

## Relationship of State Anxiety with the Premenstrual Syndrome (PMS) Of Female Athletes in Individual Combat Game

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### Abstract

For the Purpose of Study a total of 30 Subjects from the individual combat games, age ranged from 21 -23 were selected from the different sports centers of Punjab. The present investigation's methodology used was a quantitative design connection to link state anxiety with Premenstrual syndrome (PMS). Psychological Variable State Anxiety and Premenstrual syndrome (PMS) was selected as the variables for the study. The copies of the questionnaire were personally distributed to all the subjects and ensure them about giving the correct and valid answers. The researchers assist the subjects in filling the questionnaire wherever they feel any difficulty. The obtained data was analyzed by applying the descriptive and Pearson's product moment correlation statistical technique at level of Significance 0.05.

**Keywords:** State Anxiety, Premenstrual Syndrome (PMS), Female Athletes, Individual Combat Game

### Introduction

Participation in sports is often seen as the preserve of the young and fit. While the years from adolescence to young adulthood may be when bodies are at the peak of physical fitness, for women, this time happens to coincide with the years in which menstruation occurs. (Statham G., 2020), Annabel Croft, a former tennis player, told the BBC that Watson's openness was "brave" and that "women do suffer in silence on this subject. It has always been a taboo subject." Croft considers the impact of the menstrual cycle on sporting performance to be "the last taboo" in sports, yet others downplay its influence. British runner Paula Radcliffe currently holds the world record for the women's marathon and she broke the existing record at the start of her period. In this Spotlight, we investigate to what extent the menstrual cycle can affect sporting performance, as well as examining strategies for militating against its draining effects. The cycle is a series of changes that a woman's body goes through each month preparing her for the possibility of pregnancy. (Foster, R., 2017) An egg is released from the ovary and the lining of the uterus thickens (the lacteal phase). If the egg is not fertilized before the end of the cycle, the lining of the uterus is shed through the vagina. Alongside these changes, women can also be affected by premenstrual syndrome (PMS) manifesting in emotional, behavioral and physical symptoms. (Bertone-Johnson, 2017) The American College of Obstetricians and Gynecologists believe that around 85% of menstruating women experience at least one symptom of PMS as part of their monthly cycle. These symptoms have a lot of potential to disrupt a sportswoman's performance. In addition to the cramping that

Radcliffe referred to, women can experience physical symptoms such as joint and muscle pain, headaches, weight gain and low energy levels. (Tucci, S. A, 2009)

### **Selection of Subjects**

A total of 30 (15 male and 15 female) Subjects from the individual combat games, age ranged from 21 -23 were selected from the different sports centers of Punjab for the purpose of study. The present investigation’s methodology used was a quantitative design connection to link state anxiety with Premenstrual syndrome (PMS).

### **Selection of Variables**

Psychological Variable State Anxiety and Premenstrual syndrome (PMS) was selected as the variables for the study.

### **Data Collection for the Study**

The copies of the questionnaire were personally distributed to all the subjects and ensure them about giving the correct and valid answers. The researchers assist the subjects in filling the questionnaire wherever they feel any difficulty.

### **Result, Analysis and Discussion of Finding**

The obtained data was analyzed by applying the descriptive and Pearson’s product moment correlation statistical technique at level of Significance 0.05.

**Table 13**  
**Descriptive Statistics of State Anxiety with the Premenstrual Syndrome (PMS) of female athletes in Individual Combat Game**

	Mean	Std. Deviation	N
State Anxiety	16.34	2.17	
PMS	7.87	1.57	30

The above table evident the descriptive statistics of State Anxiety with the Premenstrual Syndrome (PMS) of female athletes in Individual Combat Game, as the mean  $\pm$  standard deviation are  $16.34 \pm 2.17$  and  $7.87 \pm 1.57$  respectively. The total number of Subjects in Individual Combat Game is ( $N_1 = 30$ ) respectively.

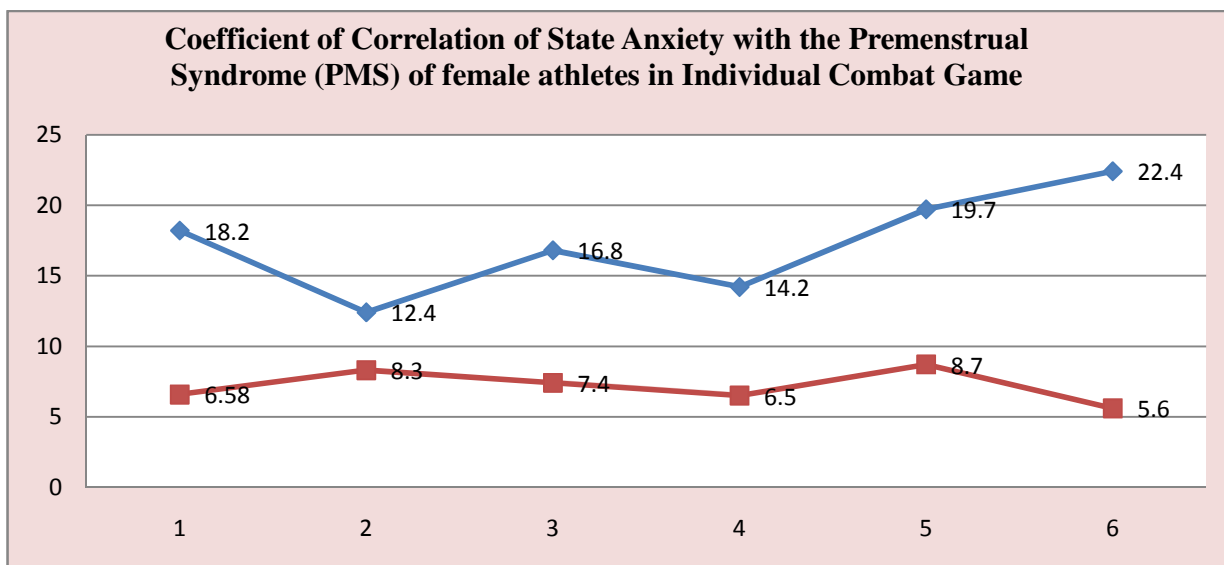
**Table 2**  
**Coefficient of Correlation of State Anxiety with the Premenstrual Syndrome (PMS) of female athletes in Individual Combat Game**

		State Anxiety	PMS
State Anxiety	Pearson Correlation	1	.937
	Sig. (2-tailed)		.013
	N	30	30

Table - 2 indicates the coefficient correlation between State Anxiety and Premenstrual Syndrome (PMS) of female athletes in Individual Combat Game.

However Table exhibited that a significant correlation is found, as the p- value is 0.013 which is less than 0.05 and the obtained Coefficient Correlation value is 0.937 at level of significance 0.05.

Above statistical findings clearly concludes a positive correlation (0.937) between the State anxiety and Premenstrual Syndrome (PMS) in female athletes of Individual Combat Game.



**Fig. No 01**  
**Graphical Representation of Coefficient of Correlation of State Anxiety with the Premenstrual Syndrome (PMS) of female athletes in Individual Combat Game**

**Discussion of Finding**

For the Purpose of Study a total of 30 Subjects from the individual combat games, age ranged from 21 -23 were selected from the different sports centers of Punjab for the purpose of study. The present investigation’s methodology used was a quantitative design connection to link state anxiety with Premenstrual syndrome (PMS). Psychological Variable State Anxiety and Premenstrual syndrome (PMS) was selected as the variables for the study. The copies of the questionnaire were personally distributed to all the subjects and ensure them about giving the correct and valid answers. The researchers assist the subjects in filling the questionnaire wherever they feel any difficulty. The obtained data was analyzed by applying the descriptive and Pearson’s product moment correlation statistical technique at level of Significance 0.05. This difference may occurred due to the reason that Exercise physiologist Jason Karp, PhD, believes that fluctuating levels of the hormones progesterone and estrogen lead to physiological changes in the body during menstruation and that these changes are exacerbated by exercise – particularly if it is intense. Changes to the body during the luteal phase of the menstrual cycle also include increases in breathing and body temperature. “A higher

body temperature during the luteal phase makes it harder to run in the heat, because you don't begin sweating to dissipate heat until you have reached a higher body temperature," Karp explains. (Astaniar, C, 2021).

Increased breathing during the luteal phase also means that less oxygen is available for the muscles involved in exercise, he adds, as more oxygen is required by the muscles responsible for breathing. In 2011, however, the *New York Times* ran an article on the menstrual cycle and athletic performance, citing a series of studies examining female rowers as proof that women should not be concerned with where they are in their cycle when it comes to sporting performance.

The researchers concluded that "normally menstruating female rowers and female rowers taking [oral contraceptive] pills should not be concerned about the timing of their menstrual cycle with regard to optimized sport-specific endurance performance."

Although the studies examined the performance of both competitive athletes and women that rowed for fun, their results are severely limited by the number of participants that were studied.

These studies are indicative of a lack of quality research in this area, meaning that experts are unable to speak with certainty about the full impact of menstruation on sport.

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