

The Influence of Menstruation on Self-Confidence and Mental Readiness in Female Athletes

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ABSTRACT

This study aims to examine the relationship between menstrual symptoms, psychological symptoms of menstruation, self-confidence, and mental readiness in female athletes. A total of 50 female athletes from various sports participated in this quantitative research. Data were collected using standardized questionnaires and analyzed using SPSS, including normality tests, linearity tests, and Pearson correlation analysis. The results showed that all variables were normally distributed and exhibited linear relationships. Correlation analysis revealed weak negative relationships between menstrual and psychological symptoms with self-confidence and mental readiness; however, none of the correlations reached statistical significance. The findings suggest that menstrual-related symptoms may not significantly impact psychological aspects of athletic performance, although individual variations exist. This study highlights the importance of considering both physical and psychological well-being in female athletes. Further research is recommended to explore psychological interventions that may enhance mental readiness and self-confidence during menstruation.

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A. Conception and design of the study;
B. Acquisition of data;
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INTRODUCTION

Health and physical fitness are essential factors that support daily activities, particularly for individuals who are actively involved in sports. Sports not only serve as physical activities but also provide numerous benefits in terms of health, education, and achievement. Generally, there are four main objectives in engaging in sports activities: (1) recreational sports, which emphasize physical and mental well-being, (2) competitive sports, which focus on achieving competitive performance, (3) educational sports, which function as a learning medium that enhances knowledge, identifies talents and interests, and develops students' skills, and (4) physical exercise, which aims to improve physical fitness so that individuals can perform optimally in their daily lives (Marsheilla Aguss et al., 2022; Novriliani et al., 2021).

Sports can be defined as activities that involve both physical and psychological training, which help maintain and improve an individual's overall health (Ramadhan &

Bulqini, 2018). In competitive sports, athletic performance is not solely determined by physical ability and technical skills but also by mental readiness and stable psychological conditions. Mental readiness includes the ability to stay focused, maintain composure, and control oneself under competitive pressure.

One of the unique physiological challenges experienced by female athletes is the menstrual cycle. Menstruation is a natural biological process that occurs in females of reproductive age, characterized by the shedding of the uterine lining and the discharge of blood from the uterus (Hanum et al., 2021). Typically lasting around five to seven days each month, menstruation can affect various physical, emotional, and psychological aspects of an individual (Kartika Adyani et al., 2022). Common symptoms such as menstrual pain (dysmenorrhea), mood swings, fatigue, and sleep disturbances can potentially impact athletes' performance during training and competition.

This situation often affects female athletes' self-confidence, especially when they are required to perform under less-than-optimal physical and mental conditions. Self-confidence refers to an individual's belief in their strength, abilities, and skills to face challenges and achieve success (Purnamasari & Novian, 2021). Athletes with high self-confidence tend to make better decisions, maintain focus, and remain mentally resilient under pressure. Research by Decheline et al. (2023) explains that the pain and discomfort experienced during menstruation can lower athletes' self-confidence, which may, in turn, affect their performance on the field.

In addition to self-confidence, mental readiness is another psychological aspect that can be influenced by menstruation. Hormonal changes during the menstrual cycle can trigger emotional instability, including anxiety, irritability, and lack of motivation, all of which can diminish an athlete's mental readiness before a competition (Supriadi, 2021). Pratiwi & Setyawati (2024) found that athletes who experience mild menstrual symptoms tend to have stronger self-confidence and better mental readiness compared to those with more severe symptoms.

Although menstruation is a routine biological process experienced by all women, scientific studies examining its impact on the psychological aspects of athletes—especially on self-confidence and mental readiness—remain limited. Therefore, this research is essential to broaden the understanding of how menstruation influences female athletes' psychological conditions, contributing to both theoretical knowledge and practical applications in the field of sports.

This study aims to identify and analyze the relationship and influence of menstruation on the level of self-confidence and mental readiness of female athletes in facing competitions. The findings are expected to raise awareness among athletes, coaches, and sports professionals about the importance of addressing psychological factors related to the menstrual cycle, thereby supporting athletes in achieving optimal performance.

The introduction must contain what the authors hoped to achieve and state the problem being investigated. The authors are encouraged to write the background of their articles in four (4) parts.

METHODS

This study employs a quantitative approach with a causal-comparative design to examine the influence of menstruation on self-confidence and mental readiness among female athletes. This design allows for numerical measurement and systematic statistical analysis. The research population consists of female athletes aged 18-25 years who are actively training and competing. A sample of 30 athletes will be selected using purposive sampling based on specific criteria, such as having a regular menstrual cycle and willingness to participate. The independent variable is menstruation, which includes both physical and emotional symptoms. The dependent variables are self-confidence and mental readiness, measured using standardised questionnaires. The research instruments include demographic questionnaires, menstruation symptom questionnaires, self-confidence questionnaires, and mental readiness questionnaires. Data collection will involve obtaining permissions, approaching participants, conducting socialization, administering questionnaires, and checking data completeness. The collected data will be analyzed using descriptive statistics to summarise data characteristics and inferential statistics to test hypotheses through normality tests, linearity tests, and regression or MANOVA analysis as needed. The analysis results will identify the direction, strength, and contribution of menstruation's influence on female athletes' self-confidence and mental readiness.

RESULTS AND DISCUSSION

This study involved 50 female athletes from various sports disciplines. Data were collected through questionnaires consisting of four variables: menstrual symptoms, psychological symptoms of menstruation, self-confidence, and mental readiness. The data were analyzed using SPSS to assess normality, linearity, and the relationships between variables through correlation tests. The normality test was conducted to determine whether the data for each variable were normally distributed. Both Kolmogorov-Smirnov and Shapiro-Wilk tests were used since the sample size was 50. According to statistical guidelines, Shapiro-Wilk is preferred for samples ≤ 50 .

Table 1.
Normality Test

Variable	Shapiro-Wilk Sig
Menstrual Symptoms	0.518
Psychological Menstrual Symptoms	0.440
Self-Confidence	0.117
Mental Readiness	0.308

Source: (Researcher, 2025)

All variables showed significance values > 0.05 , indicating that the data were normally distributed. This result supports the use of parametric tests such as Pearson's correlation. The linearity test was used to assess whether a linear relationship existed between the independent variables (menstrual symptoms and psychological symptoms) and the dependent variables (self-confidence and mental readiness).

Table 2.
Linearity Test

Relationship	Linearity F	Sig.	Deviation F.	Sig.
Menstrual Symptoms – Self-Confidence	3.263	0.081	0.892	0.595
Menstrual Symptoms – Mental Readiness	3.199	0.084	1.053	0.439
Psychological Symptoms – Self-Confidence	1.530	0.226	1.023	0.467
Psychological Symptoms – Mental Readiness	0.518	0.478	0.838	0.651

Source: (Researcher, 2025)

Since all deviation from linearity p-values > 0.05, the relationships are linear, allowing the use of Pearson correlation. The Pearson correlation test was applied to examine the strength and direction of the relationships:

Table 3.
Pearson correlation test

Variables	R (Pearson)	Sig.(2-tailed)
Menstrual Symptoms – Self-Confidence	3.263	0.081
Menstrual Symptoms – Mental Readiness	3.199	0.084
Psychological Symptoms – Self-Confidence	1.530	0.226
Psychological Symptoms – Mental Readiness	0.518	0.478

Source: (Researcher, 2025)

There was a weak negative correlation between menstrual symptoms and self-confidence ($r = -0.257$, $p = 0.071$), but it was not statistically significant. Similarly, a weak negative correlation was found between menstrual symptoms and mental readiness ($r = -0.248$, $p = 0.083$). Psychological menstrual symptoms also showed weak negative relationships with both self-confidence ($r = -0.202$, $p = 0.160$) and mental readiness ($r = -0.261$, $p = 0.067$). None of these correlations was statistically significant.

The findings suggest that menstrual symptoms and psychological symptoms tend to correlate negatively with both self-confidence and mental readiness in female athletes, though the relationships are weak and not statistically significant. This implies that while some athletes may experience lower self-confidence or reduced mental readiness during menstruation, these effects vary greatly between individuals. Psychological resilience, coping mechanisms, and support systems likely play a significant role in mitigating these effects.

The near-significant result between psychological symptoms and mental readiness ($p = 0.067$) suggests that emotional factors may have a slightly stronger impact on mental readiness than on self-confidence. This opens an opportunity for further research to explore interventions such as psychological training, stress management, or emotional regulation techniques to support female athletes during their menstrual cycle. The study highlights that no significant statistical influence was found between menstrual factors and the psychological outcomes of self-confidence and mental readiness among female athletes. However, the observed trends warrant attention and suggest the need for holistic approaches in athlete well-being that consider both physical and psychological factors.

CONCLUSION

His study examined the relationship between menstrual symptoms, psychological symptoms of menstruation, self-confidence, and mental readiness in female athletes. The findings indicated that while there were weak negative correlations between menstrual and psychological symptoms with both self-confidence and mental readiness, none of these relationships were statistically significant. This suggests that although some female athletes may experience psychological discomfort or decreased mental readiness during menstruation, these effects are not strong enough to generalise across the population. The study highlights the complexity of factors influencing female athletes' psychological states, where resilience, emotional control, and individual coping strategies likely play a more significant role. The near-significant relationship between psychological symptoms and mental readiness suggests a potential area for further research. Therefore, it is essential for coaches, sports psychologists, and athletes themselves to be aware of the possible psychological fluctuations during menstruation and to develop appropriate support systems.

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