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Psychological characteristics of karate martial and pencak silat athletes special sport class viewed from gender

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Authors’ Contribution: A – Study design; B – Data collection; C – Statistical analysis; D – Manuscript Preparation; E – Funds Collection

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How to site


Abstract

The purpose of this study was to determine the Psychological Characteristics of Karate Martial and Pencak Silat Athletes Special Sport Class Viewed from Gender.

Sports psychology is the study of a person’s behavior in sports and sports activities. One of the sports that requires knowledge of sports psychology in the coaching process is martial arts and karate. The type of research used in this research is quantitative research using surveys. This research is a study used to test hypotheses about the relationship between the psychological characteristics of pencak silat karate athletes and the Special Sports Class of pencak silat in Surakarta in terms of gender. The data analysis technique used Miles and Huberman analysis and independent sample test with the test flow used in this study using SPSS version 23.

The results of data analysis showed that the hypothesis testing of the psychological characteristics of male and female karate martial arts athletes, it is known that the t value is 0.509 with α 0.620 (p less 0.05). While the analysis of hypothesis testing on male and female pencak silat martial arts athletes obtained a t value with α 0.837 (p less 0.05).

The analysis obtained p less 0.05, then hypothesis is accepted. It can be concluded that at a significance level of 0.05 there is no significant difference between the psychological characteristics of male and female karate athletes in the Surakarta Special Sports Class (KKO) in terms of gender.

Keywords

Psychological Characteristics, Karate, Pencak Silat

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Анотація

Алвіані Дьях Рахматі, Сапта Кунта Пурнама, Харіс Нугрохо, Сламет Ріяді. Психологічні характеристики спортсменів спеціального спортивного класу Karate Martial та Pencak Silat з точки зору статі

Метою цього дослідження було визначити психологічні характеристики спортсменів спеціального спортивного класу Karate Martial і Pencak Silat з точки зору статі.

Спортивна психологія вивчає поведінку людини під час спорту та спортивну діяльність. Одним із видів спорту, який потребує знання спортивної психології в тренерському процесі, є бойові мистецтва та карate. У цьому дослідженні використовується кількісне дослідження за допомогою опитувань. Це дослідження використовується для перевірки гіпотез про взаємозв'язок між психологічними характеристиками каратистів пенчак силат і спеціальним спортивним класом пенчак силат у Суракарті з точки зору статі. Техніка аналізу даних використовувала аналіз Майлза та Хубермана та тестування незалежної вибірки з потоком тестування, використаним у цьому дослідженні з використанням SPSS версії 23.

Результати аналізу даних показали, що при перевірці гіпотези психологічних особливостей спортсменів бойових мистецтв карate та спортсменок відомо, що т становить 0,509 при α 0,620 (p менше 0,05). Під час аналізу перевірки гіпотез на спортсменах бойових мистецтв пенчак силат чоловіків і жінок було отримано значення т з α 0,837 (p менше 0,05).

Висновки

На рівні значущості 0,05 немає суттєвої різниці між психологічними характеристиками каратистів-чоловіків і жінок у спеціальному спортивному класі Surakarta (KKO) з точки зору статі.

Ключові слова

Психологічні особливості, Карате, Пенчак Силат
Introduction

Sport is one form of effort to improve human quality directed at the formation of personality and character, discipline and high sportsmanship, and to achieve high achievements [1]. To develop our own sport, we need sports science. Sports science consists of seven basic theoretical areas, namely: sports health, sports biomechanics, sports psychology, sports pedagogy, sociology of sport, history of sport, and philosophy of sport [2]. One of the indispensable sciences is sports psychology. Sports psychology is one of the seven theories that constitute the body of sports science [3]. Sports psychology is the study of a person's behavior in sports and sports activities [4]. One sport that requires sports psychology in the coaching process is martial arts.

Athletes in martial arts engage in physical conflict, which can include a variety of attacking techniques including punching, kicking, and slamming. Strategies and tactics for scoring, attacking, and defending can be used in any martial art. Factors beyond an athlete's control, such as physical, mental, psychological, and spiritual factors, can determine whether or not they reach their full potential in sports achievement [5]. From this description, enthusiasm is one of the factors that affect the performance of an athlete. Coaches believe that no less than 50% of a person's success in sports is determined by mental/psychological.

Sports such as silat and karate require strong psychological characteristics. As a result of the country's tremendous economic growth in recent decades, martial arts emerged as an important component of Indonesian culture [6]. Pencak silat is an element of the personality of the Indonesian nation that is owned by the results of cultivation for generations [7]. There are several aspects, including training, mental state, and physical health, that contribute to an athlete's success in martial arts. Physical fitness is an important component in competitive sports [8]. The psychological characteristics of each athlete seem to have different consequences in each corner of this life. Psychological character is an aspect inherent in athletes and has an influence on the success or performance of athletes [9].

Meanwhile, karate is a type of Japanese martial art. Kara means emptiness in Japanese, and te indicates hand, therefore the two characters that make up the word "karate" are kara and te. Bare hands are represented by two kanji, or karate. Karate refers to a set of techniques from martial arts that can be used for self-defense. Karate is a method of self-defense without weapons or minimally armed [10]. Psychological characteristics in karate athletes that become determining factors and supporting factors to influence their performance [11]. One of the most influential determining factors is the control of anxiety and confidence in karate athletes. Both of these factors must be watched out for so as not to have a negative impact on players when competing.

The importance of knowing the psychological characteristics of athletes is the first way to find out which athletes need guidance on their psychological characteristics when training and competing [12]. Therefore, it is very important to conduct psychological coaching for athletes who have poor psychological character. In this coaching, it is expected to have a positive impact on the athlete himself during training and also benefit the athlete in facing the opponent when competing [13].

In phase In this life, a person has a very important role related to gender. A man and woman in the context of gender have different roles related to behavior, rights and responsibilities, but some studies explain that both are considered equal in society. With the existing problems, it is necessary to foster psychological characteristics that must be carried out in the Special Sports Class of Surakarta City, so that in the future athletes in the Special Sports Class of Surakarta City have good psychological characteristics. So that the training process and achievement goals that will be achieved in a match are fulfilled. The process of coaching psychological characteristics can be done in many ways. Among them by training and instilling athletes to always think positively, setting achievement goals to be achieved, reaction training in training, visualization and imajeri exercises, relaxation exercises and so on.

The results of the study of the psychological characteristics of martial arts athletes in the Special Sports Class and those related to the achievements of martial artists have been lacking. The author believes that there are differences in the psychological character of Sports Special Class athletes between karate and martial arts athletes and their gender. This is what the truth will look for and explain in this study. Knowledge and understanding of the psychological characteristics of athletes related to and supporting in coaching athletes in the Special Sports Class in karate and pencak silat are very important for coaches to know to help the training process and get optimal performance in the competitions that follow.

After a study was conducted on the differences in psychological characteristics of
martial arts athletes in the Special Sports Class of Surakarta City, researchers hope to be a reference/coach data to pay more attention to the psychological character of these athletes. So that athletes who have poor psychological character can receive special coaching from coaches to be more developed and accomplished.

**Materials and Methods**

The type of research used in this study is quantitative research using surveys. This study is a study used to test hypotheses about the relationship between the psychological characteristics of karate pencak silat athletes and the Special Sports Class of pencak silat Surakarta city in terms of gender. This research will be carried out in April-May 2023. At the Special Sports Class Training of Surakarta City, karate and pencak silat sports branches. Namely the Manahan Stadium in Surakarta City, Central Java.

The population used in this study were martial arts athletes karate and pencak silat special sports classes of Surakarta city. The samples in this study were the athletes studied, namely male and female athletes totaling 15 karate athletes in the kumite category and 15 martial arts athletes in the martial arts category.

**Data Analysis techniques** Using analytics *Miles and Huberman* and *Independent Sample Test* with the following test flow: used in this study using SPSS version 23.0. The steps to analyze the data are as follows:

**Data Collection**

The data obtained begins with making observations or direct observations at the place of research. Next, conduct a questionnaire/questionnaire test with informants.

In the statement items present in the questionnaire, each has five alternative options: always, often, sometimes, very rarely, and never. Each answer has its own assessment ranging from positive to very negative. Based on the description above, the author compiles the categories as follows:

- Every positive statement is: always = score-5, often = score-4, sometimes = score-3, very rarely = score-2, and never = score-1.
- Each negative statement is: always = score-1, often = score-2, sometimes = score-3, very rarely = score-4, never = score-5.

To determine the magnitude of the relative frequency (percentage) by the following formula:

\[
p = \frac{f}{n} \times 100\%
\]

**Relative frequency formula**

Information:
- \( P \): Percentage number
- \( F \): The frequency that is being searched for the percentage
- \( N \): Number of frequencies / number of individuals

**Data Reduction**

Data reduction is defined as the selection process, focusing on data simplification, Abstracting from big data transformations that emerge from written records in the field. The reduced data is data obtained from the results of athlete identity and questionnaires/questionnaires.

**Data Presentation**

<table>
<thead>
<tr>
<th>Number</th>
<th>Norm Stretch</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>( X \geq M + 1.5 \text{ SD} )</td>
<td>Very High</td>
</tr>
<tr>
<td>2</td>
<td>( M + 0.5 \text{ SD} \leq X &lt; M + 1.5 \text{ SD} )</td>
<td>Tall</td>
</tr>
<tr>
<td>3</td>
<td>( M - 0.5 \text{ SD} \leq X &lt; M + 0.5 \text{ SD} )</td>
<td>Keep</td>
</tr>
<tr>
<td>4</td>
<td>( M - 1.5 \text{ SD} \leq X &lt; M - 0.5 \text{ SD} )</td>
<td>Low</td>
</tr>
<tr>
<td>5</td>
<td>( X &lt; M - 1.5 \text{ SD} )</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

Information:
- \( X \) = Score
- \( M \) = Mean Calculate
- \( SD \) = Calculated Standard Deviation

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After the data is reduced then the presentation of the data, which is the presentation of a set of systematic information that provides the possibility of drawing conclusions and taking action.

Results

The results of research and discussion presented in this chapter are about the results of research and its interpretation chapter. The results of the study presented were based on descriptive statistical analysis of psychological characteristics using the help of SPSS version 23.0 with a significant level of 5%.

Normality Test

Testing the normality of distribution on samples is carried out to determine whether or not the distribution of existing data is normal. Data normality test is carried out to find out normal or not the data obtained. Normality test used using Shapiro-Wilk, using the following criteria: If the sig value, < 0.05, then Ho is rejected. So that the data comes from abnormally distributed samples; If the value of sig. > 0.05, then Ho is accepted. So that the data comes from normally distributed samples.

The results of the data normality test analysis that has been carried out on karate and pencak silat martial arts athletes in the Special Sports Class of Surakarta City can be seen in the following table (Table 2).

<table>
<thead>
<tr>
<th></th>
<th>Karate</th>
<th>Pencak Silat</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Mean</td>
<td>155.00</td>
<td>157.27</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>8.912</td>
<td>8.388</td>
</tr>
<tr>
<td>Statistics</td>
<td>0.938</td>
<td>0.901</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.360</td>
<td>0.099</td>
</tr>
</tbody>
</table>

Based on the normality test data above, the data of sports special class karate martial arts athletes of Surakarta City obtained results with a mean value of 155,00, a standard deviation value of 8,912, a statistical value of 0,938, and a significant value of 0,360. While the results of the analysis on martial arts pencak silat have a mean value of 157,27, a standard deviation value of 8,388, and a significant value of 0,099. Based on the results of the normality test with SPSS, significant values were obtained of 0,360 in karate and 0,099 in martial arts, where the values of 0,360 > 0,05 and values of 0,099 > 0,05 (P > 0,05). So Ho was accepted, so that the data obtained from karate and pencak silat martial arts athletes Special Sports Class Surakarta City was normally distributed.

Homogeneity Test

The homogeneity test is a test used to find out whether the data is homogeneous or not, because in the difference test (t test) testing requires the data to be homogeneous. Here are the criteria in homogeneity testing:

If the value of sig. < 0,05, then Ho was rejected. So that the data owned is not homogeneous.

If the value of sig. > 0,05, then Ho is accepted. So that the data owned is homogeneous.

Based on the results of the homogeneity test analysis of data for karate and pencak silat martial arts athletes in the Special Sports Class carried out are presented in the table below:

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.439</td>
<td>1</td>
<td>28</td>
<td>0.513</td>
</tr>
</tbody>
</table>

Based on the test table above, it can be known that the significant value of 0,57 > 0,05, so it can be concluded that Ha is accepted, then the data obtained has a homogeneous variance.

Test the hypothesis

Hypothesis II in this study is to identify whether there are differences in the psychological characteristics of karate and pencak silat martial arts athletes Special Sports Class of Surakarta City reviewed based on gender. To find out whether there are differences in psychological characteristics between athletes in karate and pencak silat in terms of gender, they will be tested using different tests using t tests, namely independent sample t-test.

Hypothesis:

Ho: There is no significant difference between the psychological characteristics of male and female karate and martial arts athletes.

Ha: There is a significant difference between the psychological characteristics of karate and
pencak silat athletes in the Special Sports Class of Surakarta City for men and women.

Criterion:
If the significance value > 0.05, then Ho is accepted, then there is no significant difference between karate and pencak silat martial arts athletes Special Sports Class Surakarta City Men and Women.

If the significance value < 0.05, Ho is rejected, then there is a significant difference between the psychological characteristics of karate and pencak silat martial arts athletes Special Sports Class of Surakarta City Men and women.

The output results on SPSS psychological differences between karate and pencak silat athletes Special Sports Class of Surakarta City men and women using the t test obtained the following values (Table 4).

Based on the results of the analysis of the table above, about the hypothesis test of psychological characteristics of male and female karate martial arts athletes, it is known that the value of t count = 0.509 with α = 0.620 (p > 0.05). While the analysis of the hypothesis test on male and female pencak silat martial arts athletes obtained a calculated t value with α = 0.837 (p > 0.05). So that the results of the analysis obtained p > 0.05, then Ho was accepted. So, it can be concluded that at the significance level of 0.05 there is no significant difference between the

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Independent Samples Test</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Karate Sons and Daughters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>11.650</td>
<td>0.005</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>0.532</td>
<td>10.255</td>
</tr>
</tbody>
</table>

Table 4

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Independent Samples Test</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Men's and Women's Pencak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>0.087</td>
<td>0.772</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>0.200</td>
<td>7.145</td>
</tr>
</tbody>
</table>

Table 5

Discussion

In sports events, the psychological characteristics of athletes are one of the main components that must be known and considered as a basis for achieving a desired achievement. In this case, the athlete needs drive, mental strength and intelligence of good quality [14]. Therefore, an athlete must have good personal qualities in the individual, which will affect the behavior of the individual. In addition, sports that have an orientation towards achievement cannot be separated from psychological factors as a supporting factor for achieving achievements [15]. An athlete must possess the psychological and moral characteristics necessary in the sport he is involved in to achieve achievements [16]. Forms of psychological training of athletes can be done by using mental exercises, namely training to think positively, keeping a diary of mental exercises, setting goals to be achieved, relaxation exercises, visualization and imaging exercises,
and concentration exercises [17]. Psychological characteristics include psychological traits that will influence the success of athletes in sports consisting of motivation, confidence, anxiety control, mental preparation and concentration [18]. Before providing psychological characteristic training, the player must know the level of psychological characteristics of the athlete to be trained in the sport [19].

In the Special Class of Sports, according to the observations of researchers, not all have good psychological characteristics, but there are some who have poor psychological characteristics. This is also very noticeable difference between male and female athletes. Where male athletes have more confidence and motivation than female athletes. Female athletes usually have less confidence and courage than male athletes. Female athletes have low control anxiety compared to male athletes. So there is a difference between the psychological character of male and female athletes. Female athletes tend to have many problems with their inherent role conflicts. In addition, women must also balance their roles in society. For example, women are more likely to continue to twist or analyze mistakes more and internalize anxiety compared to men [20].

Sex is the physical/biological difference between men and women [21]. Gender is an inherent trait and behavior of men and women that is socially and culturally shaped [22]. Gender is related to both male and female bodies. Biological differences and biological functions of males and females are not interchangeable between the two, and their functions remain with those of men and women [23]. Opinions about sex differences in premorbid factors, symptoms, course, and outcomes included bald structural differences, birth complications, hormonal, and psychosocial factors [24]. Culture has no influence on a person's gender.

Sex/gender differences in sports. The discussion related to the differences in it, in the field of sports sex differences became an endless conversation. Men and women have equal rights to participate in sport [25]. All women have equal opportunities to gain status in society, but because their abilities and experiences have different levels of impact on the level of status that a woman will get in her participation in sports. Apart from that, the status of women in sports still occupies a portion below men either physically or otherwise.

Conclusion

The difference in the psychological characteristics of karate and pencak silat martial arts athletes in the Special Sports Class of Surakarta City in terms of gender, between male and female athletes there is no significant difference.

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