SHORT COMMUNICATION

Identification of Precompetitive Anxiety among Professional Footballers: A Cross-Sectional Study in Pakistan's Context

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ABSTRACT

Background: Precompetitive anxiety refers to an indistinct but unrelenting feeling of uneasiness and dread in hours prior to the competition. Precompetitive anxiety has been shown to affect an athlete at various levels including match performance, sporting injuries, rehabilitation of sports injuries, return to activity and risk or re-injury. It has become a common practice to differentiate between the two common forms of anxiety. Therefore, the purpose of current study was to assess precompetitive anxiety in footballers of Pakistan.

Methods: A descriptive cross section survey was conducted on 58 male footballers aged between 18-26 years. The data was collected from Pakistan football federation club and Fame football club. Total 34 footballers were assessed at the Pakistan football federation club and 24 at the Fame football club. The sampling strategy utilized was non-probability convenience sampling. The study was conducted over a period of 6 months from July 2018 to January 2019. Competitive state anxiety inventory was used to assess precompetitive anxiety 1 hour preceding the competition. Data analysis was carried out using Statistical Package for Social Sciences version 21and results were presented in the form of frequency and percentages.

Results: Out of 58 participating footballers, 44.8% (n=26) reported moderate levels of somatic state anxiety, 72.4% (n=42) reported moderate levels of cognitive state anxiety and 48.3% (n=28) reported moderate levels of self-confidence.

Conclusion: The study concluded that moderate to low levels of somatic state anxiety, moderate levels of cognitive state anxiety and moderate to high levels of self-confidence were present in majority of participating footballers.

Keywords: Anxiety; Footballers; Precompetitive state.

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doi.org/10.36283/PJMD9-2/020

INTRODUCTION

Anxiety is described as a psychological condition[1,2] of apprehension, worrying, fretfulness and unease regarding the performance of a certain task. It is a condition of stress that alters the normal homeostatic mechanisms of the body, usually increasing the activity of sympathetic nervous system leading to both physical and cognitive symptoms[3]. Changes in autonomic nervous activity are evident as the variability in heart rate, respiratory rate, aerobic capacity and other physical parameters[4]. Trait anxiety refers to each individual's difference in their tendency to experience symptoms in the face of predictable stress[5]. State anxiety on the other hand reflects the unpleasant stress and emotional stimulation felt when confronted to an exacting situation[6].

Anxiety can manifest in two basic forms, cognitive and somatic. Its cognitive form is characterized by nervousness, irritability and the thought that one lacks the ability to complete a certain task[7, 8]. The somatic component presents as restlessness, palpitations, sweating, racing heart and tense stomach[2]. Elite athletes have reported the presence of syncope in the pre-match states, which were not attributable to any of the heart disorders[9]. The component of self-confidence is considered as a positive predictor and shows temporal variability as the event approaches[2,10]. Emotional intelligence and the aim to achieve perfection during performance of a task is also considered as one of the predictors of anxiety in footballers[11, 12].

Precompetitive anxiety refers to an indistinct but unrelenting feeling of uneasiness and dread in hours prior to the competition[13]. It is an embodied process that becomes more evident as time to event approaches and is characterized by excessive concerns about one's match performance, self-doubts, negative self-talk as well as somatic manifestations of restlessness, shortness of breath, nausea and at times, pain[14,15]. Several factors play a key role in development of precompetitive anxiety[16], the most important predictors being gender, team ranking, playing position, personality traits, expectations[15], player's performance and consistency in previous matches and previous failures[17].

Precompetitive anxiety has been shown to affect an athlete at various levels including match performance, sporting injuries, rehabilitation of sports injuries, return to activity and risk or re-injury[18]. Multidimensional anxiety theory sums up the effect of anxiety on match performance according to which cognitive state anxiety has shown a negative influence on match performance[19], whereas somatic state anxiety has shown to have a positive influence[20] on match performance up to a point and then declines, which is in accordance to the inverted Yerke's hypothesis[21]. Anxiety is seen as a positive predictor of sports injuries and 66% of studies have indicated a relationship between anxiety and occurrence of injury in athletes[22]. Studies have shown anxiety and stress among the most significant features effecting athletes' rehabilitation process and recovery from injury[23]. Increased levels of precompetitive anxiety particularly the somatic component has been related to successful completion of the task as compared to the counterparts with low somatic symptoms in pre-match state[24]. Several techniques have shown to reduce the effects of competitive anxiety, which include positive self-talk, positive mental imagery, deep breathing and relaxation exercise[25]. The basic aim of current study was to evaluate the precompetitive anxiety among professional footballers of Pakistan.

METHODS

A descriptive variant of cross sectional survey was carried out on 58 male footballers, 1 hour prior to competition. Sample size was calculated by computing the value of μ as 0.014, margin of error as 1% and confidence interval as 99%. The study settings were Pakistan football federation club and Fame football club. Thus, 34 athletes were assessed at Pakistan football federation club and 24 at the Fame football club. The study population was distributed among playing positions and included 14 defenders, 4 goalkeepers, 21 midfielders and 19 forwards. The sampling strategy utilized was non-probability convenience sampling. The study was conducted over a period of 6 months from July 18 until January 19. The study was approved from the Ethical committee of Lahore College of Physical therapy ERC-LCPT/ 473 2019.

Male footballers aging 18-26 years, playing football at all positions, athletes playing professional football and athletes from all ethnic backgrounds were included in the study. Athletic populations playing sports for leisure, suffering from generalized anxiety disorder, any muscular disorders and physical disabilities were excluded from the study. An informed consent was taken in which the athletes were briefed regarding the purposed of the study, a thorough explanation of questionnaire was provided and any queries regarding the study were addressed.

CSAI-2 is used for the assessment of precompetitive anxiety an hour preceding the competition. Scoring was in a range from 9-36 for all 3 components of precompetitive anxiety separately as mild, moderate and severe. The study also analyzed the 3 components of anxiety across the various playing positions since it was seen as one of the factors influencing its intensity in the previous studies. Data was analyzed using SPSS 21. Results were depicted in the form of frequency and percentage.

RESULTS

The results of the study conducted 1 hour prior to competition indicated that out of 58 participating footballers, 13.8% (n=8) reported high somatic anxiety, 44.8% (n=26) reported moderate levels of somatic anxiety and 41.4% (n=24) reported low levels of somatic anxiety (Table 1).

 doi.org/10.36283/PJMD9-2/020

Table 1: Characteristics of players and frequency of precompetitive anxiety.

Variable	Domain	Frequency	Percentage
Mean Age of Players	22.06 ± 1.5 years		
Playing Positions	Goal keeper	4	6.89%
	Defender	14	24.13%
	Midfielder	21	36.20%
	Forward	19	32.75%
Cognitive Anxiety	Low	14	24.1%
	Moderate	42	72.4%
	High	2	3.4%
Somatic Anxiety	Low	24	41.4%
	Moderate	26	44.8%
	High	8	13.8%
Self Confidence	Low	5	8.6%
	Moderate	28	48.3%
	High	25	43.1%

The results for cognitive state anxiety on the other hand indicated that 3.4% (n=2) reported high cognitive anxiety, 72.4% (n=42) reported moderate levels of cognitive anxiety and 24.1% (n=14) reported low levels of cognitive anxiety prior to competition whereas scores for self-confidence indicated 43.1% (n=25) as having high self-confidence, 48.3% (n=28). With moderate levels of self-confidence and 8.6% (n=5) with low levels of self-confidence prior to competition. The mean and standard deviation of cognitive anxiety among different playing positions was 12.48 ± 3.25 for goalkeeper, 11.65±1.65 for defender, 11.16±2.84for midfield, and 10.96±1.46 for forward player with a p value of 0.01. The mean of somatic anxiety was 11.54±2.67 for goalkeeper, 9.83±1.87 for defender, 10.88±3.69 for midfield, 9.95±2.03 for forward player with a p value of 0.04. The mean of somatic anxiety was 7.26±2.89 for goal keeper, 10.27±2.85 for defender8.54±2.55for midfield, 9.28±2.88 for forward player with a p value of 0.06. A statistically significant difference in the domain of cognitive and somatic anxiety was found among different players as shown in Table 2 and Figure 1.

Table 2: Precompetitive anxiety according to playing positions.

Variable	Goal keeper	Defender	Midfield	Forward	p-Value
Cognitive Anxiety	12.48±3.25	11.65±1.65	11.16±2.84	10.96±1.46	0.01
Somatic Anxiety	11.54±2.67	9.83±1.87	10.88±3.69	9.95±2.03	0.04
Self Confidence	7.26±2.89	10.27±2.85	8.54±2.55	9.28±2.88	0.06

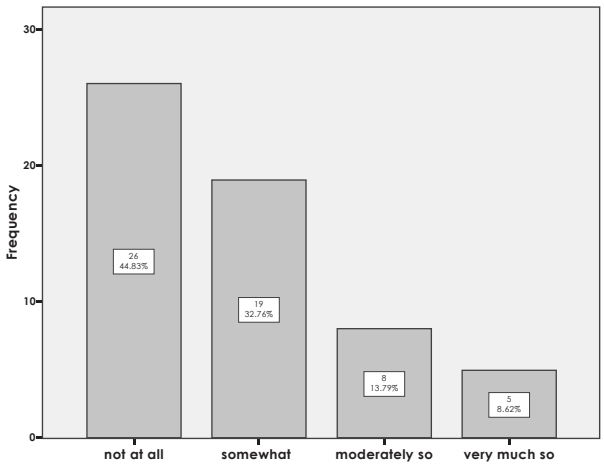

Figure 1: Bar graph showing frequency of players who reported body feeling tight before game.

DISCUSSION

Present study evaluated precompetitive anxiety using the CSAI-2[26], which addresses the three subcomponents of anxiety i.e. cognitive anxiety, somatic anxiety and self-confidence[27]. The findings of the current study suggested that low pre competitive anxiety and high self-confidence was present among professional players of Pakistan. However, goalkeepers reported varying anxiety levels due to the nature of their position in game. Sports activities are usually associated with increased expression of impending apprehension and nervous tension. Precompetitive state is associated with increased manifestation of both the components of anxiety i.e. somatic; with the bodily symptoms like sweating, palpitations, nausea and the sensation of sinking stomach and cognitive with nervous symptoms like negative thoughts about the event ahead, athletic performance, self-doubts and negative self-image. For this reason, this state can influence match performance, injury occurrence and rehabilitation[2].

A study conducted by Li aimed at predicting precompetitive anxiety among athletes. The results showed moderate levels of anxiety in all the sub components except for the somatic state anxiety[28]. These results were in accordance with findings of present study, which concluded that moderate to low somatic state anxiety, moderate cognitive anxiety and moderate to high self-confidence were present in majority of the participants. A study explored the concerns of athletes participating in IJF Grand Prix; the study concluded that there were no significant differences in the subscales of competitive anxiety among different individuals. On the contrary present study indicated differences in subscales of anxiety among athletes at varying playing positions[29].

The results of a study conducted by Sharma found

significant characteristics of competitive state anxiety in both gender athletes were in close association to the results proposed in our study. However, this study measured anxiety as a generalized state rather than measuring the subcomponents of cognitive and somatic anxiety as separate entities, which were measured in the present study[30]. The results of present study are supported by a study previously conducted on the playing positions and competitive anxiety. Both of them concluded that goal keepers have highest levels both cognitive and somatic anxiety when compared with other playing positions.

Another study attempted to examine competitive anxiety responses as the time to event approached and concluded that as the time to event-approached athletes became more self-confident however, the intensity of cognitive and somatic anxiety fluctuated. Pollman also concluded that male athletes were more cognitively anxious than their female counterparts were. These results support the conclusion of present study in that majority of the athletes presented with moderate to high self-confidence when evaluated an hour preceding the competition[14]. Kumar conducted a study to assess precompetitive anxiety in team events and compared them to athletes involved in individual events using the tool SCAT [6, 31]. The study concluded the presence of moderate anxiety among athletes in both the events. Results are consistent with the present study except that it did not address the subcomponents of anxiety[32].

Sports competitive anxiety constitutes an important factor in many aspects or sports and related injuries. Previously studies assessed competitive anxiety as a generalized component; however the progress is evident with the assessment now being carried out in three separate components and their individual influences on an athlete and all aspects of sports performance. Future studies are recommended to explore the effect of precompetitive anxiety on match performance, injury occurrence, playing positions and the effect of positive self-imagery and other maneuvers on the intensity of anxiety. Temporal variability in the precompetitive anxiety should be considered at various intervals in an attempt to understand the correlated factors.

CONCLUSION

The findings of study concluded that moderate to low somatic state anxiety, moderate cognitive anxiety and moderate to high self-confidence is present in majority of the participating athletes. The study also concluded that among the varying playing; goalkeepers have highest levels of cognitive and somatic anxiety and lowest levels of self-confidence.

ACKNOWLEDGEMENTS

I would like to take this opportunity to thank honorable Dean Lahore College of Physical Therapy for his endless support and mentorship. I would also like to thank my supervisor who helped and directed me throughout the process. I would like to pay special thanks to my Research teacher Dr. Samreen, as nothing could have been possible without her.

CONFLICT OF INTEREST

The authors declared no conflict of interest.

ETHICS APPROVAL

The study was approved from the Ethical committee of Lahore College of Physical therapy ERC-LCPT/ 473 2019.

PATIENT CONSENT

Written informed consent was taken from each player involved in the research study.

AUTHORS' CONTRIBUTION

RK did the conception and design. RK and NM did collection and assembly of data. SS and NM conducted analysis and interpretation of the data. Drafting of the article was performed by RK and NM, SS and HMA did SS. Critical revision of the article for important intellectual content. WA performed statistical expertise.

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