



Academic Sports Scholars

EFFECT OF MENSTRUAL CYCLE ON BALL CONTROLLING ABILITY OF SOCCER PLAYERS

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ABSTRACT

The present study was conducted to find out the effect of menstrual cycle on ball controlling ability of soccer players. To conduct the study, 50 female soccer players (Ave. age 24.22 yrs) who took part in inter-university/national female soccer tournaments were selected as sample. Warner's soccer skill test (1950) was used to assess ball controlling ability of selected subjects. To assess performance of female soccer players on the basis of their menstrual cycle, the data was collected before, during and after the menstruation period. Results reveal that ball controlling ability of soccer players was significantly inferior during menstruation period as compared to before and after the completion of menstruation periods. It was concluded that ball controlling ability of female soccer players is affected by their menstrual cycle.

KEYWORDS :Menstruation cycle, soccer, dribbling skills.

INTRODUCTION :

Effect of menstrual cycle on athletic performance is an issue which has generated quite a lot of debate. The studies in this regard have shown that menstrual cycle affect physical, physiological, psychological and biological functioning of women taking part in competitive sports but



the results in this regard are not consistent. Sports scientist also opined that the sports performance during menstruation depends on other factors also.

Women's hormone levels do fluctuate during menstruation, and because of these fluctuations their autonomic nervous system and metabolic functions also gets affected. Therefore it is possible that due to physiological changes athletic performance may also be compromised.

Effect of menstruation on sports performance has been studied by many researchers, viz., Brooks-Gunn, Gargiulo and Warren (1986)¹, Quadagno, Faquin, Lim, Kuminka, & Moffet (1991)², Wojtys et al. (1998)³, Tasmektepligil et al. (2010)⁴, Tasgin (2011)⁵. Some athletes have reported that the menstrual cycle has impaired performance while others have reported that it has enhanced performance. Further studies suggest that during different phases of the menstrual cycle there have been advantages and disadvantages taking place in performance.

Like any other sport, females also take part in competitive soccer which demands highest level of physiological, psychological and skill related ability. In order to perform certain set of skill in soccer, components of motor and physical fitness are essential. So far this aspect i.e. effect of menstrual cycle on ball controlling ability has not been explored as is evident while scanning the research literature. To fill this void, the present study was planned to find out the effect of menstrual cycle on ball controlling ability of national soccer players.

OBJECTIVES

The objective of the present study is to find out the effect of menstrual cycle on ball controlling ability of female soccer players.

HYPOTHESIS

Ball controlling ability of female soccer players will vary significantly before, during and after menstruation period.

METHODOLOGY :-

The following methodological steps were taken in order to conduct the present study.

Sample :-

To conduct the study, 50 female soccer players (Ave. age 24.22 yrs) who took part in inter-university/national female soccer tournaments were selected as sample. Purposive sampling method was used for selection of subjects. Only those subjects with normal menstrual cycle were considered for selection in the present study.

Tools:

Warner's soccer skill test (1950) was used to assess ball controlling ability (dribbling skills) of selected female soccer players. Three trials were given to each subject and the best of three was recorded to the nearest 1/10th of a second as a score. Lower the timing, better is the ball controlling ability is the direction of scoring.

Procedure:

50 national female soccer players with regular menstrual cycle were identified and selected for the present study. The administration of Warner's Soccer Skill Test item "Dribbling the ball" was done thrice i.e. before menstruation, during menstruation and after the menstruation period is over. The scores related with test item were noted. To compare performance of female soccer players before, during and after their menstruation period was over on Warner's Soccer Skill Test Item i.e. "Dribbling the ball", paired sample 't' test was used. The results are presented in table no. 1.

ANALYSIS AND INTERPRETATION OF DATA

Table 1
Performance of Female Soccer Players on “Dribbling the Ball” Test Item of Warner’s Soccer Skill Test in Different Stages of their Menstrual Cycle

Stages of Menstrual Cycle	N	Mean	S.D.	
Before Menstruation (a)	50	8.93	1.34	t(ab)=5.68**
During Menstruation (b)	50	9.37	1.36	t(ac)=4.00**
After Menstruation (c)	50	8.54	1.03	t(bc) = 7.33**

** Significant at .01 level

A perusal of table 1 shows that ball controlling ability of female soccer players was significantly better after the completion of menstruation period (M=8.54) as compared to before (M=8.93) and during menstruation period (M=9.37). The paired t values of 5.68, 4.00 and 7.33 clearly justify the fact that ball controlling ability of female soccer was at best after menstruation period followed by before the start of menstruation period and lastly during menstruation at .01 level of statistical significance.

RESULT AND DISCUSSION

Results of the present study showed the significant impact of menstrual cycle on ball controlling ability of female soccer players. The female sex steroid hormones estrogen and progesterone have potential effects on exercise capacity and performance through numerous mechanisms. Brooks-Gunn, Gargiulo and Warren (1986) have also reported significant changes in the swimmers performance during certain phases of the menstrual cycle. Hence the results are consistent with the previous findings although with some contradictions.

CONCLUSION

On the basis of results, it may be concluded that menstrual cycle is an important marker as far as ball controlling ability of female soccer players is concerned.

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