Comparative Study of the Psychological Characteristics Athletes in terms of Individual Sports and the Team

Lidya Erika
Bengkulu University
erikalidya95@gmail.com

Yahya Eko Nopiyanto
Bengkulu University
yahyaekonopiyanto@unib.ac.id

Defliyanto
Bengkulu University
defliyanto@unib.ac.id

Corresponding Email: defliyanto@unib.ac.id

Abstract

This research was aimed to investigate: (1) the psychological characteristics of SMANKO Bengkulu Province athletes in terms of individual sports, (2) in terms of team sports, (3) the psychological characteristic differences of SMANKO Bengkulu Province athletes in terms of individual and team sports. This research employed the quantitative with comparative design. The subjects in this research were 56 athletes, namely 28 individual athletes and 28 team sports athletes. The data collection technique was conducted with the psychological skills inventory for sports that adopted from Mahoney, Gabriel & Perkins, (1987). Data were analyzed using t-test with a significant level of 0.05. The data were collected using the Psychological Skills Inventory for Sports questionnaire and analyzed using the independent sample t test. The research findings revealed that: (1) the psychological characteristics of SMANKO Bengkulu Province athletes in terms of individual sports, (2) the psychological characteristics of SMANKO Bengkulu Province athletes in terms of team sports are in high category, (3) there were no significant differences in the psychological characteristics of SMANKO Bengkulu Province athletes in terms of individual and team sports values = 0.508 > 0.05.

Keywords: Athletes, Bengkulu, Individual, Psychological, Team.
Introduction

Bengkulu Sports Gifted Public High School (SMANKO) is a place for athletes to receive education and focus on the sports they are involved in to improve achievement in the sports field. In sports, achievement is one of the factors for sports development. To improve performance, several components determine achievement, namely the psychological characteristics of athletes. An athlete must have good psychological characteristics to maximize performance and achievements (Nopiyanto et al., 2019). Psychological characteristics are psychological components in athletes that affect appearance and achievement (Nopiyanto et al., 2019). To achieve victory in sports, one prioritizes skills and involves mentality, which significantly influences sports achievements. If you feel mentally defeated, the skills will not come out. In order to produce good sports performance, three aspects are needed as a driver and support for athlete achievement: physical condition, skill level, and psychological readiness when competing (Karageorghis & Terry, 2010). As important as physical skills, psychological skills must be trained systematically to improve athlete performance. One is practicing focusing attention, increasing confidence, increasing athlete motivation, and regulating arousal levels (Weinberg & Gould, 2011).

Furthermore, Karageorghis & Terry (2010) explained that psychological readiness determines success in sports. In the absence of an athlete's mental toughness, the athlete will not be ready to compete correctly. The awareness of coaches and sports coaches in Indonesia about the importance of psychological components for developing sports achievements needs to be improved (Nopiyanto et al., 2019). This is reflected in direct practice on the field or in sports coaching rules. It is challenging to find coaches who pay attention to and apply mental skills training to the athletes they specifically train (Ahsan et al., 2013).

At the Bengkulu State High School for Sports Giftedness (SMANKO), there are two types of sports: individual and team sports. Individual sports are sports played by 1 or 2 people against each other. Individual sports at SMANKO Bengkulu include boxing, wrestling, weightlifting, athletics, taekwondo, swimming, karate, gymnastics, and table tennis. Next is team sports, which are said to be team sports are sports that are played by 2 or more people and prioritize teamwork. The team sports at SMANKO Bengkulu include futsal, football, volleyball, and takraw. Based on some of the results of previous studies, it was stated that there were differences in the psychological skills of athletes in individual sports.
and team sports. There is a difference between individual sports and team sports; individual sports have a higher level of confidence than team sports (Cooke et al., 2013). Individual sports and team sports have differences in terms of anxiety and effort. (Cooke, Kavussanu, McIntyre, & Ring, 2013). Body movement activities, the rules used in sports, and the behavior caused by athletes from each sport will form different characteristics because the psychological components of each athlete are different (Hermawati, 2014). Based on experts' opinions, psychological factors have an essential role in maximizing the performance and achievements of athletes. In a more specific scope, the authors argue that athletes' psychological characteristics are vital in increasing sports achievement. The psychological characteristics of athletes are psychological aspects that are inherent in athletes and influence the success of athletes' performances. Psychological skills include motivation, self-confidence, mental preparation, anxiety, concentration, and team cohesiveness.

Based on the author's knowledge, previous studies were conducted on national and international professional athletes. However, until now, there has yet to be data describing the psychological characteristics of Bengkulu SMANKO athletes in terms of individual sports and team sports. Not all Bengkulu SMANKO athletes are professional athletes at national and international levels. Problems regarding athletes' psychological aspects and characteristics need to be studied further to improve sports performance. Therefore this study will focus on the problem with the title "comparative study of the psychological characteristics of athletes at the State High School of Bengkulu Province's Sports Giftedness in terms of individual and team sports."

Research Method

The type of research used in this research is quantitative, using a survey method with a retrospective causal-comparative design (Mills & Gay, 2013) is a research that seeks to determine the causes or reasons for differences in the psychological characteristics of athletes in individual sports and team sports at the State High School for Sports Giftedness (SMANKO) Bengkulu Province. This research was conducted at the State High School for Sports Giftedness (SMANKO) Bengkulu Province, located on Jl. Raya Halmahera No. 01 RT.07 RW.04, Surabaya Village, Sungai Serut District, Bengkulu City, Bengkulu Province on 17 February – 17 March 2021. The subjects of this study were 56 athletes from SMANKO
Bengkulu Province, divided into 28 athletes from individual sports athletes and 28 from team sports. Data collection techniques and instruments used the questionnaire "The Psychological Skills Inventory for Sports" adopted from Mahoney, Gabriel, & Perkins (1978), which consisted of 38 statements, 8 statements from the motivational aspect, 7 statements from the self-confidence aspect, 7 statements from the anxiety control, 6 statements from the aspect of mental preparation, 4 statements from the aspect of the importance of the team and 6 statements from the aspect of concentration. The data analysis technique in this study used the t-test. The data collection procedure was done by distributing questionnaires to all research subjects at SMANKO Bengkulu Province.

The researcher formulated a standard based on the average value and ideal standard deviation to determine the psychological characteristics of SMANKO athletes in terms of individual and team sports, then grouped the data according to the following formula:

\[
MI = \frac{(ST + SR)}{2} \quad SDi = \frac{(ST - SR)}{6}
\]

Noted:

Mi : Mean ideal
Sdi : Standard deviation of the ideal
SR : Lowest score
ST : Highest score

To determine the category criteria to know the psychological characteristics of SMANKO athletes in terms of individual and team sports, the formula for determining the criteria is set as follows:

**Table 1. Criteria Determination Formula (Wagiran, 2015: 337)**

<table>
<thead>
<tr>
<th>No</th>
<th>Interval</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>di atas (Mi + 1,8 SD) s.d. (Mi + 3 SD)</td>
<td>Very high</td>
</tr>
<tr>
<td>2</td>
<td>di atas (Mi + 0,6 SD) s.d. (Mi + 1,8 SD)</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>di atas (Mi – 0,6SD) s.d. (Mi + 0,6 SD)</td>
<td>Medium</td>
</tr>
<tr>
<td>4</td>
<td>di atas (Mi -1,8 SD) s.d. (Mi – 0,6 SD)</td>
<td>Low</td>
</tr>
<tr>
<td>5</td>
<td>(Mi – 3 SD) s.d. (Mi -1,8 SD)</td>
<td>Very low</td>
</tr>
</tbody>
</table>
Result and Discussion

The psychological characteristics of Bengkulu Province SMANKO athletes in terms of individual sports and team sports in general can be seen in the following table:

Table 2. Psychological Characteristics of Bengkulu Province High School Athletes in View of Individual Sports Branches in General

<table>
<thead>
<tr>
<th>No</th>
<th>General Aspect Score Range</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>di atas 159,59 s.d. 189,99</td>
<td>Very high</td>
<td>3</td>
<td>10,71</td>
</tr>
<tr>
<td>2</td>
<td>di atas 129,2 s.d. 159,59</td>
<td>High</td>
<td>21</td>
<td>75,00</td>
</tr>
<tr>
<td>3</td>
<td>di atas 98,8 s.d. 129,2</td>
<td>Medium</td>
<td>4</td>
<td>14,29</td>
</tr>
<tr>
<td>4</td>
<td>di atas 68,41 s.d. 98,8</td>
<td>Low</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>38,0 s.d. 68,41</td>
<td>Very low</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>28</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

From the table above, it can be seen that the psychological characteristics of the Bengkulu Province SMANKO athletes in terms of individual sports branches generally consist of 28 athletes, namely 3 athletes who are in the very high category, 21 athletes who are in the high category, 4 athletes who are in the medium category, 0 athletes are in the low category, and 0 athletes are in the deficient category. When viewed from the percentage, it can be seen that in general, 10.71% of athletes are in the very high category; 75.00% of athletes are in the high category; 14.29% are in the medium category; 0% of athletes are in the low category; 0% is in the deficient category. So the psychological characteristics of SMANKO Bengkulu Province athletes in terms of individual sports are generally in the high category with a percentage of 75.00%.
Figure 1. Psychological Characteristics Diagram of Bengkulu Province High School Athletes Viewed from Individual Sports Branches in General

Table 3. Psychological Characteristics of Bengkulu Province SMANKO Athletes Viewed from Team Sports in General

<table>
<thead>
<tr>
<th>No</th>
<th>General Aspect Score Range</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt; 159,59 s.d. 189,99</td>
<td>Very high</td>
<td>5</td>
<td>17.86</td>
</tr>
<tr>
<td>2</td>
<td>&gt; 129,2 s.d. 159,59</td>
<td>High</td>
<td>18</td>
<td>64.29</td>
</tr>
<tr>
<td>3</td>
<td>&gt; 98,8 s.d. 129,2</td>
<td>Medium</td>
<td>5</td>
<td>17.86</td>
</tr>
<tr>
<td>4</td>
<td>&gt; as 68,41 s.d. 98,8</td>
<td>Low</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>38,0 s.d. 68,41</td>
<td>Very low</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table above, it can be seen the psychological characteristics of Bengkulu Province SMANKO athletes in terms of team sports. 5 athletes are in the moderate category, 0 athletes are in the low category, and 0 athletes are in the deficient category. When viewed from the percentage, it can be seen that in general, 17.86% of athletes are in the very high category; 64.29% of athletes are in the high category; 17.86% are in the medium category; 0% of athletes are in the low category; 0% is in the very low category. So it can be concluded that the psychological characteristics of the Bengkulu Province SMANKO athletes in terms of team sports are generally in the high category with a percentage of 64.29%.

Figure 2. Psychological Characteristics Diagram of SMANKO Athletes in Bengkulu Province in View of Individual Sports Branches in General
Normality test

The normality test is a test that is carried out with the aim of assessing the distribution of data in a group of data or variables, whether the data distribution is normally distributed or not. The normality test uses the Kolmogorov-Smirnov test with the following criteria:

1. If the sig. < 0.05, then Ho is rejected. So that the data comes from a population that is not normally distributed.
2. If the sig. > 0.05, then Ho is accepted. So that the data comes from a normally distributed population.

Table 4. Results of the Normality Test for Characteristics of SMANKO Athletes in Bengkulu Province in View of Individual and Team Sports Branches

<table>
<thead>
<tr>
<th></th>
<th>Individual Sports</th>
<th>Team Sports</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Mean</td>
<td>142.79</td>
<td>143.54</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>15.975</td>
<td>14.505</td>
</tr>
<tr>
<td>Sig.</td>
<td>.487</td>
<td>.986</td>
</tr>
</tbody>
</table>

The normality test for athlete data for individual and team sports uses a significance level of 0.05. If the sig value is greater than 0.05, then the data is declared normal. Based on Table 3, it can be seen that the sig. Individual sports is 0.487 where 0.487 > 0.05, and the sig value for team sports is 0.986 where 0.986 > 0.05, so in terms of individual and team sports, the population is normally distributed.

Homogeneity Test

A homogeneity test is a test of whether the variances of two or more distributions are the same. A homogeneity test was conducted to determine whether the data in variables X and Y are homogeneous. The homogeneity test is used to determine whether the data has a homogeneous variance because the different test (t-test) requires the data to have a homogeneous variance. The homogeneity test of variance uses Levene's test with the following criteria:

1. If the sig. < 0.05, then Ho is rejected. So that the data has a homogeneous variance.
2. If the sig. > 0.05, then Ho is accepted. So that the data has a homogeneous variance.
Tabel 5. Homogeneity Test Results of Variance Characteristics of SMANKO Athletes in Bengkulu Province Viewed from Individual and Team Sports Branches

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.444</td>
<td>1</td>
<td>54</td>
<td>0.508</td>
</tr>
</tbody>
</table>

Based on table 4 it can be seen that the sig. of 0.508 where 0.508 > 0.05, then Ho is accepted so that the data has a homogeneous variance.

Hypothesis test

Hypothesis I testing aims to determine whether there is a significant difference in the psychological characteristics of the athletes at SMANKO Bengkulu Province regarding individual and team sports. To test the hypothesis, a different test was carried out using the t test, namely the Independent Sample t test. Hypothesis:

Ho : There is no significant difference in the psychological characteristics of SMANKO athletes Bengkulu Province in terms of individual and team sports.

Criteria:

If sig. > 0.05, then Ho is accepted. So there is no significant difference between the groups being compared.

Tabel 6. The results of the Independent Sample T Test Psychological Characteristics of SMANKO Athletes in Bengkulu Province in View of Individual and Team Sports Branches

<table>
<thead>
<tr>
<th>Levane’s Test</th>
<th>T</th>
<th>Df</th>
<th>Sig.2-tailed</th>
<th>Mean Difference</th>
<th>Std.Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>0.444</td>
<td>0.508</td>
<td>0.184 54</td>
<td>-75000</td>
<td>4.07789</td>
</tr>
</tbody>
</table>

Based on table 6, it can be seen that the calculated t value = 0.184 with a sig. = 0.508 > 0.05, then Ho is accepted. So it can be concluded that there is no significant difference between the psychological characteristics of SMANKO Bengkulu Province athletes in terms of individual and team sports.
Discussion

The results of data analysis need to be studied further by providing an interpretation of the relationship between the results of the analysis achieved and the theories that underlie this research. This explanation is necessary in order to know the compatibility between the theories put forward and the research results obtained. The discussion of the results of this study are as follows:

Psychological Characteristics of Bengkulu Province High School Athletes Viewed from Individual Sports Branches

a. Motivation

Based on the results of data analysis, it is known that athlete motivation in terms of individual sports is in the very high category, with an average value of 89.29%. The results of this study are also supported by the results of research conducted by Nopiyanto, Raibowo & Prabowo (2021), which states that in the sport of weightlifting, great Motivation is needed to be able to lift iron at the best level. It is not surprising that SMANKO Bengkulu Province athletes, in terms of individual sports, have high Motivation. This is because athletes have a strong desire that drives them to be successful in the sport they are practicing.

b. Confidence

Based on the results of data analysis, it is known that athlete confidence in terms of individual sports is in the moderate category with an average value of 42.86%. According to Husdarta (2010: 92), one of the main assets and absolute requirements for achieving brilliant sporting achievements is self-confidence. It is not surprising that SMANKO Bengkulu Province athletes, in terms of individual sports, have moderate Confidence. This is because athletes have Confidence in their ability to be successful in the sport they are practicing.

c. Anxiety Control

Based on the results of data analysis, it is known that athlete anxiety control in terms of individual sports is in the very high category, with an average value of 28.57%. The anxiety level of athletes in terms of individual sports is higher when compared to athletes in team sports Bookani, Sadeghi, Alipour, Zarga, and Aghdam (2015). Based on the results of previous research, it can be concluded that the level of anxiety in terms of individual sports is in the high category. For this reason, in terms of individual sports, SMANKO Bengkulu Province athletes must have high anxiety control.
d. Mental Preparation

Based on the results of data analysis, it is known that the mental preparation of athletes in terms of individual sports is in the high category, with an average value of 53.57%. The results of this study indicate that the Bengkulu Province SMANKO athletes have made mental preparation which includes cognitive, emotional, behavioral, and psychological aspects. The success and failure of players in sports achievements are largely determined by a combination of physical and mental factors and abilities (Nopiyanto et al., 2019).

e. The Importance of the Team

Based on the results of data analysis, it is known that the "importance of the team" of athletes in terms of individual sports is in the high category, with an average value of 39.29%. Even though individual sports are carried out individually, achieving success requires collaboration between athletes, coaches, and sports psychologists. SMANKO Athletes of Bengkulu Province have good cooperation values, so they will prioritize common interests rather than personal interests.

f. Concentration

Based on the results of data analysis, it is known that the Concentration of athletes in terms of individual sports is in the moderate category with an average value of 39.29%. 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 (Mardika & Dimyati, 2015, p. 110). Fernandez, Silva-Pereyra, and Mesa (2013) stated that kung fu athletes have a higher level of attention when compared to judo and taekwondo. All existing sports require good Concentration, so it is not surprising that the results of this study show that Bengkulu Province SMANKO athletes have Concentration in the moderate category.

Psychological Characteristics of Bengkulu Province SMANKO Athletes Viewed from the Team Sports Branch

a. Motivation

Based on the results of data analysis, it is known that athlete motivation in terms of team sports is in the very high category, with an average value of 78.51%. The results of this study are also supported by the results of previous studies, which state that achieving success requires high Motivation. As stated (Husdarta 2014), that achievement without Motivation is
impossible. So it can be ascertained that athletes who excel have high Motivation (Nopiyanto et al., 2021). Judging from the many achievements that have been made by the Bengkulu Province SMANKO athletes, it shows that it is true that they have high Motivation, both intrinsic Motivation and extrinsic Motivation.

b. Confidence

Based on the results of data analysis, it is known that the athlete's Confidence in terms of team branches is in the very high category with an average value of 42.86%. Teams where players show high self-confidence also tend to show their best and have a greater tendency to support the team (Karageorghis & Terry, 2010).

c. Anxiety Control

Based on the results of data analysis, it is known that athlete anxiety control in terms of team sports is in the high category, with an average value of 42.86%. Anxiety is a negative state characterized by nervousness, worry, and apprehension and is related to the activation of arousal bodies (Weinberg & Gould, 2011). Based on the results of previous research, it can be concluded that the level of anxiety in terms of team sports is in the high category. For this reason, the Bengkulu Province SMANKO athletes, in terms of team sports, must have high anxiety control.

d. Mental Preparation

Based on the results of data analysis, it is known that the mental preparation of athletes in terms of team sports is in the moderate category, with an average value of 35.71%. The results of this study indicate that the Bengkulu Province SMANKO athletes have made mental preparation which includes cognitive, emotional, behavioral, and psychological aspects. Mental preparation is just as important as physical and technical preparation.

e. The Importance of the Team

Based on the results of data analysis, it is known that the "importance of the team" of athletes in terms of team sports is in the very high category, with an average value of 35.71%. Teams are groups of people who must interact with each other to achieve a common goal (Weinberg & Gould, 2011). SMANKO Athletes of Bengkulu Province have good cooperation values, so they will prioritize common interests rather than personal interests.
f. Concentration

Based on the results of data analysis, it is known that the Concentration of athletes in terms of team sports is in the moderate category with an average value of 42.86%. The results of this study are in accordance with the theory, which states that Concentration is one of the psychological factors that affect the performance of athletes. And when Concentration is disturbed, the accuracy of throwing, hitting, and shooting will decrease so that things that should have accuracy in doing so fail because of the lack of Concentration one has (Komaruddin, 2015).

Differences in Psychological Characteristics of Bengkulu Province SMANKO Athletes in View of Individual and Team Sports Branches

Based on the results of data analysis, it can be seen that the average score of athletes in individual sports is 15.9953, and in team, sports is 14.05054, and t count = -184 with a sig. Value of 0.508 > 0.05, then Ho is accepted. So it can be concluded that there is no significant difference in the psychological characteristics of the Bengkulu Province SMANKO athletes in terms of individual and team sports. The results of previous studies also stated that there were no significant differences in the psychological characteristics of male and female athletes in terms of individual sports. The results of research by Hussain, Zaman & Idris (2014) stated that there was no significant difference between male athletes (360 athletes) and female athletes (360 athletes) in terms of cognitive anxiety, somatic anxiety, and self-confidence in individual sports (table tennis). singles, singles, and athletics) and team (volleyball, basketball, handball) conducted by (Uçan & Çağlayan, 2012: 279) also found that there was no significant difference between male athletes (49 athletes) and women ( 52 athletes) in terms of self-esteem in individual sports (swimming, gymnastics, rowing, archery, and athletics). Furthermore, research conducted by (Nopiyanto et al. (2021) state that there is no difference in psychological characteristics between male and female athletes in PPLP Bengkulu is caused by several factors, including the age of athletes who are still teenagers between 14-17 years, the majority of experience competing at the regional or regional level, the existence of the same orientation between male and female athletes.

Based on the description above, it can be concluded that the type of sport is not a reference for an athlete not to perform optimally. Both individual and team sports can have
aspects of good psychological characteristics depending on the individual himself and his environment. Furthermore, the age of the Bengkulu Province SMANKO athletes, who are still teenagers and are categorized as students with less competition experience, can be a factor in the absence of differences in the characteristics of individual and team sports athletes at Bengkulu Province High School. There are also no differences in psychological characteristics because the subjects in this study are still teenagers and are students (Nopiyanto et al., 2021). At the age of 14-17, in general, an athlete will experience many obstacles in the process of training and competition. So coaches have a dominant role in helping their athletes to get through each of these changes well and providing solutions to the problems faced by their athletes, especially psychological and emotional problems (Nopiyanto et al., 2021). So it is not surprising that the results of this study indicate that there is no significant difference in the psychological characteristics of the athletes at SMANKO Bengkulu Province in terms of individual and team sports.

**Conclusion**

Based on the results of the research and discussion that has been described, it can be concluded that the psychological characteristics of the Bengkulu Province SMANKO athletes in terms of individual sports are mainly in the high category; the psychological characteristics of Bengkulu Province SMANKO athletes in terms of team sports are primarily in the high category; there is no significant difference in the psychological characteristics of SMANKO Bengkulu Province athletes in terms of individual and team sports. Weaknesses in this study are using a small number of samples, so it is suggested to further researchers use a sample with a more significant number. It is suggested that athletes continue to improve their psychological skills towards the very high category, and to the Bengkulu Province SMANKO coaches, it is hoped that they will provide continuous psychological skill training to athletes practicing at Bengkulu Province SMANKO.

**References**


Nopiyanto, Y. E., Raibowo, S., & Prabowo, G. U. (2021). Karakteristik Psikologis atlet pusat pendidikan dan latihan pelajar (pplp) provinsi bengkulu [Psychological characteristics of


