IMPROVING GUNTINGAN SKILLS BY USING SIMPLE TRAINING TOOLS

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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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Abstract

Study purpose. The purpose of this study was to determine the effect of training using simple training tools, namely rubber band, ropes and foam sticks, on the Guntingan skills of Pencak Silat athletes.

Materials and methods. This study used an experimental method with a pretest-posttest control group design. In this design there were two sample groups, namely the experimental simple training tools group and the simple guntingan skills training group. 60 athletes from Betako Merpati Putih PPS Pencak Silat School at MA Al-Khairiyah Jakarta participated in this study, devided into two groups where the experimental group included 30 students and the control group included 30 students. This study used a waist guntingan test instrument which consists of 26 aspects of assessment that were validated by 3 experts in Pencak Silat.

Results. There are significant differences in the participants’ test results before and after they were given training using simple tools and traditional training to improve guntingan skills, but there is a difference in the effect of each of the guntingan skill trainings in the two groups. The training using simple training tools has better effect on the guntingan skills than the traditional training method.

Conclusions. Unconventional training tools are effective to be used in Pencak Silat guntingan skills training. The improvement of athletes in performing guntingan skills shows that simple training tools can be used for Pencak Silat skills, or skills in other martial arts and sports.

Keywords: guntingan, pencak silat, training tools.

Introduction

Student Pencak Silat championships which are held in various events and schools can increase the number of participating athletes, so that excellent and potential athletes will emerge. The existence of Pencak Silat in schools helps the development of potential or talented Pencak Silat athletes in Indonesia. Pencak Silat, as one of the indigenous martial art of Indonesia (Kasmandana et al., 2019), has been introduced in high school, where students are taught various basic techniques of Pencak Silat (Sin & Ihsan, 2020). Basic technique is a system or way of doing a fundamental movement. Basic techniques have a very big role in forming other special techniques because basic techniques are the initial foundation. Forming reliable and skillful athletes requires good basic techniques, which must be done correctly, so that there are no continuous errors in developing advance techniques (Widiastuti et al., 2019). There are various Pencak Silat techniques that must be mastered by athletes. The techniques consist of three basic techniques, namely attack, defense and bottom techniques. Of the three basic techniques, the bottom technique is the basic technique of Pencak Silat which is considered very important for athletes to master. According to (Listiana & Isdaryono, 2019), the bottom technique of pencak silat is considered quite effective and efficient to be executed because in the process of implementing the motion, the bottom technique is
the basic technique of pencak silat which is carried out by interfiring the balance position of the opponent. Guntinggan is one of Pencak Silat techniques which drops an opponent by clamping the legs on target’s neck, waist, or legs so that the opponent falls (Setyo Kriswanto, 2015). This cutting technique name refers to the final shape, which when viewed from the front, where 2 crossed cutting legs resemble the shape of a pair of scissors, in an oblique position resting on both hands (Babang et al., 2020; Ihsan, 2018). In a competition, the type of guntinggan technique that usually used is the flying guntinggan with the opponent’s waist as the target.

There are 4 stages in the motion of the waist clipping, which are:

Fig. 1. Guntinggan Stage (Lubis & Wardoyo, 2016): (1) Initial position, (2) preparatory position, (3) execution position, (4) final position

(1) Initial position : The basic stance is the initial stance taken by an athlete that prepares to attack or defense. The basic stance is divided into two, namely open and close stance. The open stance is a basic stance with the position of the hands and arms not covering the body, while the close stance is a basic stance with the position of the hands and arms protecting the body. Open stance is the initial position which usually used in applying guntinggan technique. (2) Preparatory position in this position, hands are used as the support for body weight. This is performed in order to make athletes comfortable in executing guntinggan techniques. Both hands are placed in front of the feet to have an explosive start when executing jumping motion of guntinggan technique. (3) Execution position : In this position, athlete clamps down on the opponent’s waist. Athlete’s knees and legs clamp towards the opponent’s waist so that the guntinggan that is made really sticks to the target. When performing the guntinggan technique, the fighter pins the opponent in the direction of the waist or groin so that the focused energy will be greater and more impactful. (4) Final guntinggan position is a follow through from the execution position, whether the guntinggan is successful or not. This position is also useful for shifting the center of gravity of the opponent, so that the opponent’s balance is messed and the opponent falls more easily.

Effective training requires good planning, and the media that will be used in the training also requires good planning. Using the right training tools or other media can support improving athletes’ skills and performance (Swandana et al., 2021; Wijayanti et al., 2021). Therefore, the selection of training tools must be in accordance with athlete needs so that it can achieve the expected goals. This study aims to determine the improvement of Pencak Silat guntinggan skills using simple training tools, namely rubber band, ropes and foam sticks. These training tools are cheap or even free, waste and recyclable, tools.

Materials and Methods

Study participants

60 athletes from Betako Merpati Putih PPS Pencak Silat School at MA Al-Khairiyah Jakarta were participated in this study, devided in to 30 students on experimental group and 30 on control group.

Study organization

The method used in this study was an experimental method with a pretest-posttest control group design. In this design there were two sample groups, namely the experimental simple training tools group and the simple guntinggan skills training group.

The research was carried out for 2 months, a total of 18 training sessions, with training frequency of 3 times a week. The experiment group used simple tools (rubber tire wastes, ropes, and foam sticks) as the training aid, while the control group used traditional guntinggan skills training methods.

Rubber tire wastes were used as performance enhancement tools, similar to training rubber bands, which came from used rubber tires. The rubber tires were cut and then modified so that can later be used for training aids. Other training tools used in this study are ropes (Samsudin et al., 2021). The ropes in this study were useful for basic stance trainings, so that the basic stance produced can be maximized and achieve the perfect shape. One of the tools that usually used in martial art trainings is sandbag. Sandbag is one of the training equipment which used as a target for martial arts athletes to train their kick and punch (Taufik et al., 2021). Instead of sandbag, foam sticks were used as the training target in this study, because foam sticks are elastic, easy to obtain, and affordable.

Before and after the trainings, athletes perform right and left waist guntinggan skills as the pre-test and post test. This study used a waist guntinggan test instrument which consists of 26 aspects of assessment that have been validated by 3 Pencak Silat experts.

Statistical analysis

The statistical analysis technique used the Statistical Package for Social Science (SPSS) version 21 software. The used the Shapiro-Wilk test, the Paired Sample T-Test with significance level (p ≤ 0.05). All data displayed Mean ± Standard Deviation (SD)

Results

The description of the data is a general description of each variable as a support in the following discussion. Through this general description, the initial conditions and after the treatment of the variables studied will emerge. The data of the waist guntinggan skills were obtained from the results of the waist guntinggan test instrument which consists of 26 aspects of assessment.

The data was collected from the results of the pre-test and post-test with 2 different groups (experimental group and control group) before and after the training process using simple training tools and traditional training methods. The summary of the data description of the improvement of waist cutting skills can be seen in Table 1.

The next step is to test the similarity of the two averages (one side). This was done to determine the effect of the training using simple training tools and traditional training on the guntinggan skills. The results of the significance test can be seen in Tables 2 and 3.
Table 1. General description of waist guntingan skills pre-test and post-test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>SD</th>
<th>SE Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre_test_1</td>
<td>4083.20</td>
<td>30</td>
<td>395.216</td>
<td>72.156</td>
</tr>
<tr>
<td>Post_test_1</td>
<td>6123.53</td>
<td>30</td>
<td>1064.712</td>
<td>194.389</td>
</tr>
<tr>
<td>Pair 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre_test_2</td>
<td>3927.33</td>
<td>30</td>
<td>468.864</td>
<td>85.603</td>
</tr>
<tr>
<td>Post_test_2</td>
<td>4148.40</td>
<td>30</td>
<td>366.751</td>
<td>66.959</td>
</tr>
</tbody>
</table>

Table 2. Paired Sample T Test of Training using Simple Training Tools and Traditional Training On Guntingan Skills Improvement

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>30</td>
<td>0.997</td>
<td>0.000</td>
</tr>
<tr>
<td>Group 2</td>
<td>30</td>
<td>0.214</td>
<td>0.000</td>
</tr>
</tbody>
</table>

From the results of the paired sample t test calculation, it was obtained that the value of 0.00 < 0.05 of experiment group and 0.00 < 0.05 of the control group, which means that there are significant differences before and after being given training using simple tools and traditional training to improve guntingan skills.

From the calculation results in Table 3, it was obtained from the experiment group was -10.167 while the control group was -2.285. This shows that the T_count value of the experiment group is greater than T_Sig or is outside the Ho acceptance value, and this means that there is a difference in the effect of each guntingan skill trainings from the two groups. It can be concluded that there is a difference in the effect of training using simple training tools and traditional training on the Pencak Silat guntingan skills. Furthermore, it can be said that the training using simple training tools has better effect on the guntingan skills than the traditional training method.

Discussions

Training tools have been widely used to as performance enhancement, assessment tools, and injury prevention (Hecimovich et al., 2018; Langholz et al., 2016; Rapp & Tirabeni, 2020). Trainers need training tools that can make it easier to give examples of movement (Syamsiyah et al., 2020). How ever, unconventional training method and equipments can be an effective way to train combat sports athletes (Santa na & Fukuda, 2011). This study used simple training tools which are affordable and easy to obtain, and can be said as unconventional training tools, because the tools used in this study are slightly different from the tools that usually used in Pencak Silat trainings.

Some training tools has been used for Pencak Silat in previous studies such as (Amrullah, 2016) who used Training Resistance Xander to improve the athletes’ crescent kick performance, and (Sinulingga et al., 2018) who developed a training tool to improve punching speed of Pencak Silat athletes. While these tools are effective to improve the performances of Pencak Silat athletes, the tools are expensive or hard to obtain. In addition, several previous studies used simpler training models and tools to improve the ability of pencak silat athletes. (Lestiyono & Purwono, 2020) used agility ladder and cone to improve the kick ability of Pencak Silat athletes, while (Babang et al., 2020) and (Efendi, 2022) specifically improved guntingan skills using imagery training and audio visual media respectively.

Equipments that are simple, easy to obtain, and can be used in training process, are suitable to be implemented in Pencak Silat schools (Sudarmanto et al., 2018). The tools used in this study are not only able to improve guntingan skill performances, but also easy to obtain because they are general goods that can be found in daily life which also affordable. In addition, the use of waste in cardiorespiratory training has been proven to be effective in improving cardiorespiratory performance (Widiastuti et al., 2019). The rubber bands used in this study were made from rubber tire wastes, which are free, and can indirectly help the utilization of wastes into useful goods.

This study shows significant differences before and after being given training using simple tools and traditional training to improve guntingan skills. There were also differences obtained between the experiment group and the control group, which shows that there is a difference in the effect of each guntingan skill trainings from the two groups. It can be concluded that the training using simple training tools has better effect on the guntingan skills than the traditional training method.

This study is limited to the implementation of simple training tools to improve the guntingan skills of Pencak Silat athletes. Further study could observe the effect of the tools implemented in this study on other Pencak Silat skills, or other martial arts and sport skills.

Conclusion

Unconventional training tools are effective to be used in Pencak Silat guntingan skills training. The improvement of athletes in performing guntingan skills shows that simple training tools can be used for Pencak Silat training. Furthermore, it can be said that the training using simple training

Table 3. t-Test: Paired Two Sample for Means Group

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error of Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre_test_1 - Post_test_1</td>
<td>-2040.333</td>
<td>1099.210</td>
<td>200.687</td>
<td>-2450.785 -1629.882</td>
<td>-10.167</td>
<td>29</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre_test_2 - Post_test_2</td>
<td>-221.067</td>
<td>529.809</td>
<td>96.730</td>
<td>-418.901 -23.233</td>
<td>-2.285</td>
<td>29</td>
<td>.030</td>
</tr>
</tbody>
</table>
tools has better effect on the guntingan skills than the traditional training method. However, further study could observe the effect of the tools implemented in this study on other Pencak Silat skills, or other martial arts and sports.

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Conflict of interest

No potential conflict of interest was reported by the authors.

References


S10
УДОСКОНАЛЕННЯ НАВИЧОК ВИКОНАННЯ ТЕХНІКИ КИДКА «НОЖИЦІ» З ВИКОРИСТАННЯМ ПРОСТИХ ТРЕNUВАЛЬНИХ ЗАСОБІВ

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Авторський вклад: А – дизайн дослідження; В – збір даних; С – статаналіз; Д – підготовка рукопису; Е – збір коштів

Реферат. Стаття: 5 с., 3 табл., 1 рис., 22 джерела.

Метою цього дослідження було визначення впливу тренувань із використанням простих тренувальних засобів, а саме: гумової стрічки, канатів і пінопластових палиць, на навички виконання техніки кидка «ножиці» у спортсменів, які займаються бойовими мистецтвами пенчак-силат.

Матеріали та методи. У цьому дослідженні використовували експериментальний метод із планом попереднього та підсумкового тестування з використанням контрольної групи. Цей план передбачав вибірку з двох груп: експериментальної групи, у якій використовували прості тренувальні засоби, і групи, у якій проводили прості тренування з навичок виконання техніки кидка «ножиці». Учасниками цього дослідження стали 60 спортсменів із школи бойових мистецтв пенчак-силату «Мерпаті путі» («Білий голуб»), розташованої в мусульманському релігійному навчальному закладі «Аль-Хайрія», Джакарта (Індонезія), які розділили на дві групи: експериментальну (30 учнів) і контрольну (30 учнів).

Як засіб тестування для оцінки показників у дослідженні використовували виконання техніки кидка «ножиці» із захопленням обома ногами талії суперника, що складається з 26 аспектів оцінки, правильність яких підтвердили 3 експерти.

Результати. Існують статистично значущі відмінності в результатах тестування учасників до та після проходження ними тренувань із використанням простих засобів і звичайного тренування з метою вдосконалення навичок виконання техніки кидка «ножиці», але вплив кожної з трьох тренувальних засобів на навички виконання техніки кидка «ножиці» є різним. Тренування з використанням простих тренувальних засобів краще впливає на навички виконання техніки кидка «ножиці», ніж тренування звичайним методом.

Висновки. Нестандартні тренувальні засоби є ефективними для застосування під час тренування з метою вдосконалення навичок виконання техніки кидка «ножиці». Покращення показників спортсменів у виконанні навичок кидка «ножиці» свідчить про те, що прості тренувальні засоби можна використовувати для тренувань із засобами кидка. У подальших дослідженнях можливо спостерігати вплив засобів, які використовували в цьому дослідженні, на інші навички пенчак-силату або навички інших бойових мистецтв і видів спорту.

Ключові слова: техніка кидка «ножиці», пенчак-силат, тренувальні засоби.

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