Vol. 2 No. 3 Edisi Juli 2025 **E.ISSN. 3032-2472**

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

THE EFFECT OF TRAINING USING RUBBER WEIGHTS AND WITHOUT WEIGHTS ON THE SPEED OF PENCAK SILAT PSHT RANTING CRESCENT KICK TANAH PUTIH TANJUNG MELAWAN

PENGARUH LATIHAN MENGGUNAKAN BEBAN KARET DAN TANPA BEBAN TERHADAP KECEPATAN TENDANGAN SABIT PENCAK SILAT PSHT RANTING TANAH PUTIH TANJUNG MELAWAN

Tika Hariyanti [1*], Aref Vai [2], Syahriadi [3],
[1,2,3]Sport Coaching Education Study Program, Departement of Sports Education, Faculty of Teacher Training and Education, University of Riau, Email: [1*] tika.hariyanti4286@student.unri.ac.id [2] aref.vai@lecturer.unri.ac.id [3] syahriadi@lecturer.unri.ac.id

*email Koresponden: tika.hariyanti4286@student.unri.ac.id

DOI: https://doi.org/10.62567/micjo.v2i3.781

Article info:

Submitted: 09/05/25 Accepted: 12/07/25 Published: 30/07/25

Abstract

This study aims to determine the effect of training using rubber weights and with-out weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick. This study is an experimental study using the True experiment design method. The sample in this study was 14 female athletes. The instrument in this study was a 10-second sickle kick speed test with 3 trials and the best value was taken. Data analysis and testing of the research hypothesis used the t-test analysis technique (t-test) with a significance level of $\alpha = 0.05$. The results of the study showed that: (1) there was an increase in the speed of the sickle kick after athletes followed a training program using rubber weights with an average value of 13.71 in the pre-test and increased by 6.72 or 7% to 20.43 in the post-test. The statistical results showed that the sig-2 tailed value was $0.000 \leq 0.05$. (2) there is an increase in the speed of the sickle kick after the athlete follows a training program without rubber weights with an average value of 13.43 in the pre-test increasing by 5% to 18.43 in the post-test. With statistical results showing that the sig-2 tailed value is $0.000 \leq 0.05$. (3) there is an increase in kick speed between training using rubber weights and without weights with a sig-2 tailed value of $0.013 \leq 0.05$. It can be concluded that training using rubber weights is more effective in increasing the speed of the sickle kick compared to training without rubber weights in the Pen-cak Silat PSHT Ranting Tanah Putih Tanjung Melawan.

Keywords: Sickle Kick Speed, Rubber Weight, Without Weight

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh latihan menggunakan beban karet dan tanpa beban terhadap kecepatan tendangan sabit pencak silat PSHT Ranting Tanah Putih Tanjung Melawan. Penelitian ini merupakan penelitian eksperimen dengan menggunakan metode *True experiment design.* Sampel dalam penelitian ini adalah sebanyak 14 orang atlet perempuan. Instrument dalam penelitian ini yaitu tes kecepatan tendangan sabit dalam 10 detik dengan 3 kali percobaan dan diambil nilai terbaik. Analisis data dan pengujian hipotesis penelitian menggunakan teknik analisis Uji t (t-tes) dengan taraf signifikan α = 0,05. Hasil penelitian menunjukkan bahwa: (1) adanya peningkatan kecepatan tendangan sabit setelah atlet mengikuti program latihan menggunakan beban karet dengan nilai rata-rata 13,71 pada *pre-test* dan meningkat sebesar 6,72 atau 7% menjadi 20,43 pada *post test*. Dengan hasil statistik menunjukkan bahwa nilai *sig-2 tailed* 0,000 ≤ 0,05. (2) ada peningkatan kecepatan tendangan sabit setelah atlet mengikuti program latihan tanpa beban karet dengan nilai rata-rata 13,43 pada *pre test* meningkat sebesar 5% menjadi 18,43 pada *post test.* Dengan hasil statistik menunjukkan bahwa nilai *sig-2 tailed* 0,000 ≤ 0,05. (3) ada peningkatan kecepatan tendangan antara latihan dengan menggunakan beban karet dan tanpa beban dengan nilai *sig-2 tailed* 0,013 ≤ 0,05. Dapat disimpulkan latihan menggunakan beban karet lebih efektif untuk meningkatkan kecepatan tendangan sabit dibandingkan latihan tanpa beban karet pencak silat PSHT Ranting Tanah Putih Tanjung Melawan.

Kata Kunci: Kecepatan Tendangan Sabit, Beban Karet, Tanpa Beban

1. INTRODUCTION

Sport is a form of planned and structured physical activity that involves repeated body movements and is intended to improve physical fitness. Sport is part of the basic needs in everyday life because it can increase a person's endurance. Sport can be started from an early age to old age and can be done every day. According to Janpurba in the journal (Husainiyah, 2024), if someone does sports regularly, they will be able to increase their muscle mass, because the exercise can stimulate muscle cells to grow larger and muscle cells that were previously resting will become active again. Sports are grouped based on the number of people involved in them, namely individual sports (athletics, gymnastics, boxing) and team sports (soccer, basketball, volleyball) and grouping based on the characteristics of motor performance demands, namely cyclical, acyclic and combination. Cyclic is an exercise whose movements are repeated, for example swimming. Acyclic is a model of movement that is not repeated, for example pencak silat. Acyclic combination is a combination of cyclic and acyclic, for example long jump (Bompa, 2009).

One of the sports that supports improving physical health and mental (spiritual) conditions is pencak silat. The sport of pencak silat is one of the hereditary cultures that has been developed until now. The teachings of the philosophy of pencak silat are a combination of harmony, reason, will, and awareness of human nature as a creature of God Almighty. In addition, the sport of pencak silat aims to develop organic, neuromuscular, intellectual and emotional abilities as a whole as an integral part of physical education, the sport of pencak silat makes a significant contribution to achieving educational goals in general (Lestari, 2020). Pencak silat is an original Indonesian martial art. Pencak silat is a sport that can be competed in tiered events in Indonesia such as the National Sports Week (PON), Student Sports Week (POMNAS), National Student Sports Olympiad (O2SN), and National Student Sports Week

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

(POPNAS) and has been competed in international events such as the Sea Games, Asian Games and even the world pencak silat championship (Hendro Wardoyo &, 2016).

Pencak silat is a martial art that has various elements, both physically, technically, tactically, and mentally. Physical training is training that aims to improve physical condition, which is an important factor for athletes. Without good physical condition, athletes will not participate in training, let alone compete perfectly. Technical training aims to improve the mastery of motor skills in a sport, such as kicking, catching, throwing, and so on. Tactical training aims to develop and foster the athlete's ability to interpret when carrying out the sport in question. What is trained are game patterns. Mental training is training that emphasizes more on the development of maturity and the athlete's emotions.

Techniques in pencak silat include kicks, punches, blocks, dodges, and falls. Each of these skills has its own function and use. The technique that is often used in pencak silat matches is kicking. Kicking is one of the attack techniques in the sport of pencak silat that has a fairly high value. There are several types of kicking techniques in pencak silat, including: back kick, crescent kick, front kick, side kick/T kick. The majority of silat athletes often use the crescent attack technique as one of the attacks to collect as many points as possible in order to win. In the study (Kusuma et al., 2021) entitled "the effectiveness of kicks used in pencak silat championship matches" from each championship has different effectiveness, in the PORPROV championship match the effectiveness of T kicks was more included with a percentage of (49.43%). The POPNAS Championship the effectiveness of T kicks was more included with a percentage of (41.74%). The PRA PON Championship the effectiveness of crescent kicks was more (41.76%). The PON Championship showed a higher effectiveness of the crescent kick with a percentage of (48.33%). The SEA GAMES Championship showed a higher effectiveness of the crescent kick with a percentage of (50%).

According to (Johansyah, 2014: 39)) A crescent kick is a kick with a semicircular trajectory inward, targeting the entire body, with the back of the sole of the foot or the toes of the foot. This kick can be performed with the foot in front or behind. The advantage of this crescent kick is that it is an effective kick in getting points or scores so that it is practically used for counterattacks after successfully avoiding an opponent's attack. To get a maximum crescent kick, it is necessary to master the correct technique that does not conflict with the anatomy of the body, so that it will produce maximum and more effective kick speed (Nasufi, 2015). In performing a crescent kick, you must have speed so that the kick is not easily caught by the opponent and is not easily dropped by the opponent. Speed is the ability to perform similar movements in succession in the shortest possible time or the ability to cover a distance in a very fast time, (Harsono, 2018-145). (Lungit Wicaksono et al., 2020) said that in the sport of pencak silat, speed is very much needed because with high speed of movement it will be difficult for the opponent to predict where the hands and feet will move, or with high speed the opponent will be slow to do it. In this study, the researcher chose rubber tires as the load used in training to increase kicking speed, and the modified form is in the form of motorcycle inner tubes, each filled with sand with a load weight of 0.5 kg or less at the age of 11 years and under for boys and girls, 0.5-1 kg at the age of 11-16 years for boys and girls, 1-2 kg at the age of 17 years and over for boys and girls according to Simbolon 2016 in (Prawibowo Muhammad, 2021). In this study, the sample was 15-17 years old so the load used was 1 kg.

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Based on observations made by researchers on Pencak Silat Psht, Tanah Putih Tanjung Melawan Branch, many athletes were found to have difficulty in performing crescent kicks quickly. The crescent kicks that were performed were often caught by the opponent without being slammed by the opponent, this happened because the speed of the crescent kick had not been formed due to the training pattern that was still lacking and still not on target. So from the statement above, the researcher tried to provide a training method using a rubber load media weighing 1 kg, as an effort to increase the speed of the crescent kick in Pencak Silat Psht, Tanah Putih Tanjung Melawan Branch.

2. RESEARCH METHODS

The method used in this study is True experiment design. According to (Arikunto, 2020: 125): True experiment is a type of experiment that is considered good because it meets the requirements. What is meant by requirements is the existence of another group that is not subjected to the experiment and also receives observation. With the presence of a comparison group or control group, the effects obtained from the treatment can be known with certainty because they are compared with those who did not receive treatment. In experimental research, there are independent variables and dependent variables. The independent variable is a variable that is systematically manipulated while the dependent variable is a variable that is measured as a result of manipulation of the independent variable. The independent variables in this study are rubber weight training (X1) and without weight (X2), while the dependent variable is the speed of the sickle kick (Y).

The research design used in this study is the control groups pretest-post-test design. Arikunto, (2020: 125) stated that "The control groups pre-test-post-test research design was carried out on the control group and the experimental group, the difference in achievement was seen from the achievement of the experimental group (02 - 01) with the achievement of the control group (04 - 03)". The research design pattern is as follows:

E	O_1	X	O_2
K	O_3	x	O_4

Description:

E : Experimental group

K : Control group

X : Treatment

01 : Pretest in experimental class

02 : Posttest in experimental class

03 : Pretest in control class

04 : Posttest in control class

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Population and sample

According to Arikunto, (2020: 173) "Population is the entire subject of research. If someone wants to research all the elements in the research area, then the research is a population research. The population in this study is female martial artists who actively participate in pencak silat activities, totaling 14 people. The technique used to determine the sample is the saturated sampling technique. Saturated sampling is a sampling determination technique when all members of the population are used as samples. This is often done when the population is relatively small, less than 30 people (Muzanip Arperi 2017: 5).

Data analysis techniques

The data collected from the pre-test and post-test results were analyzed using normality test statistics and t-tests with the following calculation steps:

1. Data normality test

The normality test aims to determine whether the data obtained is normally distributed or not. By using the Shapiro-Wilk test because the data is less than 100, with the following test criteria:

If the significant value (p)> a = 0.05 then it is normally distributed

If the significant value (p) <a = 0.05 then the distribution is not normal.

2. Homogeneity test

The homogeneity test aims to determine whether the data comes from a homogeneous population or not. is declared homogeneous if the sig value> 0.05 and if the sig value is 0.05 then it is declared not homogeneous.

3. t-test

The t-test is a statistical technique used to compare the average of 2 samples and test the hypothesis,

The basis for decision making in the t-test is as follows:

Ha: There is a significant difference between training using weights and without weights on the speed of the PSHT pencak silat crescent kick of the Tanah Putih Tanjung Melawan Branch

H0: There is no significant difference between training using weights and without weights on the speed of the PSHT pencak silat crescent kick of the Tanah Putih Tanjung Melawan Branch

If the Sig. Value> 0.05 then there is no difference in the results.

If the Sig. Value <0.05 then there is a difference in the results.

3. RESULTS AND DISCUSSION

Research Data Description

The description of the research data is a description of everything obtained from the initial test to the final test, based on the explanation and description that has been collected

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

previously. So in this chapter, an analysis will be carried out using SPSS version 22 and a discussion obtained in this study. The results of the study are described in accordance with the objectives of the previously proposed hypothesis.

1. Pretest results using rubber weights

		Preeksperimen
N	Valid	7
	Missing	0
Mean		13.71
Std. Error of Mean		.644
Median		13.00
Mode		13
Std. Deviation		1.704
Variance		2.905
Range		5
Minimum		11
Maximum		16
Sum		96

The results of the study are described using descriptive statistical analysis of 7 athletes, as follows. For the pretest results of training using rubber weights, the lowest score was 11, the highest score was 16, the average (mean) was 13.71, the standard deviation was 1.704, the median was 13.00, the mode was 13, and the variance was 2.905.

Next, the calculation of the interval class with the aim of clarifying data with categories of less, sufficient, good, and very good. For more details, please see the table below.

Preeksperimen

		Frequency	Valid Percent	Category
Valid	11	1	14.3	Quite Less
	13	3	42.9	Less
	15	2	28.6	Less
	16	1	14.3	Sufficient
	Total	7	100.0	

Based on the results of class interval calculations, the range of values obtained was 11, there was 1 person (14.3%) in the very poor category. The score obtained was 13, there were 3 people (42.9%) in the poor category. The score obtained was 15, there were 2 people (28.6%) in the poor category. The score obtained was 16, there was 1 person (14.3%) in the sufficient category. It can be concluded that before being given treatment the athlete was in the very poor to sufficient category.

2. Posttest results using rubber weights

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

		Posteksperimen
N	Valid	7
	Missing	0
Mean		20.43
Std. Error of Mean		.812
Median		21.00
Mode		22
Std. Deviation		2.149
Variance		4.619
Range		6
Minimum		16
Maximum		22
Sum		143

The results of the study are described using descriptive statistical analysis of 7 athletes, as follows. For the pretest results of training using rubber weights, the lowest score was 16, the highest score was 22, the average (mean) was 20.43, the standard deviation was 2.149, the median was 21.00, the mode was 22, and the variance was 4.619.

Furthermore, the calculation of the interval class with the aim of clarifying data with categories of less, enough, good, and very good for more details can be seen in the table below.

		Frequency	Valid Percent	Category
Valid	16	1	14.3	Sufficient
	20	2	28.6	Good
	21	1	14.3	Good
	22	3	42.9	Good
	Total	7	100.0	

Based on the results of class interval calculations, the range of values obtained was 16, there was 1 person (14.3%) in the sufficient category. The score obtained was 20, there were 2 people (28.6%) in the good category. The score obtained is 21, there is 1 person (14.3) in the good category. The score obtained was 22, there were 3 people (42.9%) in the good category. It can be concluded that after being given treatment the athlete is in the good category.

3. Pretest results without load

		Prekontrol
N	Valid	7
	Missing	0
Mean		13.43

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Std. Error of Mean	.649
Median	14.00
Mode	13[a]
Std. Deviation	1.718
Variance	2.952
Range	5
Minimum	10
Maximum	15
Sum	94

The results of the study are described using descriptive statistical analysis of 7 athletes, as follows. For the pretest results of the exercise without weights, the lowest score was 10, the highest score was 15, the average (mean) was 13.43, the standard deviation was 1.718, the median was 14.00, the mode was 13, and the variance was 2.286.

Furthermore, the calculation of the interval class with the aim of clarifying the data with the categories less, enough, good, and very good for more details can be seen in the table below.

Prekontrol

		Frequency	Valid Percent	Category
Valid	10	1	14.3	Quite Less
	13	2	28.6	Less
	14	2	28.6	Less
	15	2	28.6	Less
	Total	7	100.0	

Based on the results of class interval calculations, the range of scores obtained was 10, there was 1 person (14.3%) in the very poor category. The score obtained was 13, there were 2 people (28.6%) in the poor category. The score obtained was 14, there were 2 people (28.6%) in the poor category. The score obtained was 15, there were 2 people (28.6%) in the poor category. It can be concluded that before being given treatment it was in the very poor to poor category.

4. Posttest results without load

		Postkontrol
N	Valid	7
	Missing	0
Mean		18.43
Std. Error of Mean		.571
Median		19.00
Mode		19[a]

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Std. Deviation	1.512
Variance	2.286
Range	4
Minimum	16
Maximum	20
Sum	129

The results of the study are described using descriptive statistical analysis of 7 athletes as follows. For the posttest results of the exercise without weights, the lowest score was 16, the highest score was 20, the average (mean) was 18.43, the standard deviation was 1.512, the median was 19.00, the mode was 19, and the variance was 2.286.

Furthermore, the calculation of the interval class with the aim of clarifying the data with the categories less, enough, good, and very good for more details can be seen in the table below.

Postkontrol

		Frequency	Valid Percent	Category
Valid	16	1	14.3	Sufficient
	17	1	14.3	Sufficient
	18	1	14.3	Sufficient
	19	2	28.6	Good
	20	2	28.6	Good
	Total	7	100.0	

Based on the results of class interval calculations, the range of values obtained was 16, there was 1 person (14.3%) in the sufficient category. The score obtained was 17, there was 1 person (14.3%) in the sufficient category. The score obtained was 18, there was 1 person (14.3%) in the sufficient category. The score obtained was 19, there were 2 people

(28.6%) in the good category. The score obtained was 20, there were 2 people (28.6%) in the good category. It can be concluded that after being given treatment it is in the fair to good category.

Analysis Requirements Testing

The analysis requirements testing is intended to test the initial assumptions that are used as the basis for using the variance analysis technique. The assumption is that the data analyzed is obtained from samples that represent a normally distributed population, and the groups being compared come from a homogeneous population. For this reason, the test used is the normality test. The normality test is carried out using the Shapiro-Wilk test with a significance level of 0.05 with the results of the requirements test as follows.

1. Normality Test Results

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

By using the SPSS 22 application, namely with the Shapiro-Wilk test because the data is less than 100 (Ismail, 2022), with the following normality test criteria:

If the level of significance (p) > α = 0.05, the data is declared normally distributed.

If the level of significance (p) < α = 0.05, the data is declared not normally distributed.

The following are the results of the normality test on the research variables, namely using the load (X1) and without load (X2) on the speed of the sickle kick (Y) Pencak Silat PSHT Ranting Tanah Putih Tanjung Melawan.

	Class	Shapiro-Wilk		
		Statis-tic	Df	Sig.
Crescent kick speed	Pre-test Eksperimen (burden)	.920	7	.468
	Post-test Eksperimen (burden)	.905	7	.361
	Pre-test Kontrol (no burden)	.842	7	.104
	Post-test Kontrol (no burden)	.915	7	.432

Based on the results of the normality test using the Shapiro-Wilk test, it shows that the sig value of the experimental pre-test is 0.468 ≥ 0.05, the post-test value of the experimental 0.361 ≥ 0.05, the pre-test value of the control 0.104 ≥ 0.05 and the sig value of the post-test control 0.432 ≥ 0.05. So it can be concluded that the entire data is normally distributed because ≥ 0.05.

2. Homogeneity Test Results

The homogeneity test aims to determine whether the data is homogeneous or not. In this sample, it is declared homogeneous if the sig value based on mean> 0.05. For more details, see the following table.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
crescent kick speed result	Based on Mean	.229	1	12	.641
	Based on Median	.152	1	12	.704
	Based on Median and with adjusted df	.152	1	10.399	.705

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

	Based on trimmed mean	.194	1	12	.667

Based on the table above, the sig value based on mean is 0.641>0.05, so it can be concluded that the variance of the post-test data of the experimental class and the post-test of the control class are the same or homogeneous. Thus, one of the requirements (not absolute) of the independent t-test has been met.

3. T-Test Results

The t-test is a statistical technique used to compare the average of 2 samples and test the hypothesis. The hypotheses in this study are as follows:

There is a significant effect of training using rubber weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick.

There is a significant effect of training without weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick.

There is a significant difference in the effect between training using rubber weights and without weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick.

The basis for decision making in the t-test is as follows:

Ha: There is a significant difference between training using weights and without weights on the speed of the PSHT pencak silat sickle kick of the Tanah Putih Tanjung Melawan Branch

H0: There is no significant difference between training using weights and without weights on the speed of the PSHT pencak silat sickle kick of the Tanah Putih Tanjung Melawan Branch

If the Sig. Value > 0.05 then there is no difference in the results.

If the Sig. Value < 0.05 then there is a difference in the results.

Hypothesis One

There is a significant effect of training using rubber weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat crescent kick. For more details, see the following table.

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Pair 1	before treatment - after treatment (load)	6.714	.951	.360	7.594	5.835	18.676	6	.000

Based on the table above, the 2-tailed sig value of 0.000 ≤ 0.05 means that there is a difference in the results, namely that there is an effect of training using rubber weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick.

Hypothesis Two

There is a significant effect of non-weight training on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat crescent kick. For more details, see the following table.

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	before being given treatment - after being given treatment (without load)	5.000	1.155	.436	6.068	3.932	11.456	6	.000

Based on the table above, the 2-tailed sig value of 0.000 ≤ 0.05 means that there is a difference in the results, namely that there is an effect of weightless training on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick.

Hypothesis Three

There is a significant difference in the influence between training using rubber weights and without weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat crescent kick. For more details, see the following table.

	Paired Differences			

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	using weights – no weights	2.000	1.528	.577	.587	3.413	3.464	6	.013

Based on the table above, the 2-tailed sig value of 0.013 ≤ 0.05 means that there is a difference in the results, namely that there is an effect of training using rubber weights and without weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick.

Discussion

Based on the results of the study conducted during 14 meetings, the average kick speed of PSHT athletes from the Tanah Putih Tanjung branch against the experimental group was 6 children in the good category, and 1 child in the sufficient category. This was because the child was in poor health, poor physical condition and lack of control from the researcher. In the control group, there were 4 children in the good category and 3 children in the sufficient category.

The individual increase in athletes averaged 6 points and the lowest increase was 3 points. The factors causing the small increase in sickle kicks were due to several factors such as the sample being less serious when carrying out the training program, the physical condition of the sample being poorly maintained, fatigue and boredom factors in doing the training, the internal burden of body weight that exceeded so that it slightly inhibited movement

Before the next step, the normality test is carried out, therefore the normality test used in this study with Shapiro-Wilk because the data is less than 100. In table 4.3. The sig value ≥ 0.05, it can be concluded that the data in this study is normally distributed. After the normality test is carried out, the next homogeneity test is where this homogeneity test aims to determine whether the data is homogeneous or not. In this sample, it is stated as homogeneous if the sig value based on mean> 0.05. In table 4.4, the sig value based on mean is 0.641> 0.05, so it can be concluded that the variance of the post-test data for the experimental class and the post-test for the control class is the same or homogeneous. Thus, one of the requirements (not absolute) of the independent t-test has been met.

After the requirement test is fulfilled, a t-test is conducted to test the research hypothesis. The basis for decision making in the t-test is as follows: if the significance value (Sig) is greater than 0.05, then there is no difference in the results and the Null Hypothesis is accepted; conversely, if the significance value is less than 0.05, then there is a difference in the

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

results and the Alternative Hypothesis is accepted. The hypotheses in this study are as follows: 1.) There is an effect of training using rubber weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick. The answer to hypothesis 1 is in table 4.5 where the sig value (2-tailed) 0.000 ≤ 0.05 means that there is a difference in the results and the Alternative Hypothesis is accepted. 2.) There is an effect of training without weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick. The answer to hypothesis 2 is in table 4.6 where the sig value (2-tailed) is 0.000 ≤ 0.05, so there is a difference in results and the Alternative Hypothesis is accepted. The increase in training results without weights is because in this group the researcher also provides a training program according to the needs of each athlete, then their seriousness in carrying out the training program, and after the training program the researcher provides samples also practice techniques with the coach. 3.) There is a significant difference in the influence between training using rubber weights and without weights on the speed of the PSHT Tanah Putih Tanjung Melawan pencak silat sickle kick. The answer to hypothesis 3 is in table 4.7 the sig value (2-tailed) is 0.013 ≤ 0.05, so there is a difference in results and the Alternative Hypothesis is accepted.

Based on the explanation above, it can be seen that there is an effect of training using weights and without weights on the speed of the sickle kick. However, there were 4 athletes at the time of the final test who got scores that were in the sufficient category. This can be concluded to have an effect but not significant. It can be explained that to achieve maximum results, a training program is needed that is in accordance with the needs of each athlete, routine and regular training.

4. CONCLUSION

Based on the data analysis and discussion that has been presented, it can be concluded that there is an effect of training using rubber weights on the speed of the sickle kick of the Psht white soil branch of Tanjung Perang with a sig value of 0.000 ≤ 0.05. There is an effect of training without weights on the speed of the sickle kick of the Psht white soil branch of Tanjung Perang with a sig value of 0.000 ≤ 0.05. There is a difference in the effect of training between training using rubber weights and without weights on the speed of the sickle kick of the Psht white soil branch of Tanjung Perang with a sig value of 0.013 < 0.05.

Thus, it can be recommended that training using weights is more suitable to be applied in improving the ability of sickle kicks in pencak silat because the average increase is greater than without weights.

5. REFERENCES

Arikunto, S. (2020). *prosedur penelitian suatu pendekatan praktik*. rineka cipta.

Bompa, T. o. (2009). *Peridization Theory and Methodologi Of Training*.

Hendro Wardoyo &, J. L. (2016). *Pencak Silat*. rajawali sport.

Husainiyah, S. Z. (2024). Analisis Konsumsi Kafein Sebelum Latihan Olahraga. *Widya Kesehatan*, *6*(1), 29–39.

Multidisciplinary Indonesian Center Journal (MICJO)
Journal page is available to
https://e-jurnal.jurnalcenter.com/index.php/micjo
Email: admin@jurnalcenter.com

Kusuma, I. P. H., Purnomo, E., & Supriatna, E. (2021). Efektivitas Tendangan Yang Digunakan Dalam Pertandingan Kejuaraan Pencak Silat. *Jurnal Pendidikan dan…*.

Lestari, A. (2020). *Pengaruh Latihan Kombinasi Zig-zag Run Teknik dan Karet Ban Dalam Terhadap Kecepatan Tendangan Sabit Pada Atlet Pencaksilat BKMF FIK UNM*.

Lungit Wicaksono, Totok Sardianto, & Dimas Duta Putra Utama. (2020). Pengaruh Latihan Pencak Silat Menggunakan Beban Dempel Terhadap Kecepatan Tendangan Depan Pesilat Di Padepokan Psht Cabang Lampung Barat. *Jurnal Kejaora (Kesehatan Jasmani Dan Olah Raga)*, *5*(2), 47–52.

Nasufi, M. (2015). Hubungan Kelentukan Dengan Kemampuan KecepatanTendangan Sabit Pada Atlet Pencak Silat BinaanDispora Aceh (Pplp Dan Diklat) Tahun 2015. *Jurnal Ilmu Keolahragaan*, *14*(1), 35–46.

PRAWIBOWO MUHAMMAD. (2021). *PENGARUH LATIHAN MAWASHI GERI DENGAN BEBAN TERHADAP KECEPATAN TENDANGAN MAWASHI GERI PADA ATLET KUMITE KARATE JUNIOR PUTERA DOJO TAKO ROKAN HULU*.