

Level of motivation, self-confidence, anxiety control, mental preparation, team cohesiveness and concentration of elite and non-elite athletes

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Abstract:

The level of psychological skills of athletes affects the achievement of sports achievements. This study aims to look at the level of psychological skills of elite and non-elite athletes including motivation, self-confidence, anxiety control, mental preparation, team cohesiveness and concentration. This research was quantitative, descriptive, with a cross-sectional design. The population in this study included a total of 534 athletes. For the sample, we used the simple purposive sampling technique to obtain a sample of 90 athletes consisting of 30 elite athletes and 60 non-elite athletes with an age range of 17 - 35 years consisting of 54 male athletes and 35 female athletes. Athletes come from athletics (sprint, long jump, middle distance running and long distance running), swimming, triathlon, weightlifting, bicycle racing (road race and track), and rowing (TBR and canoeing). Data collection techniques involving the psychological skills inventory for sports. The results showed that elite athletes had a "very high" level of psychological skill with a "very high" level of motivation, "very high" self-confidence, "very high" anxiety control, "very high" mental preparation, "very high" team cohesiveness, and "very high" concentrations. While non-elite athletes have a "high" level of psychological skill with a "very high" level of motivation, "high" self-confidence, "high" anxiety control, "high" mental preparation, "high" team cohesiveness, and "high" concentration. Based on the results of the Z test, the sig (2 tailed) value was 0.000 <0.05, so it can be concluded that there is a significant difference between the psychological skill levels of elite and non-elite athletes in Indonesia.

Key Words: motivasi, self-confidence, anxiety control, mental preparation, team cohesiveness, concentration

Introduction

In competitive sports, the influence of psychological factors on athletes is especially evident when athletes are competing. The achievements achieved by athletes certainly cannot be separated from the appearance of athletes when competing. The appearance of athletes when competing is itself influenced by several factors, and one of the factors that most influences the appearance of athletes is the mental factor (Nisa & Jannah, 2021); (Murod & Jannah, 2021). Elite athlete status is achieved through the highest level of performance in achieving achievements, and can be said to be expert performance in a sport (From et al., 2020). This can be seen, among others, from the strong or weak motivation to achieve achievements and win matches. Studies that are currently developing focus on what psychological abilities are most dominantly needed by athletes and how they affect the optimal performance of athletes, (Pierpaolo & Antonia, 2018). This is because the match or competition situation puts pressure not only on the physical but also psychological athletes. Therefore, the training program provided does not only focus on physics, technique and tactics, but also exercises to strengthen psychologically must be carried out by athletes. Besides that, another influential factor is the pressure from the audience, the audience can have a lot of positive influence, if the cheers and shouts are in favor of the athlete or his team and vice versa (Gunarsa, 2008).

Sports psychology is needed in sports because increased stress during training and matches can cause athletes to react negatively, both physically and psychologically, which can lead to decreased sports ability. This situation often causes athletes to not be able to show their best game. The trainers also took an interest in the field of sports psychology, particularly in stress management. The psychological profile of the athlete is usually a description of the general personality, intellectual potential and functions of the mind associated with sports. Athlete profiles don't change much over time. Several psychological aspects can be improved through planned and systematic psychological skill training, the implementation of which is highly dependent on the athlete's commitment to the mental training program. The results of the interview stated that several coaches and athletes really hoped for mental assistance in sports coaching, especially achievement sports with optimal achievement goals (Kardi, 2019). It was further explained that sports psychology is a specialization in brain psychology and kinesiology whose aspects of study are to understand the psychological factors that influence sports activities, physical activity, and apply them to improve athlete performance both individually or as a team.

Motivation as a driving force in every activity requires a clear understanding of goals, means and techniques as well as setting incentives that control and regulate human activity, especially in sports the aspect of motivation is very much needed (Blynova et al., 2022). Achievement motivation is something that exists within a person which is a characteristic that encourages mastering skills, ideas, achieving excellence, overcoming obstacles, performing better than others and being proud of the talent they have in sports (Kardi, 2020). Elite athletes reported having higher levels of motivation, more self-confidence, no problems with anxiety, relying more on their own abilities in mental preparation, focusing more on their own abilities rather than on team abilities, and being successful in focusing concentration.

Confidence has consistently emerged as a key skill possessed by successful elite athletes, and international elite athletes have identified self-confidence as the most important mental skill defining mental toughness (Brewer, 2009). Confidence does not just appear in a person, there is a certain process in his personality so that self-confidence is formed (Marom & Drs. Fatkur Rohman K., 2014). Athletes have identified several types of self-confidence including the need to believe in their ability to perform physical skills, achieve high levels of physical fitness, make sound decisions, exercise mental skills such as focusing attention and managing anxiety, bounce back from failures, overcome obstacles, achieve mastery and performance of self-imposed standards, and winning and demonstrating superiority over opponents. The results of the study show that self-efficacy is the most important factor that makes the difference between athletes who are members of the national team and those who are not members, namely successful and less successful athletes (Mitić et al., 2021). Therefore Optimizing self-confidence for athlete performance is very important, because optimal self-confidence can show maximum performance (Komaruddin, 2015). Confidence is always characterized by high expectations for success. So to be able to achieve peak performance athletes need to have self-confidence, because self-confidence has a significant correlation with improving athlete performance.

Efforts to achieve the best performance can occur, therefore athletes need an optimal level of anxiety zone from each athlete. For example, athlete A will perform optimally if his anxiety level is in the 30% zone range, athlete B will perform maximum if his anxiety degree is in the 40-50% range, while athlete C will perform excellent if his anxiety reaches the 60% zone. The relationship between anxiety and ambition towards achievement illustrates that anxiety has a major effect on the possibility of an athlete's appearance which in itself will affect their game, the level of anxiety generally changes before the match, during and near the end of the match (Husdarta, 2014). Based on this, athletes must have the ability to control anxiety.

Mental preparation is a person's mental state in which the sources of his soul's abilities, namely reason, will and emotion, are ready to carry out tasks according to his abilities. Facing the competition athletes must have mental readiness in addition to physical readiness and skills. Poor mental preparation will result in athletes not being able to bear the mental burden they should be able to bear (Moran, 2004); (Kardi, 2020). Mental readiness comes from mental skills that have been learned which must be continuously trained and improved so that they can produce their potential consistently (Husdarta, 2014). Based on this, according to the United State Olympic Committee USA, the things that athletes need to include in their mental preparation plan include self-talk, images, attentional focus, competition goals, and energy management. Athletes will have a good mentality if given mental imagery training because athletes will have high self-confidence and motivation which can help condition athletes to concentrate in order to get good focus (Iswana, 2018).

The effectiveness of a team depends on two things, namely, the skills of its members and the ability of the leader to facilitate the process. Team cohesion reflects the sense of unity of team members to stay connected or stay in the team and prevent members from leaving the team. In a review of 30 studies, 83% of the studies reported a positive relationship between cohesion and performance, with higher team cohesion associated with greater team success. Another review, using 66 empirical studies assessing the relationship between cohesion and performance in various settings, showed a positive relationship in 92% of the studies, with the strongest relationship being found in team sports (Weinberg, 2011). The first step to building a team can be done by cultivating a sense of unity as a team member so that the best possible team cohesion is formed. In team sports. Joint training activities are very important, especially for forming and developing cooperation and relationships between members, and mutual interest between fellow group members (Husdarta, 2014). It was further emphasized that with the existence of cooperation and interest among team members, it will grow and affect the degree of team cohesiveness. In addition, high team cohesion can foster group loyalty, and this can foster team strength.

Concentration is such an important aspect in sports, not only during matches, but also during practice. Concentration is a big part of athlete performance (Kardi, 2020). In sports the most common problem that arises due to disturbed concentration is the reduced accuracy of throws, punches, kicks and shots so that they do not hit the target (Mardhika & Dimyati, 2015). Concentration is a skill that is very difficult for athletes to master, because the attention that is in the brain often changes which is influenced by new stimuli (Komaruddin, 2015).

This study aims to look at the differences in psychological skills between elite and non-elite athletes in Indonesia. The psychological skills in question include motivation, self-confidence, anxiety control, mental preparation, team cohesiveness, and concentration.

Material & methods

The research method used in this study is a quantitative descriptive method which aims to see an overview of the psychological characteristics of elite and non-elite athletes in Indonesia in terms of experience in participating in national and international competitions. Athletes are categorized into two groups, namely elite athletes who often participate in national and international competitions and non-elite athletes who rarely participate in competitions at both the national and international levels.

The population is 534 athletes. The technique of determining the sampling using purposive sampling, namely with the criteria of athletes in the sports competition category which consists of six sports including; athletics (sprint, long jump, middle distance running and long distance running), swimming, triathlon, weightlifting, cycling (road race and track), and rowing (TBR and Canoeing) consisting of 90 athletes including 30 elite athletes and 60 non elite. The sample ages ranged from 17 - 35 years consisting of 54 male athletes and 36 female athletes.

The psychological characteristics of elite and non-elite athletes were measured by adopting the psychological skills inventory for sports instrument developed by Mahoney, Gabriel & Perkin in 1987 which revealed six aspects of psychological skills with 44 items. Before being used, the psychological skills inventory for sports instrument was tested first to adjust to the characteristics of Indonesian athletes. The test results obtained results consisting of six psychological aspects with 38 valid question items, namely fulfilling the criteria of r table > 0.2227 (for 76 trial samples). The validity of the instrument seen from the value of r table ranged from $0.320 - 0.714 > 0.2227$, so that 38 items were valid questions, while the reliability of the instrument was 0.890, so the instrument was feasible to use.

Research procedures include adopting research instruments, testing research instruments, tabulation, and data analysis. Based on the test results, the instrument categories and categories for each psychological aspect include motivation, self-confidence, anxiety control, mental preparation, team cohesiveness, and concentration level. To find out the categories of psychological skill characteristics possessed by athletes, the data is categorized based on the ideal mean and ideal standard deviation using the following formula:

$$Mi = \frac{(ST + SR)}{2} \quad SDi = \frac{(ST - SR)}{6}$$

Explanation: Mi = ideal mean; SDi = ideal standar deviation; ST = the high score; SR = the low score

Tabel 1. The formula for determining the criteria for the psychological skills inventory instrument for sports

No	Interval	Category
1	above ($Mi + 1,8SD$) up to ($Mi + 3SD$)	Very High
2	above ($Mi + 0,6$) up to ($Mi + 1,8SD$)	High
3	above ($Mi - 0,6SD$) up to ($Mi + 0,6SD$)	Medium
4	above ($Mi - 1,8SD$) up to ($Mi - 0,6SD$)	Low
5	($Mi - 3SD$) up to ($Mi - 1,8SD$)	Very Low

Results

Data obtained through the instrument The Psychological Skills Inventory for Sports with a total of 90 samples were analyzed and the following results were obtained:

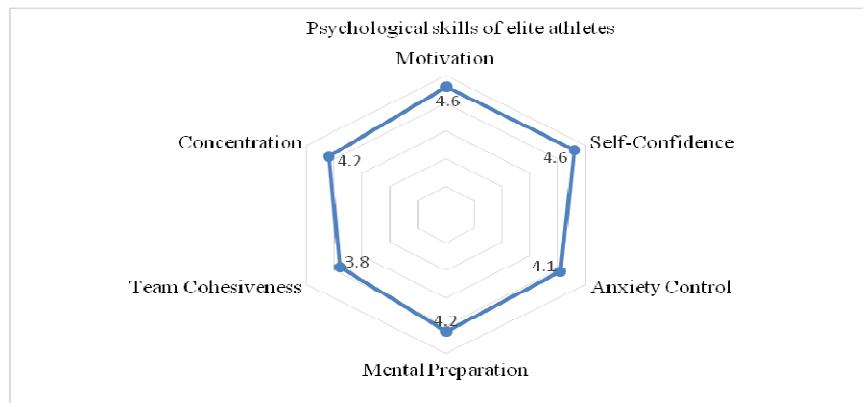
1. Psychological skills of elite athletes

The psychological skills of Indonesian elite athletes include motivation, self-confidence, anxiety control, mental preparation, team cohesiveness, and concentration can be seen in table 2.

Table 2. The psychological skills of Indonesian elite athletes

Aspect	Average score (scale 1-5)	Score	Category
Motivation	4.6	36.8	Very High
Self-Confidence	4.6	31.9	Very High
Anxiety Control	4.1	28.6	Very High
Mental Preparation	4.0	25.5	Very High
Team Cohesiveness	3.8	14.9	High
Concentration	4.2	25.0	Very High
Total Score		161.1	Very High

Based on table 2 it can be concluded that elite athletes have very high category psychological skills with a score of 161.1. Aspects of motivation, self-confidence, anxiety control, mental preparation, and concentration score in the very high category, while team cohesiveness scores in the high category.

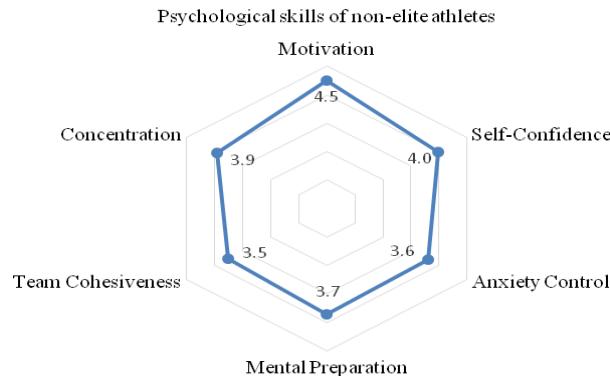
**Figure 1.** Level of Psychological Skills of Indonesian Elite Athletes

2. Psychological skills of non-elite athletes

Table 3. Psychological skills of Indonesian non-elite athletes

Aspect	Average score (scale 1-5)	Score	Category
Motivation	4.5	36.0	Very High
Self-Confidence	4.0	27.8	High
Anxiety Control	3.6	25.4	High
Mental Preparation	3.7	21.2	High
Team Cohesiveness	3.5	14.2	High
Concentration	3.9	22.8	High
Total Score		148.0	High

Based on table 3 it can be concluded that non-elite athletes have psychological skills in the high category with a score of 148.0. Aspects of motivation get scores in the very high category, while self-confidence, anxiety control, mental preparation, team cohesiveness, and concentration get scores in the high category.

**Figure 2.** Level of Psychological Skills of Indonesian Non-Elite Athletes

3. Differences in Psychological Skills of Elite Athletes and non-elite athletes

Based on data analysis using the Z test, it was found that there were significant differences between the psychological skills possessed by Indonesian elite and non-elite athletes. The results can be seen in table 4.

Table 4. The results of the analysis of differences using the Z test

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Elit and Non Elite Athlete	5.898	.017	-5.620	88	.000
Elit Athlete	Equal variances not assumed		-6.200	75.185	.000

Based on the results obtained in table 4 it can be concluded that there are significant differences in psychological skills between Indonesian elite and non-elite athletes. This is based on the results of the Z test which shows the sig. (2-tailed) $0.000 < 0.05$.

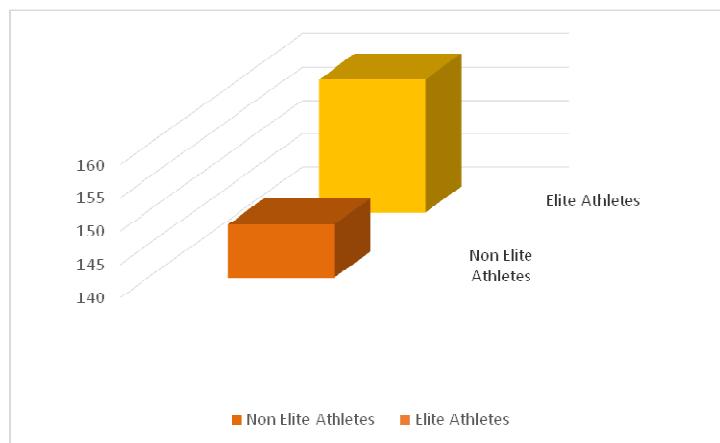


Figure 3. Differences in the level of psychological skills of elite and non-elite athletes in Indonesia

Discussion

Based on the average score of the motivational aspects of elite and non-elite athletes, they have the same level, which is in the very high category. Intrinsic motivation is the dominant aspect possessed by athletes. This was reinforced by the existence of open interviews with several athletes, including athletes in the 100 meter hurdles and seven races who revealed that "My strong motivation helped me a lot in going through the training phases so that I could finally win a gold medal, even broke the national record for the 100 meter hurdles. Motivation plays an important role in supporting peak performance, especially achievement motivation and more specifically intrinsic motivation (Kardi, 2020). The development of an individual's motivational orientation assumes that the exercises carried out are aimed at achieving certain goals (Blynova et al, 2022).

Based on the average score of the elite athlete's self-confidence aspect, it shows dominance in the very high category, while in non-elite athletes, the high category is obtained. Based on this, the results of the study revealed that the level of confidence in elite and non-elite athletes had differences. Based on the results of an interview with one of the athletes, in preparing for an event athletes sometimes experience disbelief in their abilities. Because basically psychological problems are always not purely psychological in origin, they could come from other aspects such as physical problems. This was revealed from the results of the interview which stated that "During my time as a long-distance runner, I never felt insecure due to the injury I experienced, during the preparation for the SEA Games XXVIII". Based on this, special attention is needed for athletes who experience physical injuries, because either directly or indirectly it will affect the psychology of athletes. Confidence can be considered as a soul modifier because trust appears to change how athletes feel, respond, and think about everything that happens to athletes in sports (Brewer, 2009). Based on the results of the study, it was revealed that elite athletes have a higher level of self-confidence than non-elite athletes, due to their long training and competition experience which are also higher and frequent. A high level of self-confidence will increase motivation, increase concentration and prevent the effects of anxiety in facing competition (Najah & Rejeb, 2016; Robbani & Dimyati, 2019).

Many athletes are not successful in realizing their optimal abilities simply because of excessive anxiety and fear of failure. Sports competition arenas have an influence on anxiety (Husdarta, 2014). The results of interviews with coaches revealed that "There are athletes who practice well, but when the competition is not so good, however, there are also athletes who practice mediocre, but can show optimal results when competing". This proves that aspects of anxiety control need to be owned by athletes, especially in facing competition. Elite athletes who have faced more competition are better able to control anxiety during training or competition. A decrease in physical ability, even though it is not seen, can cause an increase in fatigue, which can affect changes in the athlete's mood and consequently decrease sports performance (D'Alpino et al, 2022).

Facing a competition, athletes must have mental readiness in addition to physical and technical readiness, and tactics. Poor mental readiness will result in athletes not being able to bear the mental burden they should be able to bear. Mental readiness is an extremely important factor affecting the performance of athletes (Gunarsa, 2008). The purpose of mental training is for athletes to better control their thoughts, emotions and behavior while they are displaying their sports performance (Juriah & Tahki, 2017). Based on the results of the interview, it was revealed that the road race bicycle athlete stated that "Every day I do mental training, even though I only do it independently". In contrast to bowling athletes "I often do mental preparation, especially imagery and visualization but don't feel what my muscles feel." This illustrates that the way athletes prepare mentally and carry out training independently needs to be directed and assisted, so that the mental preparation is not wrong and does not have any impact on their performance. These triggers can be prevented and controlled, so athletes can show their best performance when competing on the field (Guntoro, 2020; Prasetyo et al, 2022).

Based on the results of data analysis, the aspect of team cohesiveness between elite and non-elite athletes has the same level, namely in the high category. This happens because the characteristics of the sports that are

occupied by athletes are on average individual sports, so that the ability of athletes to work together in teams tends to be lacking. Another review, using 66 empirical studies assessing the relationship between cohesion and performance in various settings, showed a positive relationship in 92% of the studies, with the strongest relationship found in team sports. Working together in a team, especially sports, does not just come together, there must be harmony and connection between members, such as in the 4 × 100 meter relay event, which is experiencing a dilemma where one of its leading athletes has an accident. This makes coaches and other athletes have to work harder in overcoming these problems. Although there are replacements, the adaptation process does not go as easy as one might think. The same goes for cyclists who are temporarily adjusting which athletes will join teams and individuals. Athletes are said to have concentration when athletes have the right focus when what is being done is in line with what is being thought (Komarudin, 2015). In certain sports, the aspect of concentration is a very dominant aspect and has a major influence on athlete achievement. One of them is clearly seen in archery, track and field numbers and table tennis. Without the ability to concentrate on aiming at targets, it is impossible for an archer to achieve satisfactory results. An athlete's concentration and anxiety are both influenced by two factors, namely internal factors within the athlete such as physical and mental and external factors encountered by the athlete such as the match situation and the atmosphere of the arena (Murod & Jannah, 2021).

Conclusions

Based on the results of the study it can be concluded that the level of psychological skills of elite and non-elite athletes in Indonesia has differences. This was revealed from the results of the six aspects of psychological skills that were measured. Aspects of motivation are in the same category, but in the other five aspects, namely self-confidence, anxiety control, mental preparation, team cohesiveness, and concentration, it shows that elite athletes are more dominant than non-elite athletes.

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