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Differences between menstrual cycle phases on selected motor fitness components among college women kho-kho players

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Abstract
The purpose of the study was to compare the selected motor fitness components between the different menstrual cycle phases among college women Kho-Kho players. To achieve this purpose of the study, twenty four women Kho-Kho players were selected. The age of the subjects were ranged between 18 to 24 years. The following motor fitness components namely speed and agility were selected as criterion variables. The subjects were tested on selected motor fitness components namely speed and agility on two different menstrual phases namely menstrual phase and proliferative phase by using 50 mts run and shuttle run respectively. The collected data were analyzed statistically through Correlated 't' ratio to find out the significant difference, if any between different menstrual cycle phases among college women Kho-Kho players on selected criterion variables. The. 05 level of confidence was fixed to test the level of significance which was considered as an appropriate. The results of the study showed that there was a significant difference exist between different menstrual cycle phases among college women Kho-Kho players on selected criterion variables.

Keywords: Different menstrual cycle phases, college women kho-kho players, correlated 't' ratio, motor fitness components

Introduction
The menstrual cycle is complex and is controlled by many different glands and the hormones that these glands produce. A brain structure called the hypothalamus causes the nearby pituitary gland to produce certain chemicals, which prompt the ovaries to produce the sex hormones oestrogen and progesterone. The average length of the menstrual cycle is 28 days, but this can vary between women and from one cycle to the next. The length of the menstrual cycle is calculated from the first day of the period to the day before the next period starts. Girls get their first period (menarche), on average, between the ages of 11 and 14 years. By this stage, other sexual characteristics have usually developed, such as pubic hair and budding breasts. The menstrual cycle is a biofeedback system, which means each structure and gland is affected by the activity of the others.

Methodology
The purpose of the study was to compare the selected motor fitness components between the different menstrual cycle phases among college women Kho-Kho players. To achieve this purpose of the study, twenty four women Kho-Kho players were selected. The age of the subjects were ranged between 18 to 24 years. The following motor fitness components namely speed and agility were selected as criterion variables. The subjects were tested on selected motor fitness components namely speed and agility on two different menstrual phases namely menstrual phase and proliferative phase by using
50 mts run and shuttle run respectively. The collected data were analyzed statistically through Correlated 't' ratio to find out the significant difference, if any between different menstrual cycle phases among college women Kho-Kho players on selected criterion variables. The. 05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

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Analysis of the Data

The mean, standard deviation and 't' ratio values on selected criterion variables between different menstrual cycle phases among college women Kho-Kho players were analysed and presented in Table I.

Table 1: The Mean, Standard Deviation and 'T' Ratio Values on Selected Criterion Variables between Different Menstrual Cycle Phases among College Women Kho-Kho Players

Variables	Groups	Mean	Standard Deviation	't' ratio value
Speed	Menstrual Phase	7.69	0.11	2.64*
	Proliferative Phase	7.82	0.13	
Agility	Menstrual Phase	8.15	0.03	3.65*
	Proliferative Phase	8.24	0.08	

* Significant at .05 level of confidence
(The table values required for significance at .05 level of confidence with df 22 was 2.07).

The table I showed that the mean values on speed for different menstrual cycle phases namely menstrual phase and proliferative phase were 7.69 and 7.82 respectively of college women Kho-Kho players. The obtained 't' ratio value on speed 2.64 which was greater than the table value required for significance with df 22 was 2.07.

The mean values on agility for different menstrual cycle phases namely menstrual phase and proliferative phase were 8.15 and 8.24 respectively of college women Kho-Kho players. The obtained 't' ratio value on agility 3.65 which was greater than the table value required for significance with df 22 was 2.07.

The results of the study showed that there was a significant difference between for different menstrual cycle phases namely menstrual phase and proliferative phase among college women Kho-Kho players on speed and agility.

Results

1. The results of the study showed that there was a significant difference between for different menstrual cycle phases namely menstrual phase and proliferative phase among college women Kho-Kho players on speed.
2. The results of the study showed that there was a significant difference between for different menstrual cycle phases namely menstrual phase and proliferative phase among college women Kho-Kho players on agility.

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