

# Menstrual Cycle

## *Does it Influence the Anxiety and Confidence of the Swimming Athletes?*

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**Abstract:** This research aims to measure the increase of anxiety level and the decrease of the confidence level of the swimming athletes on their menstrual cycle. The participants consist of 12 swimming athletes. The result shows that the increase of the anxiety level on the pre-menstrual phase is about 27%, 33% during the menstrual phase, and about 36% on the post-menstrual phase. Meanwhile, the decrease of the confidence level on the pre-menstrual phase is about 27%, 30% during the menstrual phase, and about 35% on the post-menstrual phase. The conclusion is that the menstrual phase influences the increase of anxiety level and the decrease of the confidence level of the swimming athletes.

## 1 INTRODUCTION

To achieve such accomplishment in swimming, a long-term, focused, and continuous training process is needed. It starts with developing the athletes through regular, focused, well-planned training, which emphasizes the physical, technical, tactical, or mental aspects. In general, there are many coaches or athletes who think that such great accomplishments can be achieved by training continuously while emphasizing the physical, technical, and tactical only. But, physiological factors also has the influence towards the peak of the achievement itself; menstrual cycle, for instance. The menstrual cycle is a monthly cycle that happens to women every month. This cycle is a set of events that affect each other in a complex way and happens simultaneously (Seeley, Stephens and Tate, P, 2003 and Nillni, 2015). The term 'menstrual cycle' technically refers to the cyclic change that happens on sexual maturity, women who don't get pregnant and are on their menstrual period instead. Periodically, menstrual cycle happens for 26 to 30 days (Wilson, 1990). Prior to the menstruation, there is this syndrome known as Pre-Menstruation Syndrome (PMS). PMS is a set of emotional symptoms in which they are considered as inconvenient and negative physical symptoms affecting the behavior of women in their pre-menstruation period. Those symptoms, such as depression, anxiety, short-temper, confusion, temper

tantrum, the feeling of isolation, breast pain, stomach edema, and so on (Gaion and Vieira, 2011). The psychological problems that happen during this menstrual cycle will affect the athletes' performance while they are in the process of achieving the accomplishment, which will decrease their performance. The psychological symptoms which are caused by this menstrual cycle, such as anxiety, confusion, and lack of confidence. The term 'menstrual cycle' (men'etrou-al) technically refers to the cyclic change that happens on sexual maturity, women who don't get pregnant and they are on their menstrual period instead. Anxiety is the insecure feeling and the worry that follows emerges because of the feeling that there will be unpleasant thing that might happen, but the sources are mostly unknown and it comes from the inside (Kisner, 2009). Anxiety then becomes a quite interesting thing since it inhibits under the wide pressure in sports (Moran, 2004 and Weimberg, Gould, 1995). It means that this negative situation with the nervous feeling, worry, and anxiety are related to the activation of the passion inside. To understand about anxiety, psychological components exploration is needed and to distinguish the meanings between fear and arousal (Moran, 2004). In sports, this anxiety component obviously shows when an athlete suffers from the physical symptoms like excessive sweating, rapid heart beat, short and rapid breath, sweaty palms and inconvenient feeling in the stomach. Cognitive anxiety is indicated by the

negative feelings and anxiety, somatic anxiety is related to the signs of autonomous stimulation (Moran, 2004 and Matsumoto, Kimura, Hayashi, 2016 and Wesselink, 2016). Confidence is someone's belief and attitude towards their own ability by accepting both the positive and the negative things that are formed and studied to aim their own happiness (Tarigan and Pratiwi, 2017). Athletes' confidence consist of belief in their strength, abilities, skills to do and to achieve accomplishment and to be responsible towards the decision made by themselves (Weimberg and Gould, 1995). One of the most consistent discoveries in the literature of the peak performance is the relation between the high confidence and the successful sports performance. This means that the confidence is very important in sports, as they can boost the perormance of the athletes, even the most successful athletes are vulnerable to the faltering confidence (Lane, 2008). Since confidence in sports is important, the athletes need to maintain it so that the athletes' confidence stay in the optimal point. In accordance to that thing above, this research will measure the level of anxiety and confidence, reviewed from the menstrual cycle of the swimming athletes.

## 2 METHOD

This research uses the Causal Comparative Research method, in which it is Ex Post Facto. The participants of this research are the athlets of *Unit Kegiatan Mahasiswa Renang* (Aquatic Team) UPI, with 12 people as samples. The questionnaires about anxiety and confidence as means of the fact-gathering method.

## 3 RESULTS AND DISCUSSION

According to the data processing and analysis, the result of the research shows that the decrease on anxiety on the pre-menstruation state is 27%, 33% during the menstruation and 36% after the menstrual-period. Whereas the decrease on the pre-menstrual state is 27%, 30% during the menstruation, and 35% after the menstrual-period, as presented on Table 1.

Table 1: The effect of the menstrual cycle on the decrease of anxiety and confidence of the swimming athletes.

No	Menstrual Cycle	The Increase of Anxiety	The Decrease of Confidence
1	Pre-Menstrual State	27%	27%
2	Menstrual Period	33%	30%
3	Post-Menstrual State	36%	35%

The data shown on Table 1 shows that the highest increase on the athletes anxiety happen on the state after the menstrual-period, which is 36%, and the lowest decrease of confidence after the menstrual-period is 35%. Related to the increase and the decrease of anxiety and confidence of the swimming athletes, respectively, they are in line with the result of the research conducted by B. Tarigan and R. Pratiwi on the athletic athletes (2017) which shows that the state of menstruation can affect the physical condition and the performance, and to the increase of anxiety and the decrease of the confidence of the athletes.

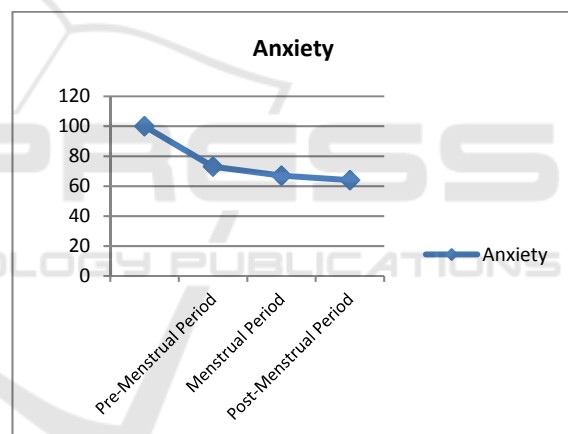


Figure 1: The effects of menstruation on anxiety.

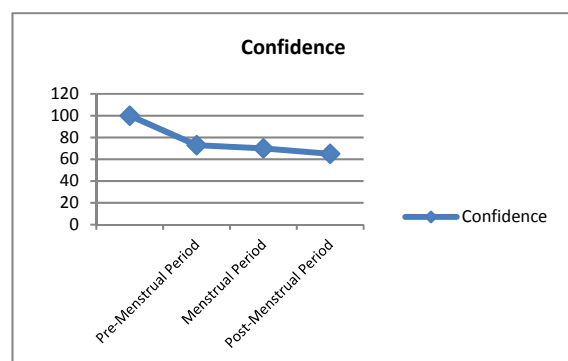


Figure 2: The effects of menstruation on confidence.

## 4 CONCLUSIONS

The result of the research shows that the increase on the swimming athletes' anxiety level after the menstrual-period is 27%, 33% during the menstruation, and 36% after the menstrual-period. Whereas the decrease of confidence to the state prior to the menstruation is 27%, 30% during the menstrual-period, and 35% after the menstrual-period. The highest increase of anxiety that happens after the menstrual-period (36%), as well as the lowest decrease of confidence that happens after the menstrual-period (35%).

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