933. https://doi.org/10.1136/bmjsem-2020-000933
33. Henrich J, Heine SJ & Norenzayan A. The weirdest people in the world?. Behavioral and brain sciences. 2010;33(2-3):61-83.
34. Hussain F, ullah Khan S & Ali R. Analysis of sports pre-competitive anxiety in university level male and female athletes. The spark a hec recognized Journal. 2015;1:93-112.
35. Jarvis M. Sport Psychology: A Student's Handbook. Taylor & Francis. 2006.
36. Jones G, Hanton S & Swain A. Intensity and interpretation of anxiety symptoms in elite and non-elite sports performers. Personality and Individual Differences. 1994;17(5):657-663. https://doi.org/10.1016/0191-8869(94)90138-4
37. Jones G. More than just a game: Research developments and issues in competitive anxiety in sport. British Journal of Psychology. 1995;86(4): 449-478. https://doi.org/10.1111/j.2044-8295.1995.tb02565.x
38. Jones G & Swain A. Predispositions to Experience Debilitative and Facilitative Anxiety in Elite and Nonelite Performers. The Sport Psychologist. 1995);9(2):201-211. https://doi.org/10.1123/tsp.9.2.201
39. Jones M, Meijen C, McCarthy PJ & Sheffield D. A Theory of Challenge and Threat States in Athletes. International Review of Sport and Exercise Psychology. 2009;2(2):161-180. https://doi.org/10.1080/17509840902829331
40. Kuruveettissery S, Gupta S & Rajan SK. Development and psychometric validation of the three dimensional grit scale. Current Psychology. 2021, 1-10.
41. Kumari, S. Emotional intelligence (EI) and sport science: A systematic study of need, importance and application of emotional intelligence in athletics. International journal of advanced research. 2016;4(1):531-540.
42. Landers DM, Arent SM & Lutz RS. Affect and Cognitive Performance in High School Wrestlers Undergoing Rapid Weight Loss. Journal of Sport and Exercise Psychology. 2001;23(4):307-316. https://doi.org/10.1123/jsep.23.4.307
43. Laborde S, Lautenbach F, Allen MS, Herbert C & Achtzehn S. The role of trait emotional intelligence in emotion regulation and performance under pressure. Personality and Individual Differences. 2014;57:43-47. https://doi.org/10.1016/j.paid.2013.09.013
44. Laborde S, Campo M, Weckemann S & Colombus A. Emotional intelligence training: Implications for performance and health. Advances in psychology research. 2015;101:75-92.
45. Lane AM, Thelwell RC, Lowther J & Devonport TJ. Emotional intelligence and psychological skills use among athletes. Social Behavior and Personality: An International Journal. 2009;37(2):195-201. https://doi.org/10.2224/sbp.2009.37.2.195
46. Lane AM & Wilson M. Emotions and trait emotional intelligence among ultra-endurance runners. Journal of Science and Medicine in Sport. 2011;14(4):358-362. https://doi.org/10.1016/j.jsams.2011.03.001
47. Lane AM, Godfrey RJ, Loosemore M & Whyte GP. (Eds.). Case studies in sport science and medicine. Andrew M. Lane, Richard J. Godfrey, Mke Loosemore & Gregory P. Whyte. 2014.
48. Lazarus RS. How Emotions Influence Performance in Competitive Sports. The Sport Psychologist. 2000;14(3): 229-252. https://doi.org/10.1123/tsp.14.3.229
49. Lazarus RS. From psychological stress to the emotions: A history of changing outlooks. Annual review of psychology. 1993;44(1):1-22.
50. Lu FJH, Li GSF, Hsu EYW & Williams L. Relationship between Athletes' Emotional Intelligence and Precompetitive Anxiety. Perceptual and Motor Skills. 2010;110(1):323-338. https://doi.org/10.2466/pms.110.1.323-338
51. Love S, Kannis-Dymand L & Lovell GP. Metacognitions in triathletes: associations with attention, state anxiety, and relative performance. Journal of Applied Sport Psychology. 2018;30(4):421-436.
52. Mabweazara SZ, Andrews BS & Leach LL. Changes in state anxiety prior to competition and exercise psychology. African Journal for Physical Health Education, Recreation and Dance. 2014;20(21):492-499.
53. Martens R, Vealey R & Burton D. Competitive anxiety in sport. Champaign, IL: Human Kinetics. 1990;28(01): 28-0355.
54. Mayer JD, Salovey P & Caruso D. Models of emotional intelligence. In R. J. Sternberg (Ed.), Handbook of Intelligence. 2000, 396-420. Cambridge University Press. https://doi.org/10.1017/CBO9780511807947.019

55. McCarthy PJ. Positive emotion in sport performance: current status and future directions. International Review of Sport and Exercise Psychology. 2011;4(1):50-69. https://doi.org/10.1080/1750984x.2011.560955
56. Meijen C, Turner M, Jones MV, Sheffield D & McCarthy P. A Theory of Challenge and Threat States in Athletes: A Revised Conceptualization. Frontiers in Psychology. 2020;11:126. https://doi.org/10.3389/fpsyg.2020.00126
57. Merino Fernández M, Dal Bello F, Brabec Mota Barreto L, Brito CJ, Miarka B & López Díaz de Durana, A. State-trait anxiety and reduced emotional intelligence in combat sport athletes of different genders and competitive levels. Journal of Physical Education and Sport (JPES). 2019;19:363-368.
58. Meyer BB & Fletcher TB. Emotional Intelligence: A Theoretical Overview and Implications for Research and Professional Practice in Sport Psychology. Journal of Applied Sport Psychology. 2007;19(1):1-15. https://doi.org/10.1080/10413200601102904
59. Mikolajczak M. Going Beyond: The Ability-Trait Debate: The Three-Level Model of Emotional Intelligence. E-Journal of Applied Psychology. 2009;5(2):25-31. https://doi.org/10.7790/ejap.v5i2.175
60. Moran A. Cognitive psychology in sport: Progress and prospects. Psychology of Sport and Exercise. 2009;10(4): 420-426. https://doi.org/10.1016/j.psychsport.2009.02.010
61. Msengi IG. Sources of stress and its impact on health behaviors and academic performance of international students at a comprehensive Midwestern University. International Journal of Global Health and Health Disparities. 2007;5(1):55-69.
62. Mullen R & Hardy L. State anxiety and motor performance: Testing the conscious processing hypothesis. Journal of Sports Sciences. 2000;18(10):785-799.
63. Nelis D, Quoidbach J, Mikolajczak M & Hansenne M. Increasing emotional intelligence: (How) is it possible? Personality and Individual Differences. 2009;47(1):36-41. https://doi.org/10.1016/j.paid.2009.01.046
64. Nicholls JG. Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. Psychological Review. 1984;91(3):328-346. https://doi.org/10.1037/0033-295x.91.3.328
65. Pablo FB, Ruben A, Natalio E & Pizarro DA. The role of emotional intelligence in anxiety and depression among adolescents. Individual Differences Research. 2006;4(1): 16-27.
66. Palinkas LA. Qualitative and Mixed Methods in Mental Health Services and Implementation Research. Journal of Clinical Child & Adolescent Psychology. 2014;43(6):851-861. https://doi.org/10.1080/15374416.2014.910791
67. Park SH, Park IH, Lim ST & Lee E. Changes in Psychological Anxiety and Physiological Stress Hormones in Korea National Shooters. Brain Sciences. 2020;10(12):926. https://doi.org/10.3390/brainsci10120926
68. Perry JD & Williams JM. Relationship of intensity and direction of competitive trait anxiety to skill level and gender in tennis. The Sport Psychologist. 1998;12(2):169-179. doi:10.1123/ tsp.12.2.169
69. Quartiroli A & Wagstaff CR. Psychology and Psychologists in Search of an Identity: What and who are we, and Why Does It Matter? Journal of Sport Psychology in Action. 2020;11(4):254-265.
70. Quartiroli A, Vosloo J, Anderson SN, Ditter J, & Keeley M. The transnational experience of sport psychology practitioners from training to practice. Psychology of Sport and Exercise. 2021;54:101903. https://doi.org/10.1016/j.psychsport.2021.101903
71. Quartiroli A, Vosloo J, Schinke RJ, Anderson SN, Fisher LA & Giffin CE. Sport psychology professionals' perceptions of the roadblocks to cultural sport psychology. Sport, Exercise, and Performance Psychology. 2021. https://psycnet.apa.org/doi/10.1037/spy0000256
72. Robazza C, Pellizzari M & Hanin Y. Emotion self-regulation and athletic performance: An application of the IZOF model. Psychology of Sport and Exercise. 2004;5(4):379-404.
73. Roohafza HR, Afshar H, Keshteli AH, Mohammadi N, Feizi A, Taslimi M, *et al*. What's the role of perceived social support and coping styles in depression and anxiety?. Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences. 2014;19(10):944.
74. Ruiz MC & Robazza C. Emotion regulation. In Hackfort, D & Schinke RJ (Eds.). (2020). The Routledge International Encyclopedia of Sport and Exercise Psychology: Volume 1: Theoretical and Methodological Concepts. Routledge. 2020 https://www.researchgate.net/publication/341606679_Emotion_regulation
75. Ryba TV. Cultural sport psychology: a critical review of empirical advances. Current Opinion in Psychology. 2017;16:123-127. https://doi.org/10.1016/j.copsyc.2017.05.003
76. Ryba TV & Wright HK. From mental game to cultural praxis: A cultural studies model's implications for the future of sport psychology. Quest. 2005;57:92-212.
77. Ryba TV, Schinke R.J, Stambulova NB & Elbe AM. ISSP position stand: Transnationalism, mobility, and acculturation in and through sport. International Journal of Sport and Exercise Psychology. 2017;16(5):520-534. https://doi.org/10.1080/1612197x.2017.1280836
78. Ryba TV & Wright HK. Sport psychology and the cultural turn: Notes toward cultural praxis. The cultural turn in sport psychology. 2010;3-28.
79. De Francisco C, Arce C, EI & Del Pilar Vílchez M. The mediating role of sport self-motivation between basic psychological needs satisfaction and athlete engagement. Psicothema. 2018;30(4).
80. Sánchez Muñoz A, Rodríguez Cayetano A, Castaño Calle R, Fuentes Blanco JM, De Mena Ramos JM, Avilés Vicente R, *et al*. Female Spanish athletes face pre-competition anxiety at the highest levels of competition. Revista de psicología del deporte. 2017;26(4):0039-44.
81. Schinke RJ & Hanrahan SJ (Eds.). Cultural sport psychology. Human Kinetics. 2009. https://doi.org/10.5040/9781492595366
82. Singh S. Development of a measure of emotional intelligence. Psychological Studies-University of Calicut. 2004;49:136-141.
83. Smith LT. Research adventures on indigenous land. Decolonizing methodologies. Spielberger, C. D. (1979). Understanding stress and anxiety. Harper & Row. 1999.
84. Swann C, Moran A & Piggott D. Defining elite athletes: Issues in the study of expert performance in sport psychology. Psychology of Sport and Exercise. 2015;16:

3-14. https://doi.org/10.1016/j.psychsport.2014.07.004
85. Boroujeni ST, Mirheydari SBG, Kaviri Z & Shahhosseini S. The survey of relationship and comparison: emotional intelligence, competitive anxiety and mental toughness female super league basketball players. Procedia-Social and Behavioral Sciences. 2012;46:1440-1444.
86. Thirsk LM, Clark AM. Using Qualitative Research for Complex Interventions. International Journal of Qualitative Methods. 2017;16(1):160940691772106. https://doi.org/10.1177/1609406917721068
87. Turner JH. Human Emotions: A Sociological Theory. Routledge. 2007.
88. Williams SE, Cumming J & Balanos GM. The use of imagery to manipulate challenge and threat appraisal states in athletes. Journal of Sport and Exercise Psychology. 2010;32(3):339-358. https://doi.org/10.1123/jsep.32.3.339
89. Yerkes RM & Dodson JD. The relation of strength of stimulus to rapidity of habit-formation. Journal of Comparative Neurology and Psychology. 1908;18(5): 459-482. https://doi.org/10.1002/cne.920180503