

Decreasing Physical Condition and Performance of Swimming Athletes

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Abstract: At present are to know how far the decrease in the physical condition and performance of the swimming athletes' in their menstruation cycle. The participants in this study were 12 female athletes'. The results of this research the decline rate in the athletes' physical condition in the pre-menstruation phase is 30%, in the menstruation phase is 33%, and post-menstruation phase is 33% and In addition, the decline in performance in the pre-menstruation phase is 29%, in the menstruation phase is 34%, and post-menstruation phase is 33%. Conclusion of this study is the menstruation cycle decreases affect physical condition and performance.

1 INTRODUCTION

Swimming is a sport that requires excellent physical performance and ability. Achievement of peak performance on the sport of swimming required a long, regular, focused and continuous training process. Begin from athlete coaching through regular, focused, planned and emphasizing on exercises on physical, technical, tactical, and mental aspects. In general there are many trainers and athletes who think that high achievement can be achieved by practicing continuously and putting forward the physical aspects, techniques and tactics alone. But in fact physiological factors also affect the achievement of such achievements, such as the menstrual cycle. The menstrual cycle is a monthly cycle in a woman that occurs each month. This cycle is a series of events that complexly affect each other and occur simultaneously. "The term *menstrual* (men'et-roo-al) cycle technically refers to the cyclic changes that occur in sexually mature, non-pregnant females and culminate in menses" (Seeley, RR, Stephens, DR, and Tate, P. 2003; Nillni IY et al 2015). The term menstrual cycle technically refers to cyclic changes that occur in sexual maturity, non-pregnant women and leads to menstruation. "This is a series of events, occurring regularly in females every 26 to 30 days throughout the child bearing period of about 36 years" (Wilson, W. J. K. 1990). Periodic menstrual cycle occurs for 26 to 30 days. Before menstruation there is a syndrome called Premenstruation Syndrome

(PMS). Premenstruation Syndrome is a collection of symptoms due to hormonal changes associated with the cycle when ovulation is the release of ovaries from the ovaries and menstruation. The syndrome will disappear at the start of menstruation until several days after the completion of menstruation. 'Premenstrual Syndrome (PMS) is a set of persistent and uncomfortable emotional and physical symptoms that negatively affect the behavior of women during their premenstrual period. Premenstrual symptoms may include depression, anxiety, irritability, confusion, explosive anger, isolation, breast pain, abdominal discomfort, edema, and others. 'PS is a set of uncomfortable emotional symptoms and negative physical symptoms that affect female behavior during their premenstrual period. The symptoms are such as depression, anxiety, irritability, confusion, exploding anger, isolation, breast tenderness, abdominal discomfort, edema, and others (Gaion, A.P. and Vieira, F.L. 2011).

Problems arising from this menstrual cycle is very disturbing the appearance of an athlete during the game. And the resulting symptoms affect the physical condition of athletes such as pain disorders in the breast and abdominal area. In addition, the psychological symptoms caused can affect the appearance of athletes in general. Physical condition is an important aspect in implementing an exercise program. Physical activity carried out is the result of a series of two or more physical components or a combination of several physical components.

(Persunay, L.P. and Sidik, Z.D. 2006; Hoppenbrouwers K. Dkk 2016). The success of an athlete in a match is demanded perfect skills in a situation of high physical stress, it is increasingly clear that physical condition plays an important role in the improvement of optimal performance. The results of B. Tarigan and R. Pratiwi (2017) studies in volleyball athletes showed that "The results of the research show that the decline rate in the athletes' physical condition in the pre- menstruation phase is 39.1%, in the menstruation phase is 47.1%, and post-menstruation phase is 27.9%."In addition to achievement sports training, performance when practicing is something an athlete must achieve to achieve peak performance. (Jonassah, 2015; Wesselink K.A. Dkk 2016). Establishing an outcome goal is important, including determining performance and process goals. The menstrual cycle can be a factor in the decrease of athlete performance when practicing. This is consistent with the results of the B. Tarigan and R. Pratiwi (2017) studies on volleyball athletes suggesting that "In addition, the decline in the athletes' performance in the pre- menstrual phase is 35.4%, in the menstruation phase is 46, 6%, and post-menstruation phase is 29.5% ".

2 METHOD

This research uses Causal Comparative Research method that is Ex Post Facto. The population in the study was the athlete of UPI Aquatic Student Activity Unit, with the number of samples of 12 female swimming athletes. Data collection techniques used a questionnaire of physical condition and appearance.

3 RESULTS AND DISCUSSION

Based on the results of processing and data analysis, it is showed that the average decrease in physical condition in the phase before menstruation by 30%, during menstruation 33% and after menstrual phase 33%. While the decrease in appearance level in the phase before menstruation of 29%, at 34% menstrual phase and phase after menstruation 33% as shown in table 1.

Table 1: Impact of menstrual cycle against decreased physical condition and appearance of swimming athletes.

No	Menstrual Cycle	Decrease Physical Conditions	Decrease Appearance
1	Phase Before Menstruation	30%	29%
2	Menstruation	33%	34%
3	Phases After Menstruation	33%	33%

Table 1 data shows that the decline in physical condition before menstruation by 30%, during menstruation 33% and after menstrual phase 33%. This means that the decline in the physical condition of the greatest athlete occurs in the second and third phases, namely, menstrual phase (33%) and after menstruation (33%). Based on the data table 1 is known to decrease appearance before menstruation by 29%, at menstrual phase 34% and phase after menstruation 33%. This means that the highest decrease in the appearance of the swimming athlete occurs in the menstrual phase (34%). This is in line with the research results of B. Tarigan and R. Pratiwi, (2017) on volleyball athletes that menstrual phase affect the physical condition and appearance, and also to increase anxiety and decrease in athletes' confidence (Lutan, R. 2007, B Tarigan and R Pratiwi, 2017).

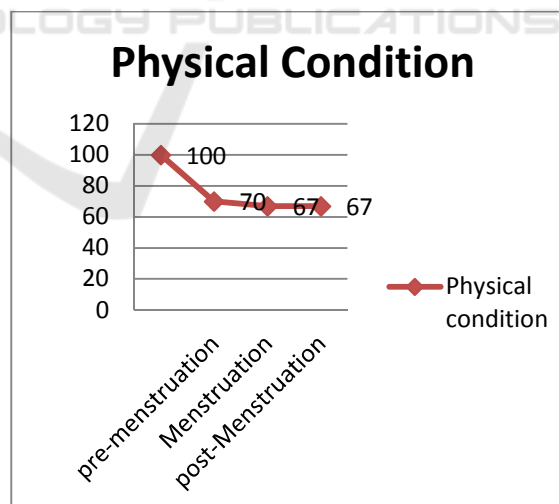


Figure 1: The impact of the menstrual cycle on decreasing physical conditions.

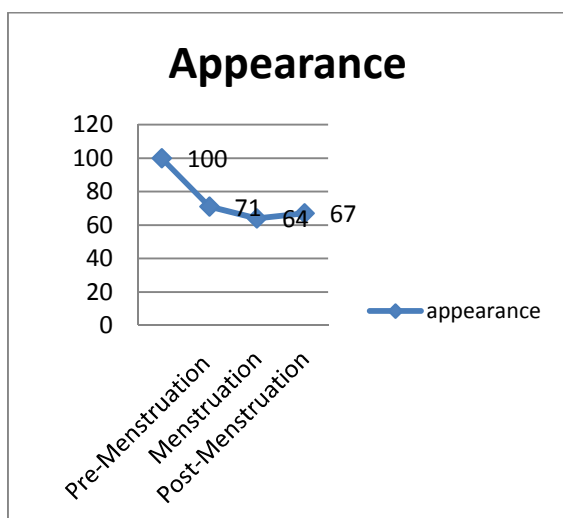


Figure 2: Impact of menstrual cycle on decreasing appearance.

4 CONCLUSIONS

The results showed that the impact of the menstrual cycle on the decline in the level of physical condition before menstruation by 30%, during menstruation 33% and after menstrual phase 33%. While the decrease in appearance levels in the phase before menstruation of 29%, at 34% menstrual phase and phase after menstruation 33%. The greatest impact of the menstrual cycle on physical condition and appearance occurs during the menstrual phase (33%) and the menstrual phase (33%), while the greatest decrease in athlete appearance occurs during the menstrual phase (34%).

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