



THE IMPACT AMONG MENSTRUATION, MOTIVATION, AND INTELLECTUAL INTELLIGENCE ON THE ACHIEVEMENT OF FEMALE ATHLETES AT SMANOR TADULAKO SULAWESI TENGAH

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Abstract

This research aims to analyze the impact of menstruation, motivation and intellectual intelligence on the performance of female athletes at SMANOR Tadulako, Sulawesi Tengah. This research is quantitative research using questionnaire, observation and interview data collection techniques. This research was carried out at SMA Negeri Olahraga Tadulako, Sulawesi Tengah. The sample in this study were 34 female athletes who were registered as athletes at SMANOR Tadulako and had participated in championships at both regional and international levels and received medals. The data analysis technique in this research uses a significance test with the help of the SPSS ver. 26. The research results show that the impact variables of menstruation, motivation and intellectual intelligence have a significant impact on the performance of female athletes at SMANOR Tadulako with an effectiveness contribution of 35%. The conclusion of this research is that the variables impact of menstruation, motivation, and intellectual intelligence have an influence on the performance of female athletes at SMANOR Tadulako, Sulawesi Tengah.

Keywords: Impact of Menstruation, Motivation, Intelligence Quotient, Achievement

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INTRODUCTION

Achievement sports are sports that have goals that are managed systematically to obtain or achieve the highest achievements in each sport. People who carry out sports activities with the aim of achievement, of course their sports activities must be carried out in a programmed and systematic manner with the guidance of a coach or someone who is an expert in their field (Hadi, 2011). The success of athletes in championships or sports competitions in achieving achievements is not only seen from a physical perspective (Apollaro et al., 2022). Achieving sporting achievements is influenced by many factors, such as physical, technical, tactical and mental conditions (Komarudin, 2018). The personality characteristics of athletes also vary (Raharjo et al., 2018). Athletes' achievements are influenced by physical, technical, tactical and mental factors. These factors are capital for an athlete to become a superior athlete and be able to achieve peak performance in the field of sport he is involved in. These factors support each other. If any one factor is not optimal, then the achievements achieved will also not be optimal (Adisasmito, 2007).

Achievement in the world of sports can be achieved through a very long process. This process is applied from the coaching carried out by an organization in sports. This coaching includes planning, implementation and regular evaluation (Balyi et al., 2013). Not just evaluation, standardization and equalization of sports infrastructure aims to increase achievement (Irawan & Prasetyo, 2019).

Women differ from men in terms of anatomy, psychology and physiology (Janse DE Jonge et al., 2019). This situation places women in a situation of advantage and disadvantage in the context of elite sports (athletes) because women have irregular menstrual cycles which are sometimes regular every month or irregular, thus having a direct impact on their psychology (Ravi et al., 2021).

The hormonal system that controls the menstrual cycle in women. Generally, this cycle will start when a woman is 12-13 years old (Arazi et al., 2019). Menstruation is a period of life that results from the evolution of a woman's ovarian function. The menstrual cycle of women who exercise frequently is more regular than those who don't. This is also often associated with performance (Czajkowska et al., 2019).

Motivation is something that influences achievement. Athletes' achievements can be obtained from adding motivation to training or competitions, so this motivation is very important in achieving an achievement (Andriansyah et al., 2021). The motivation possessed by athletes is different from one another (Clarasasti & Jatmika, 2017). Various sports psychology literature places the object of motivation study as an important part (Dimiyati, 2018). In fact, in the context of performance sports, many athletes fail to achieve maximum performance due to their low sports motivation (Ginting et al., 2018).

Motivation between men and women is different. As in research (Kilpatrick et al., 2005), shows that men are more motivated by performance and ego-related factors, such as challenge, strength and endurance, competition, and social recognition, when compared to women, what regardless of the type of activity. This difference is consistent with previous research findings that men are more motivated, especially extrinsic motivation (Teo et al., 2015). This research confirms that male athletes are more goal-oriented and prioritize awards, medals and fame compared to female athletes, this confirms previous research conducted by (Chin et al., 2012).

Apart from motivation, intellectual intelligence is also important for achieving achievement. An athlete's intellectual intelligence is clearly visible from the athlete's way of understanding (Juravich & Babiak, 2015). Intellectual intelligence/*intelligence quotient* (IQ) has an influence of 20% on success factors in life (Ahmed, 2015). IQ includes the ability to process information, solve problems and make decisions

(Juwantara, 2019). IQ is one of the pillars of individual athlete success (Widohari et al., 2022).

SMANOR Tadulako is an abbreviation for State High School for Sports, where this school is the center for developing student athletes in Sulawesi Tengah. SMANOR Tadulako does not only focus on achievement but is balanced with academics where the curriculum used here is equivalent to other regular schools. This school has many student athletes who come from various regions in Sulawesi Tengah. In addition to attending school, these student athletes are required to enter a dormitory. So, apart from school, they are also given a place, namely a dormitory, where they are required to live when they become registered students at SMANOR Tadulako. This school has several sports which are the focus for achieving achievements, namely athletics, badminton, rowing, karate, silat, sepak takraw, taekwondo and boxing. This school has 66 female athletes, each of whom has been programmed to achieve championship achievements at regional, provincial, national and even international levels.

Through the explanation above, it was found that there were problems, especially in female athletes, namely changes in mood, fatigue and pain during menstruation. Some athletes experience decline during a match, such as what happened to a female athlete in the sport of silat. The athlete experienced defeat because on the day of the match she experienced menstruation so her performance and concentration decreased. Of course, this has a negative impact in reducing the athlete's motivation to excel. When menstruating, the athlete lacks concentration so it is difficult to organize the right strategy in the match. This is related to the intellectual intelligence of athletes, especially female athletes. In particular, male coaches do not understand that each woman experiences pain during menstruation differently, so they still provide the same training program as athletes who are not menstruating. Apart from that, SMANOR Tadulako has several sports which makes researchers interested in analyzing these things according to the sport they are involved in. This research aims to determine the influence of the impact of menstruation, motivation and intellectual intelligence on the

performance of female athletes at SMANOR Tadulako, Sulawesi Tengah.

METHODS

Location And Time Of Research

This research was conducted at SMANOR Tadulako, Sulawesi Tengah and data collection was carried out for one month on March 2024.

Determination Of Respondents

This research was carried out at SMANOR Tadulako, Sulawesi Tengah. The respondents in this study were 34 female athletes from various sports.

Types Of Research

This research uses quantitative data analysis techniques with a correlational descriptive method approach. Descriptive method is a method that functions to describe or provide an overview of the object being studied through data or samples that have been collected as they are.

Data collection techniques

Quantitative data collection techniques using instruments/questionnaires, observation and interviews. The data analysis method used in this research is a statistical method. This includes prerequisite analysis tests and hypothesis testing. Excel and SPSS version 26 programs.

Data analysis techniques

The data analysis technique used in this research is statistical techniques. This includes prerequisite analysis testing techniques and hypothesis testing. Excel and SPSS version 26 programs were used for further data processing development.

RESULTS AND DISCUSSION

The Impact of Menstruation on the Achievement of Female Athletes at SMANOR Tadulako, Sulawesi Tengah

		Achievement
Impact of Menstruation	Sig (2-tailed)	0,041
	N	34

Table 1 Hypothesis Test Results of the Impact of Menstruation on Achievement

Based on the results of the table above, the sig (2-tailed) value between the impact of menstruation on achievement is 0.041, where $0.041 < 0.05$ means that there is a significant influence between the variable impact of menstruation on the variable achievement of female athletes at SMANOR Tadulako, Sulawesi Tengah.

Women differ from men in terms of anatomy, psychology and physiology. Every month women have to experience a menstrual cycle which is quite disturbing in their daily activities. In female athletes, the symptoms experienced are quite varied, both physically and psychologically. This is caused by the hormone estrogen being released which causes psychological changes in female athletes.

Research (Annisa Pardela, 2019) found that psychological disorders during menstruation are felt more often than physical disorders in athletes, which causes a reduction in the flexibility of a person's attention, which can interfere with their performance. Research (Isherwood et al., 2001) found that during menstruation there was a decrease *endurance performance* influenced by anxiety, fatigue, emotions, *mood*, and depression. Hormonal cycles affect physical and psychological conditions which can affect an athlete's performance, causing the athlete's performance to decline.

The Influence of Motivation on the Achievement of Female Athletes at SMANOR Tadulako, Central Sulawesi

		Achievement
Motivation	Sig (2-tailed)	0,032
	N	34

Table 2 Results of Motivation Hypothesis Testing on Achievement

Based on the results of the table above, the sig (2-tailed) value between motivation and achievement is 0.032 where $0.032 < 0.05$ means that there is a significant influence between motivation variables on the achievement variables of female athletes at SMANOR Tadulako, Sulawesi Tengah.

Motivation is important in achieving achievement. If you don't have motivation, there will be a decline in achievement. As is known, motivation itself is very important and functions as a driving force for business and goal achievement. Research (Ayemi & Wulandari, 2023) found that motivation has an important role in encouraging athletes to be enthusiastic about training so that the athlete's performance increases which will definitely influence the athlete's achievement.

The Influence of Intellectual Intelligence on the Achievement of Female Athletes at SMANOR Tadulako, Central Sulawesi

		Achievement
Intelligence Quotient	Sig (2-tailed)	0,023
	N	34

Table 3 Hypothesis Test Results for Intellectual Intelligence on Achievement

Based on the results of the table above, the sig (2-tailed) value between intellectual intelligence and achievement is 0.023, where $0.023 < 0.05$ means that there is a significant influence between the intellectual intelligence variable and the achievement variable for female athletes at SMANOR Tadulako, Sulawesi Tengah.

Intellectual intelligence is an inseparable part of athlete psychology. It is hoped that athletes who have a good IQ will be able to read match situations, organize strategies well and carry out the right tactics to achieve the expected achievements.

As research (Yanuar Admiral, 2021) found that intelligence values have a significant relationship with soccer playing skills. If a soccer player does not have high intelligence, he will not be able to perform soccer playing skills well. Because if the Intelligence value is high, it will have an influence on the results of good soccer playing skills. Football players who have a high intelligence value will be smarter during training and matches.

Effectiveness Contribution

EFFECTIVENESS CONTRIBUTION	MAR K
Impact of Menstruation	11,3
Motivation	11,5
Intelligence Quotient	12,2
R Square	35,0

Table 4 Effectiveness Contribution

ased on the results of the table above, the data can be explained that the effective contribution of the variables impact of menstruation, motivation and intellectual intelligence on the performance of female athletes is 35%. From these results it can be concluded that the importance of athlete psychology in supporting achievement so that athlete development at SMANOR Tadulako must be selected as well as possible. As in research (Purnama & Raharjo, 2023), it is stated that internal factors really determine the achievements of athletes. Then in research (Rahmat et al., 2022), many adolescence athletes experienced this *burnout* which is caused by several things, one of which is psychological instability.

Field findings from this research show that cognitive performance, such as thinking speed, can decrease slightly during the luteal phase (before menstruation) and during menstruation. However, these findings are still variable and require further research. Hormonal changes during the menstrual cycle can affect motivation levels. Some women feel more productive in certain phases, while others feel more productive in other phases. Several studies show that women's physical performance can be

slightly affected by the menstrual cycle, especially in sports that require high concentration.

CONCLUSION

this study found that there are significant influence between the impact of menstruation, motivation and intellectual intelligence on the performance of female athletes at SMANOR Tadulako, Central Sulawesi. This research can be used so that athletes, coaches and even performance coaching at SMANOR Tadulako can pay more attention to sports psychology, especially female athletes. Limitations in this study can be identified such as limited sample size and limited geographical scope. Other factors related to sports psychology such as anxiety, stress, emotional intelligence, social pressure, match conditions, performance can be considered for future researchers.

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