Assessment Of Sports Competition Anxiety Among Selected Female Sports Persons (18-23 Years) Of Colleges Affiliated to Mahatma Gandhi University, Kottayam, Kerala

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Abstract: *Anxiety is an important psychological factor that can have both positive and negative effects on a sports person's performance. Sportspeople are subject to great amounts of pressure for victory and the best performance. The unpredictable nature of sports and match outcomes can place individuals in a state of competitive anxiety. This study aimed to assess sports competition anxiety among female athletes from colleges affiliated with Mahatma Gandhi University, Kottayam, Kerala. A total of 400 female sports persons were selected for the study. The tool used in this study was the Sports Competition Anxiety Test (SCAT) questionnaire (Martens, 1977). The study found that the majority of the selected female sports persons had moderate anxiety levels.*

Keywords: Female athletes, Mahatma Gandhi University, Performance, Sports competition anxiety, Sports Competition Anxiety Test.

INTRODUCTION

Several studies have shown that high levels of aspiration often lead to high levels of pressure in sports competitions (Kumar, 2013; Strandell, 2017; Buckley, 2018; Davis *et al*., 2019). A study conducted by Correia and Rosado (2019) concluded that female athletes are more prone to anxiety, which results in low performance (Correia & Rosado, 2019). One of the traits affecting a player's emotional state is anxiety, as it brings stress by imparting feelings of worry, nervousness, and apprehension. These psychological factors can impair a sports person's ability to make quick decisions, trust their instincts and skills, and achieve their full potential, which can determine the performance of an individual and the score of a match.

Anxiety is commonly referred to as 'the tensions and worries due to stress.'There are two types of anxiety: state anxiety and trait anxiety. Trait anxiety is referred to as 'the personality of an individual who responds to situations in the same manner over a period of time' (Singh and Punia, 2018). This indicates that trait anxiety is stable. Therefore, a sports persons' trait anxiety is the anxiety level they experience naturally as an individual and not influenced by other factors. The situation-specific anxiety that occurs just before a situation is called state anxiety. This type of anxiety has a significant role in performance in games and tournaments. Pre-competition anxiety (PCA) is a type of state anxiety (Singh and Punia, 2018) that causes a spike in anxiety for sports persons during the moments leading up to a competition. Spielberger (1966) argued that athletes with a high degree of trait anxiety will have an increased risk of poor performance during a competition as 'athletes with higher trait anxiety levels will also have a high level of state anxiety.'

Competitive anxiety can manifest in two forms: cognitive and somatic. The characteristics of cognitive anxiety are expecting negative outcomes, concentration failure, and fear of failure, whereas somatic anxiety involves physiological symptoms such as sweaty hands, tension, and other physiological changes. (Rathod and Pujari, 2018). Kaplánová (2020) states that concentration disruption occurs due to higher levels of cognitive and somatic anxiety in team sports. Moreover, lower peaking under pressure was achieved by more anxious athletes. They lost their positive and

enthusiastic attitudes, which are responsible for their ability to learn from mistakes and failures.

Every athlete has a certain level of anxiety. The factors that depend on the stress level of an athlete are past experience, coping responses, and genetics. A certain level of stress is beneficial for optimal performance. Optimum levels of stress have the benefits of alertness and activation, which improve performance. Studies have shown that players' performance improves with increasing anxiety. The literature describes this as arousal. (Singer, 1980; Cratty,1973). However, too much stress, after a certain extent, leads to loss of game control of the player, and his or her performance will decrease (Cremades and Wiggins, 2008; Martens et al., 1990). Statler and DuBois explain that both positive (eustress) and negative (distress) stress can cause physiological arousal, but eustress generates positive mental energy, while distress generates anxiety (Statler and DuBois, 2016). Therefore, assessing and managing the anxiety levels of players is an important consideration in preventing a decline in performance. The aim of the present study was to analyze the anxiety levels of selected female sports persons from colleges affiliated to Mahatma Gandhi University, Kottayam, Kerala.

The Sports Competition Anxiety Test (SCAT) is a questionnaire that measures one's ability to control anxiety levels during performance. After completing the SCAT, athletes are given a score that is considered low, medium, or high anxiety. A low score is considered to be less than 17, a medium score is between 17 and 24, and a high score is above 24. Previous studies tested the changing anxiety scores between different sports, and most of the produced scores reflected a medium level of anxiety. However, much of the relevant literature only follows men's sports teams at the district or state levels. There is a need for research on SCAT scores in women's teams and at the college level.

When considering the unique differences among athletes that may impact their anxiety related to sports, one that is apparent is size, specifically, height. Because sports at the college/university level are not as competitive as state or world-level competitions, there is a greater variety in athlete height. Taller, bigger athletes may have a physical advantage over smaller athletes as they may be stronger and therefore more dominant in the match. Therefore, we hypothesized that taller female athletes at Mahatma Gandhi University-affiliated colleges may be better at sports and have less anxiety than shorter athletes who have to work harder to compensate for what they lack in height.

MATERIALS AND METHODS

Sample size

The study was conducted on 400 female sports persons aged 18–23 years. The samples were selected from 12 private colleges affiliated with Mahatma Gandhi University, Kottayam, Kerala.

Instrument used

The Sports Competition Anxiety Test (SCAT) developed by Martens (1977) was used to measure sports-related feelings of anxiety. The test asked athletes to complete 15 questions, which included five spurious items, eight positive items, and two negative items. The questions were all multiple-choice with the following possible responses: (a) Rarely (b) Sometimes (c) Often.

Examples of questions included the following:

- Competing against others is socially enjoyable
- Before I compete, I feel relax
- When I compete, I worry about making mistakes
- Before I compete, I get a queasy feeling I my stomach
- Just before competing, I notice my heart beats faster than usual

Five spurious questions were not scored, while the other questions measured symptoms associated with anxiety. A score of less than 17 indicates low anxiety. Scores between 17 and 24 are denoted as middle anxiety, and scores above 24 are denoted as high anxiety. Athletes were also asked to provide their background information, socioeconomic status, and basic biometric data (height and weight) through a pre-structured questionnaire.

A weighing scale and stadiometer were used to measure the height and weight. These measures were used to calculate the BMI of individuals.

Protocol

Before conducting the study, permission was obtained from the institution heads, coaches, and teachers. Written informed consent was obtained from all participants prior to the study. After the study, the athletes were given a brief explanation of the SCAT**.**

Statistical analysis

Statistical analysis was performed using IBM SPSS (version 23).

RESULTS

Background information on female sportspersons

All 400 responses were included in statistical analyses. 67 percent of the surveyed sports persons were from women-only colleges and 33 percent of the surveyed subjects were from mixed colleges. Of the surveyed subjects, 52 percent were studying humanities courses. The percentage of sports persons studying science and commerce courses were 23.5 and 24.5, respectively.

Sports disciplines of the participants:

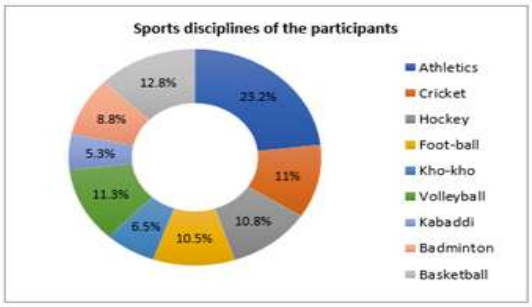

FIG 1**: Sports disciplines of the participants**

Fig. 1 clearly depicts that the sports discipline of the majority of the participants was athletics (23.2 percent). The lowest percentage of participants was from the Kabaddi discipline. (5.3 per cent)

Anthropometric indices of female sports persons

TABLE I : Anthropometric indices of the female sports persons

Parameters	Height(cms)	Weight (kg)	Body mass index (kg/m2)
N	400	400	400
Mean	160.72	53.6	20.638
Std. Deviation	7.629	9.31	2.978
Minimum	142	35	15.17
Maximum	182	95	36.6

As explained by table I, the mean height of the studied group 160.72 ± 7.629, with a minimum of 142 cm and a maximum of 182 cm. The mean weight of the participants was 53.6± 9.310 with a minimum weight of 35 kg and a maximum weight of 95 kg. The mean body mass index of the participants was 20.63± 2.97 with a minimum BMI of 15.17 and a maximum BMI of 36.60.

Mean Sports competition anxiety test (SCAT) scores and categories of SCAT scores of the studied group

TABLE 2: Mean Sports competition anxiety test (SCAT) scores of the studied group

N	400
Mean	20.36
Standard deviation	3.471
variance	12.046
Range	19
Minimum	11
maximum	30

The SCAT score of the studied group was 20.36. The standard deviation was 3.471, and the variance was 12.046. The minimum score was 11, while the maximum score was 30, with a range of 19.

TABLE 3: Categories of Sports competition anxiety test (SCAT) scores of the studied group

SCAT score categories	Frequency	Percentage
score less than 17=low anxiety	48	12
score 17 to 24=middle anxiety	306	76.5
score above 24=high anxiety	46	11.5
Total	400	100

Majority of the participants (76.5 percent) scored between 17 to24 which indicate middle-level anxiety. In the studied group, 12.5% had low anxiety levels (score less than 17). Participants with high anxiety levels (score above 24) accounted for 11.5% of the sample.

Correlation between SCAT scores and height of the studied group

TABLE 4 : Correlation between SCAT scores and height

Variable 1	Variable 2	Pearson correlation (r)	Level of significance	Interpretation
SCAT scores	Height	.135**	0.007	Weak positive correlation

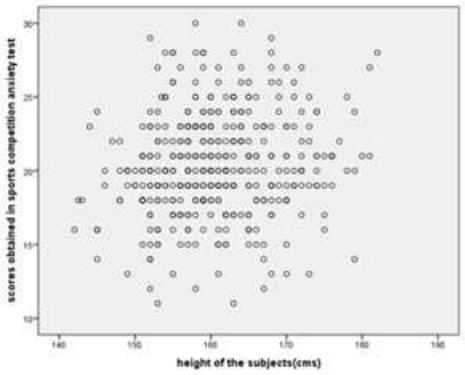

FIG 2**: Correlation between SCAT scores and height of the studied group**

As depicted in table 4 and Fig. 2, the variables height and SCAT scores have a weak positive correlation indicated by r=.135 and level of significance .007

DISCUSSION

Most female athletes in the sample experienced moderate anxiety. Moderate levels of anxiety indicate an average score, aligning with previously indicated measures of Anxiety levels did not change significantly based on height. Height is a critical physical factor for athletes. Taller, stronger athletes may have a physical advantage over shorter athletes; however, this difference in size does not reflect a difference in anxiety. Although we initially hypothesized that taller athletes would have less anxiety over shorter athletes as they may have athletic power or dominance over them, it is possible that shorter athletes have a tactical advantage given their small size. Additionally, even if taller athletes have a complete physical advantage over their peers, there may be stress and anxiety that is rooted in their good performance, specifically the worry of having to maintain their performance and keep their top spot, which can fuel their anxiety. Because every individual athlete has their own relationship to and experience with their sport, the reasons for anxiety are numerous; however, in the context of female athletes at Mahatma Gandhi University affiliated colleges, these unique anxieties average out to be at a similar, medium level.

CONCLUSION

The present study was conducted to assess sports competition anxiety among female sports persons in colleges affiliated with Mahatma Gandhi University. The players were aged 18–23 years. The mean SCAT score of the female athletes was 26.3 ±3.47. Majority of the players were in the middle anxiety level category (SCAT score between 17 and 24), whereas 11.5 percent were found to have high anxiety with a SCAT score higher than 24. Statistical analysis revealed a weak positive correlation between sports completion

anxiety scores and height of the sports persons. Studies conducted by Wilson *et al.*,2002 and Lewinsohn*et al.* (1998) show that female sports persons show more anxiety than males in different sports, partly because of biological factors and societal expectations. This study demonstrates the need for provision of more support to female sports persons to further lower their anxiety levels so that they are low. Being a common issue among sports persons, an understanding that anxiety is normal and can be managed by different relaxation techniques helps female athletes to concentrate more on their games and perform at their best. Relaxation techniques such as positive self-talk, deep breathing, and visualization help reduce anxiety by calming the mind. Sports psychologists can conduct counselling and workshops to help manage anxiety and improve performance. Techniques such as maintaining supportive relationships with teammates, coaches, and family, and setting realistic goals help female sports persons to relive anxiety and concentrate more on sports performance.

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