



Pengaruh Latihan *Plyometric* terhadap Kecepatan Tendangan Sabit pada Peserta Ekstrakurikuler Pencak Silat di SMP Negeri 1 Pancalang Kabupaten Kuningan

Dani Nurdiansyah

STKIP Muhammadiyah Kuningan, Kuningan

Didi Muhtarom

STKIP Muhammadiyah Kuningan, Kuningan

Erdin Waluyo

STKIP Muhammadiyah Kuningan, Kuningan

Abstract. The purpose of this study was to determine the effect of training using Plyometric on sickle kick speed in pencak silat extracurricular participants at Smp Negeri 1 Pancalang, Kuningan Regency. This research uses a quantitative approach. The research method used is experimental research. The population used was extracurricular pencak silat participants at SMP Negeri 1 Pancalang, totaling 30 students. The sample used in this study was 15 students. VIII grade students as many as 4 students and VII grade as many as 11 students. The sampling technique in this study used purposive sampling technique which is included in non-probability sampling. This study uses an experimental method using the "One Group Pretest-Posttest Design" design. The results of the study are described using descriptive statistical analysis as follows, for pretest results, the average (mean) = 18.8, with a standard deviation (std. Deviation) = 2.27408, while for posttest, the average (mean) = 21.5, with a standard deviation (std. Deviation) = 2.06559. Based on the t test analysis conducted, it can be seen that there is a significant effect of the Plyometric training program on improving sickle kick skills, which can be seen from the calculated t value of 9.282 which is greater than the t table value of 2.160 ($9.282 > 2.160$) and a significance value of 0.000 < 0.05 , so there is a significant influence on extracurricular pencak silat participants of SMPN 1 Pancalang.

Keywords: Plyometric, speed, sickle kick, and pencak silat

INTRODUCTION

The Pencak Silat tradition was designated by UNESCO as an Intangible Cultural Heritage at the 14th Session of the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage, which took place in Bogota, Colombia, December 9-14, 2019. At the session, there were 42 nominations for inscription as Intangible Cultural Heritage, including the Pencak Silat tradition from Indonesia (UNESCO, 2020). UNESCO recognizes that Pencak Silat has become the identity and unifier of the Indonesian nation. The Pencak Silat tradition contains values of friendship, mutual respect and promotes social cohesion. Therefore, UNESCO considers that the Pencak Silat tradition can be adopted and developed well in various regions in Indonesia.

Pencak silat is an original Indonesian martial sport inherited by the ancestors of the Indonesian people, pencak silat can be demonstrated individually (single), in pairs (double) or groups (team). Because pencak silat was born from the culture of the Indonesian people, its development was influenced by the behavior, enthusiasm and abilities of the people in their

respective regions. Pencak silat is a martial arts system inherited by ancestors as the culture of the Indonesian people so that it needs to be preserved, fostered, and developed (Kriswanto, 2015) In the large dictionary of the Indonesian language, the term pencak means a game of skill in self-defense with the skill of deflecting attack and self-defense, both with weapons and without weapons.

Pencak silat in its current development has many enthusiasts from all walks of life, starting from children who have been included in existing pencak silat schools. In addition to seeking achievements, pencak silat also provides martial arts provisions or protect themselves from the harshness of life, especially when crimes such as robbery, kidnapping, theft and harassment of women often occur, those who learn martial arts can at least fight back when they are threatened. Schools have now been entered by pencak silat schools to recruit members and as a cultural preservation effort.

To master pencak silat martial arts we must master the basic techniques in pencak silat. The basic movement of pencak silat is a planned, directed, coordinated and controlled movement, which has four aspects as a unit, namely mental spiritual aspects, artistic aspects, martial aspects, and sports aspects (Kriswanto, 2015). Thus, pencak silat is a fairly complete sport to learn because it has four aspects which are a whole and cannot be separated. The basic movements of pencak silat include stance, punches, kicks, evasions, catches, scissors and falls, these basic techniques must be mastered by a fighter in order to perform movements properly. Therefore, these basic movements must be trained frequently so that they can master the basic techniques perfectly.

The development of physical condition or physical ability through training is the basis or requirement in achieving optimal performance. The elements of regular, intensive and continuous physical exercise in order to be optimal when competing, as for the elements of physical conditions that support are Endurance (Endurance) Strength (Strength), Flexibility (Flexibility), Power, Speed (Speed), and Agility (Agility).

In pencak silat, speed in motion is needed, especially in the sickle kick or side kick movement. The crescent kick is a kick whose trajectory is half a circle into what forms like a crescent moon in the direction of its movement, with the direction of the target throughout the body and usually in the match the target is the stomach.

The success in the implementation of the basic sickle kick technique in pencak silat cannot be separated from the training model used. The process of achieving the goal of how the training model affects the speed of the sickle kick in pencak silat. The author also made observations during pencak silat training sessions. Students often make basic mistakes when

performing the sickle kick technique. When doing a sickle kick, I still see many students who do not shift their feet when kicking so that when dealing with an opponent or kicking it can be easily caught. The coach also plays a very important role in the achievement of his students' pencak silat achievements. Through a regular training program will improve achievement. However, the coach in the pencak silat extracurricular at SMP Negeri 1 Pancalang has not been maximized. In every activity or exercise the teacher only focuses on the sacred art movements, there is no training that leads to the improvement of pencak silat sickle kick techniques. The introduction and training of basic sickle kick techniques will certainly greatly help students in facing opponents. In addition, the coach must evaluate the kicking skills of his students, as a reference to form the character of fighters at SMP Negeri 1 Pancalang who are tough in participating in pencak silat championships.

In carrying out the training process, the coach should use interesting training methods so that students are not easily bored in participating in training, so that interesting exercises are created. Plyometric means exercises characterized by powerful muscle contractions in response to speed, load, dynamic or muscle range. Plyometric training is an exercise program used to develop strength and speed for pugilists.

RESEARCH METHOD

This research uses a quantitative approach. Quantitative research is a study where data is in the form of numbers and analysis using statistics (Sugiyono, 2014). The research method used is experimental research. As explained by Ali Maksum (2012, p. 65) experimental research is research that is carried out strictly to determine the causal relationship between variables. The main characteristic of experimental research is treatment.

The research design used in this study is a one group pretest-posttest design, which is a research design that has a pretest before being given treatment and a posttest after being given treatment, so that it can be known with certainty the difference in results due to the treatment given (Maksum, 2012). The groups in this study were given a pretest and posttest. The group was given treatment (treatment) Plyometric exercise. The sample used in this study was 15 students. VIII grade students as many as 4 students and VII grade as many as 11 students. The sampling technique in this study used purposive sampling technique which is included in non-probability sampling. According to Maksum (2012, p. 60) purposive sampling is a sampling technique whose characteristics or characteristics are known in advance based on the characteristics or characteristics of the population. The procedure for implementing the crescent kick speed test according to Johansyah Lubis (Lubis, 2004) athletes stand behind the

target kick with one fulcrum foot behind the line as far as 50 cm (women), 60 cm (men), at the signal "Yes", the athlete kicks with the right from behind towards the target and returns to the crew position by touching the floor behind the line, then continues the kick with the right foot as fast as possible for 10 seconds, the implementation is done 3 times the opportunity and the best value is taken. Data analysis techniques

The data analysis techniques used were normality test, homogeneity test homogeneity test and hypothesis testing.

The data analysis technique used in this

This research is a t test the steps are as follows:

1. Normality Test
2. Homogeneity Test
3. Hypothesis Test

FINDINGS AND DISCUSSION

This research was conducted 14 times with a frequency of 3 times a week conducted for 4 weeks at SMP Negeri 1 Pancalang Kab. Kuningan. The implementation of the research every Monday, Thursday, Saturday at 15.00-17.00 WIB, the research subjects were pencak silat extracurricular participants at SMP Negeri 1 Pancalang Kab. Kuningan which amounted to 15 people. This research was conducted on June 19 - July 17, 2023.

Findings

The results of descriptive statistical analysis of pretest and posttest skills of sickle kick speed on pencak silat extracurricular participants at SMP Negeri 1 Pancalang Kab. Kuningan as follows:

Table 1. Deskriptif Statistik *pretest* and *posttest*

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
Pretest	15	15.00	23.00	18.8	2.27408
Posttest	15	18.00	26.00	21.5	2.06559
Valid (listwise)	15				

Testing the normality of data distribution using Shapiro-Wilk with the help of SPSS 25 with pretest and posttest results, all significance values have a value > 0.05 , it can be concluded that the data is normally distributed. Based on the results of the homogeneity test output by using Levene Statistic using SPSS 25 shows that the output of pretest and posttest values of the

application of plyometric training on speed crescent kick pencak silat, all significant values are greater than 0.05. all significant values are greater than 0.05, then it can be concluded that the data is homogeneous or the same.

Discussion

To master pencak silat martial arts we must master the basic techniques in pencak silat. Pencak silat basic movement is a planned, directed, coordinated and controlled movement, which has four aspects as a unit, namely mental spiritual aspects, artistic aspects, martial aspects, and sports aspects (Kriswanto, 2015). Thus, pencak silat is a fairly complete sport to learn because it has four aspects which are a whole and cannot be separated. The basic movements of pencak silat include stances, punches, kicks, evasions, stances, scissors and falls, these basic techniques must be mastered by a fighter in order to perform movements properly. Therefore, these basic movements must be trained frequently so that they can master the basic techniques perfectly.

In pencak silat speed in motion is needed especially in the crescent kick or side kick movement. The crescent kick is a kick whose trajectory is half a circle into what forms like a crescent moon in the direction of its movement, with the direction of the target throughout the body and usually in the match the target is the stomach.

To increase the speed of the crescent kick in pencak silat, it must be practiced frequently in order to achieve the goal of success. Kicking is one of the basic movements that has high value and is a movement that is often used when competing.

Students often make basic mistakes when performing the sickle kick technique. When doing a sickle kick, I still see many students who do not shift their feet when kicking so that when dealing with an opponent or kicking it can be easily caught.

Judging from the above problems, it is necessary to find a form of exercise that can improve the ability to perform sickle kicks. that plyometric exercise is a form of explosive power training with the characteristics of using very strong and fast muscle contractions, namely muscles always contract both when extending (eccentric) and when shortening (concentric) in a fast time which is useful for increasing muscle nerve reactions, explosiveness, speed and the ability to generate force (power) in a certain direction. Pliometric exercises show the full power characteristics of muscle contraction with a very fast response, dynamic loading or very complicated muscle stretching (Radcliffe & Farentinous, 1985). This exercise program lasted for 12 treatment meetings plus two meetings for the initial test and final test, so the total number amounted to 14 meetings. With a frequency of 3 times a week, namely Monday, Thursday, and Saturday. This is in accordance with what is stated by Mylsidayu & Kurniawan (2015, p. 50) that training improvement occurs significantly when at least training 3 times a week and for 4 weeks or 1 month. Pretest was held on

June 12, 2023 and Post-test was held on July 13, 2023 at the SMPN 1 Pancalang field. Penelitian dilaksanakan sebanyak 14 kali pertemuan dengan pemberian perlakuan (treatment) dilaksanakan sebanyak 3 kali pertemuan dalam satu minggu. This study aims to determine the effect of the application of plyometric training on sickle kick speed in pencak silat extracurricular participants at SMPN 1 Pancalang Kab. Kuningan. Based on the analysis of research data, the results obtained results which show that the output of the T Test results T (Paired Sample T-Test) above, can be seen the value of t count 9.282 and t table 2.160 (df13) with a sig p value of 0.000. Therefore, if the t value is greater than the t table, there is a significant effect. So the value of t count > t table (9.282 > 2.160) and significance p 0.000 < 0.05 then there is a significant influence. Thus the hypothesis (Ho) is rejected and the hypothesis (Ha) is accepted. So it can be concluded that there is an effect of Plyometric training on sickle kick speed on extracurricular pencak silat participants at SMPN 1 Pancalang Kab. Kuningan.

CONCLUSION

Based on the analysis of research data, obtained The results show that the output of the test results T (paired sample t-test) above, can be seen The calculated t value is 9.282 and t table is 2.160 (df13) With a sig p value of 0.000. Therefore, if the t value is greater than the t table, there is a significant effect. So the value of t count > t table (9.282 > 2.160) and significance p 0.000 < 0.05 then there is a significant influence. Thus the hypothesis (ho) is rejected and the hypothesis (ha) is accepted. So it can be concluded that there is an effect of plyometric training on sickle kick speed on extracurricular pencak silat participants at smpn 1 pancalang kab. Kuningan.

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REFERENCES

- kriswanto, e. s. (2015). *Pencak Silat*. Yogyakarta: Pustakabarupress.
- Astitah, A. (2020). pola pembinaan karakter melalui ekstrakurikuler peserta didik di SMA Muhammadiyah 1 Makassar. *JURNAL PILAR*, 136.
- Candra, J. (2021). *Pencak Silat*. Yogyakarta: CV Budi Utama.
- Harsono. (2015). *Kepelatihan Olahraga*. Bandung: PT REMAJA ROSDAKARYA.
- Kriswanto, E. S. (2015). *Pencak Silat*. Yogyakarta: PUSTAKABARUPRESS.
- Muhajir. (2016). *Pendidikan Jasmani Olahraga dan Rekreasi SMP/Mts Kelas VII*. Jakarta: Pusat Kurikulum dan Perbukuan, Balitbang, Kemdikbud.
- Mylsidayu, A., & Kurniawan, F. (2015). *Ilmu Kepelatihan Dasar*. Bandung: alfabeta cv.
- Soekarman. (1987). *Dasar Olahraga Untuk Pembina, Pelatih dan Anggita*. Jakarta: Inti indayu Press.
- Yulidasari, R., Winarno, & Januarto, O. B. (2015). Variasi Latihan Teknik Shooting Bolabasket Siswa Peserta Ekstrakurikuler di SMPN 22 Malang. *Pendidikan Jasmani*, 25, 3.
- kriswanto, e. s. (2015). *Pencak Silat*. Yogyakarta: Pustakabarupress.
- Astitah, A. (2020). pola pembinaan karakter melalui ekstrakurikuler peserta didik di SMA Muhammadiyah 1 Makassar. *JURNAL PILAR*, 136.
- Candra, J. (2021). *Pencak Silat*. Yogyakarta: CV Budi Utama.
- Harsono. (2015). *Kepelatihan Olahraga*. Bandung: PT REMAJA ROSDAKARYA.
- Kriswanto, E. S. (2015). *Pencak Silat*. Yogyakarta: PUSTAKABARUPRESS.
- Muhajir. (2016). *Pendidikan Jasmani Olahraga dan Rekreasi SMP/Mts Kelas VII*. Jakarta: Pusat Kurikulum dan Perbukuan, Balitbang, Kemdikbud.
- Mylsidayu, A., & Kurniawan, F. (2015). *Ilmu Kepelatihan Dasar*. Bandung: ALFABETA.
- Soekarman. (1987). *Dasar Olahraga Untuk Pembina, Pelatih dan Anggita*. Jakarta: Inti indayu Press.
- Yulidasari, R., Winarno, & Januarto, O. B. (2015). Variasi Latihan Teknik Shooting Bolabasket Siswa Peserta Ekstrakurikuler di SMPN 22 Malang. *Pendidikan Jasmani*, 25, 3.

- Lubis, J. (2004). *Panduan Praktis Pencak Silat*. Jakarta: RajaGrafindo Persada.
- Maksum, A. (2012). *Metode Penelitian Dalam Olahraga*. Surabaya: Unesa University Press.
- Mylsidayu, A., & Kurniawan, F. (2015). *Ilmu Kepeleatihan Dasar*. Bandung: alfabeta cv.
- Yusuf, F. (2018). Uji validitas dan reliabilitas instrumen penelitian kuantitatif. *Jurnal Ilmiah Kependidikan* , 7, 17-23.
- Chu, D. A. (1998). *Jumping Into Plyometrics*. Human Kinetics.
- H Furqon, & Doewes, M. (2002). Pliometrik Untuk meningkatkan power. *Surakarta: Program Pasca Sarjana Universitas Sebelas Maret*.
- Radcliffe, J. C., & Farentinous, R. C. (1985). *Plyometrics: Explosive Power Training*. University of Virginia: Human Kinetics Publishers.
- UNESCO, K. (2020, FEBRUARI 21). <https://kwriu.kemdikbud.go.id/berita/pencak-silat-ditetapkan-unesco-sebagai-warisan-budaya-tak-benda/>. Retrieved JUNI 08, 2023, from kwri kemdikbud: <https://kwriu.kemdikbud.go.id/berita/pencak-silat-ditetapkan-unesco-sebagai-warisan-budaya-tak-benda/>