IMPROVING THE DOMINANT PHYSICAL CONDITION OF NGANJUK DISTRICT WRESTLING ATHLETES IN JUNIOR CATEGORY AGE 17-20 YEARS

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Abstract: For an athlete who is in good physical condition is a unified component that must be possessed both when practicing and competing, this also applies to wrestling athletes. The problem in this research is that there is a decrease in the physical condition experienced by wrestling athletes in Nganjuk Regency, especially in the Junior category aged (17-20 years). The dominant physical condition of wrestling consists of the physical components of arm power, leg power, flexibility, balance, speed and endurance. The purpose of this research is to improve the dominant physical condition of Nganjuk wrestling athletes by providing a circuit training program. The research design used is Sports Action Research (PTO). This research uses a type of qualitative research which is carried out in 2 cycles, in which each cycle consists of 5-6 meetings. The implementation took place in the Hall of Patianrowo 1 Public Middle School which is located on Jalan Raya Ngepung, Sukorejo Village, Patianrowo District, as a training ground for
wrestling athletes, Nganjuk Regency. The results of this study stated that all 6 components of the dominant physical condition tested had succeeded in meeting the success criteria, namely the components of arm power by 83.33%, leg power by 75%, flexibility by 91.67%, balance by 100%, speed of 83.33%, and durability of 83.33%. This shows that the aim of the researchers to improve the physical condition of junior wrestling athletes in Nganjuk district has been achieved so that the research can be completed until cycle II.

Keywords: Dominant Physical Conditions; Athlete; Wrestling

INTRODUCTION

Wrestling is a martial arts sport that is competed individually or one-on-one with the intention of obtaining superior points from opponents using stabbing and slamming techniques. According to (Hafizah et al., 2021), wrestling is a type of body contact martial sport that requires wrestlers to have maximum condition. Wrestling is an achievement sport that has its own characteristics, namely sports that face using limbs directly by knocking down opponents by slamming, tripping, pulling, pushing, and holding opponents on the mat in accordance with predetermined match rules (Gustiawan, 2021). Meanwhile, according to (Saputra, I, 2020), wrestling is a sport that is carried out by competing two wrestlers by knocking each other down using the correct technique, so as not to injure the opponent. That way it can be further explained that wrestling is a sport that is competed one on one using limbs / body contact directly using pulling, pushing, locking, snatching and slamming techniques which aim to get superior points from opponents in order to successfully get victory.

Physical condition is the main requirement that an athlete must have both when practicing and competing. In an athlete's training program, the athlete's physical condition plays a very important role (Harsono, 2018). Physical condition is the foundation in the development of strategy, tactics, techniques, and mental development (Bafirman, 2018). Physical condition is important because there are several components in it, namely: strength, agility, flexibility, speed, balance and endurance (Saputra, 2019). The dominant physical condition of wrestling mentioned (Prawirasaputra, 1993) consists of the physical components of arm power, leg power, flexibility, balance, speed and endurance.

Power or explosive power is the result of the element of speed and the element of strength. Power is the ability of muscles to expend maximum energy in a fast time (Harsono, 2018). Arm and leg power in the sport of power wrestling is often used by athletes to carry out attacks. Body flexibility is a body activity that is influenced by the shape of muscles, joints, tendons, and ligaments to perform a very wide range of joint movements (Ambarwati, 2017). In the sport of wrestling, flexibility greatly affects the flexibility of athletes in their movements and helps athletes minimize the occurrence of injuries. Balance or balance is the state of the body maintaining the neuromuscular system (muscle nervous system) in a stagnant state, or regulating the muscle nervous system so that the body does not easily collapse or fall (Harsono, 2018). Balance in wrestling is used to maintain body position when attacking and defending.
Speed is the ability to cover distance quickly (Lubis J, 2018). Speed can help wrestling athletes increase the success of performing a technique. Aerobic endurance is the body's ability to train or work for a long time and not feel excessive fatigue (Harsono, 2018). The endurance of a wrestling athlete greatly affects the wrestler's ability to complete the length of the match.

Based on the initial observations carried out, at the SMP Negeri 1 Patianrowo Hall as a training ground for Nganjuk Regency wrestling athletes, the average Nganjuk Regency wrestling athlete has a declining physical condition, especially regarding the dominant physical conditions mentioned earlier. This is evident from the results of the latest match held in Tuban on December 10-12, 2021 where Nganjuk Regency is ranked 15th, the biggest factor causing a decrease in the physical condition of Nganjuk Regency wrestling athletes is the covid-19 virus which has been rampant for about 2 years. For approximately 2 years the Nganjuk Regency wrestling coach closed his athletes, in mid-2019 to mid-2021 the covid-19 virus was at its worst and began to subside at the end of 2021. So the wrestling coach also just resumed training at the end of 2021.

Researchers are interested in researching Nganjuk Regency wrestling athletes because wrestling in Nganjuk Regency is still in the developing stage and some of the athletes are not in good condition regarding their physical condition. This can be seen from the researchers' observations of Nganjuk Regency wrestling athletes practicing at the SMP Negeri 1 Patianrowo Hall, at that time the athletes were practicing deepening wrestling techniques. The athletes looked slower and often took breaks, as well as when practicing sparring athletes waited more often than attacking aggressively, this made the training session slow. The availability of athletes at the Nganjuk Regency wrestling training ground is also a challenge. Nganjuk Regency wrestling has no novice athletes and mostly consists of Junior category athletes (17-20 years old).

Based on the above problems, it is necessary to make research on improving the dominant physical condition of Nganjuk Regency wrestling athletes in the Junior category (17-20 years). The purpose of this research is to improve the dominant physical condition of Nganjuk Regency wrestling athletes by providing a planned training program.

METHOD

Research Methods and Types

This research design uses the form of Sports Action Research (PTO) which is focused on sports activities in sports clubs. The type of research used is qualitative research, where this research aims to understand events about what happens to the research subject. In this study, the researcher collaborated with the Nganjuk Regency wrestling coach. Researchers participated directly in the research from the beginning to the end of the research. Researchers try to observe, feel, see, live, reflect and evaluate the training activities that take place.
The implementation of action research consists of several stages, namely planning, providing action, observation, analysis and reflection. The following are the stages of action implementation in sports action research:

![PTO design](image)

**Figure 1. PTO design**

The implementation of the research took place at the SMP Negeri 1 Patianrowo Hall which is located on Jalan Raya Ngepung, Sukorejo Village, Patianrowo District as a training ground for Nganjuk Regency wrestling athletes. The subjects studied were junior category Nganjuk Regency wrestling athletes (17-20 years) consisting of 12 people consisting of 4 female athletes and 8 junior category male athletes. As an indicator of the success of the action is the improvement in physical condition experienced by wrestlers after the provision of action. Each cycle in this study consisted of 6 meetings which were conducted in two cycles. Data collection techniques are carried out by observation, interviews, tests and documentation.

In this study, the instruments used were test and non-test instruments. The test instrument is a physical condition ability test which will be carried out at the end of the cycle, while the non-test instrument is in the form of an observation sheet which is used to observe every action taken during the training process. Data assessment of the results of an athlete's training program will focus on increasing the dominant physical condition of wrestling athletes. The data analysis technique in this sports action research (PTO) uses the percentage formula as follows:

\[
P = \frac{F - \text{Berhasil}}{N - \text{Sampel}} \times 100\%
\]

- \( P \) : Success Score
- \( F - \text{Berhasil} \) : Total Successful Samples
- \( N - \text{Berhasil} \) : Total Number of Athletes
- 100% : Constant Value

**Table 1 Percentage of Action Success Rate**

<table>
<thead>
<tr>
<th>No</th>
<th>Presentase</th>
<th>Kategori</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100%</td>
<td>Sempurna (S)</td>
</tr>
<tr>
<td>2</td>
<td>85% - 95%</td>
<td>Sangat Baik (SB)</td>
</tr>
<tr>
<td>3</td>
<td>70% - 80%</td>
<td>Baik (B)</td>
</tr>
</tbody>
</table>
The success of the action can be seen from the improvement in the physical condition of junior category Nganjuk Regency wrestling athletes who obtain the minimum criteria completeness standard with a percentage above or equal to 70%, besides that the success of the action can also be seen from the observation sheet and the enthusiasm of the athletes in carrying out the training program that has been given.

RESULTS
1. Research Results

Before carrying out the research, the researcher first observed the wrestling athletes of Nganjuk Regency which was located in the Hall of SMP Negeri 1 Patianrowo, from this observation process data was obtained which showed that the initial physical condition of Nganjuk Regency wrestling athletes was still in the deficient category, athletes looked easily exhausted when doing competitive training and there were several athletes who could not complete the program given. In this study, researchers also conducted an initial test in the form of a dominant physical condition test to determine the initial physical condition of Nganjuk Regency wrestling athletes before giving action. The dominant physical condition test consists of a push up test for the arm power component, triple hop for the leg power component, trunk extension for the flexibility component, stork standing balance for the balance component, 50yard sprint for the speed component and 1600m run for the endurance component. The results of the initial test of the dominant physical condition of Nganjuk Regency wrestling athletes are as follows:

Table 2 Data on the Results of Initial Observations of the Dominant Physical Conditions of Wrestling Athletes of Nganjuk Regency in the Junior Category of 17-20 Years of Age

<table>
<thead>
<tr>
<th>No</th>
<th>Komponen Tindakan</th>
<th>Skor</th>
<th>Presentase</th>
<th>Keterangan keberhasilan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tuntas (70% ≤ X)</td>
<td>Belum tuntas (X ≤ 70%)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Power Lengan</td>
<td>6</td>
<td>6</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Power Tungkai</td>
<td>7</td>
<td>5</td>
<td>58,3%</td>
</tr>
<tr>
<td>3</td>
<td>Kelentukan</td>
<td>7</td>
<td>5</td>
<td>58,3%</td>
</tr>
<tr>
<td>4</td>
<td>Keseimbangan</td>
<td>8</td>
<td>4</td>
<td>66,7%</td>
</tr>
<tr>
<td>5</td>
<td>Kecepatan</td>
<td>8</td>
<td>4</td>
<td>66,7%</td>
</tr>
<tr>
<td>6</td>
<td>Daya tahan</td>
<td>7</td>
<td>5</td>
<td>58,3%</td>
</tr>
</tbody>
</table>

Source: (personal document)

It can be seen from the table above that of the 6 dominant physical condition components that have been tested in the initial observation, none of the physical condition...
components have succeeded in good condition, therefore it is hoped that with this research there will be an increase in physical conditions that occur in junior category Nganjuk Regency wrestling athletes.

3.1 Cycle 1
a. Action Planning I

Action planning I is to prepare an exercise program in which this exercise program has been prepared before the Sports Action Research activities are carried out. Prepare a list of assessments of athletes’ physical condition in the form of observation sheets and test sheets during the training process compiled by researchers together with the main trainer and adjusted to the training program that has been made.

b. Implementation of Action I

Implementation of cycle I action, the researcher acts as an assistant coach and also as an observer who is assisted by the main coach to provide training programs and assess the development of physical conditions, especially the dominant physical condition of the wrestling athletes studied.

c. Observation of Action I

Researchers at this stage observe the course of training and provide direction if there are mistakes made by athletes when implementing the training program.

d. Reflection

Reflection of action research in cycle I obtained from the results of physical condition tests after athletes / wrestlers perform training programs or actions can be seen in the table as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Komponen Tindakan</th>
<th>Skor</th>
<th>Presentase</th>
<th>Keterangan keberhasilan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Lengan</td>
<td>8</td>
<td>4</td>
<td>66.67</td>
</tr>
<tr>
<td>2</td>
<td>Power Tungkai</td>
<td>8</td>
<td>4</td>
<td>66.67</td>
</tr>
<tr>
<td>3</td>
<td>Kelentukan</td>
<td>10</td>
<td>2</td>
<td>83.33</td>
</tr>
<tr>
<td>4</td>
<td>Keseimbangan</td>
<td>10</td>
<td>2</td>
<td>83.33</td>
</tr>
<tr>
<td>5</td>
<td>Kecepatan</td>
<td>10</td>
<td>2</td>
<td>83.33</td>
</tr>
<tr>
<td>6</td>
<td>Daya tahan</td>
<td>8</td>
<td>4</td>
<td>66.67</td>
</tr>
</tbody>
</table>

Sumber: (dokumen pribadi)
Based on the results of the dominant physical condition test in cycle I, athletes who meet the success criteria for the dominant physical condition of the arm power component are 8 athletes and 4 others are still lacking with a success percentage of 66.67%, for the leg power component 8 athletes meet the success criteria and 4 others still need improvement where the percentage of success has been obtained at 66.67%, for the flexibility component 10 athletes have managed to meet the success criteria but 2 athletes still have not managed to increase the target success with a success percentage of 83.33%, 10 athletes have managed to meet the success criteria for the balance component and 2 athletes have not reached the success criteria with a success percentage of 83.33%, and for the endurance component there were 8 athletes who met the success criteria but 4 others did not meet the criteria so that the percentage of success obtained was 66.67%. Based on the explanation of the data above, it can be concluded that there are 3 components of physical condition that have met the success criteria, namely the components of flexibility, balance and speed, with a percentage of 83.33% and 3 other physical condition components have not met the success criteria.

Therefore, researchers are encouraged to continue action research to cycle II so that the targets can be achieved and met, by observing and correcting the findings that have been collected data.

a. Action Planning II

Implementation of Action II is carried out based on the reflection of cycle I. In the reflection of cycle I, data was obtained that athletes experienced an increase in physical condition for the 3 dominant physical condition components. This causes training with the previously given program to be maintained, but with an increase in the volume of the training program.

b. Implementation of Action II

In the implementation of cycle II action, the researcher acts as an assistant coach and also as an observer who is assisted by the main coach to provide training programs and assess the development of physical conditions, especially the dominant physical condition of the wrestling athletes studied.

c. Observation of Action II

Researchers at this stage observe the course of training and provide direction if there are mistakes made by athletes when implementing the training program.

d. Reflection

After the researchers carried out the action or meeting by providing an exercise program during cycle II on April 18 - May 6, 2022 Nganjuk Regency wrestling athletes looked more enthusiastic about the training program provided, they seemed to enjoy and were more maximal in undergoing the training program. The following are the results of the reflection on the
implementation of actions taken in cycle II, the data obtained from the results of the physical condition test after the action can be seen in the following table:

Table 4 Test Results of Dominant Physical Condition of Wrestling Athletes of Nganjuk Regency Junior Category Age 17-20 Years in Cycle II

<table>
<thead>
<tr>
<th>No</th>
<th>Komponen Tindakan</th>
<th>Skor</th>
<th>Presentase</th>
<th>Keterangan keberhasilan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tuntas (70% ≤ X)</td>
<td>Belum tuntas (X ≤ 70%)</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>Power Lengan</td>
<td>10</td>
<td>2</td>
<td>83,33</td>
</tr>
<tr>
<td>2</td>
<td>Power Tungkai</td>
<td>9</td>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>Kelentukan</td>
<td>11</td>
<td>1</td>
<td>91,67</td>
</tr>
<tr>
<td>4</td>
<td>Keseimbangan</td>
<td>12</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Kecepatan</td>
<td>10</td>
<td>2</td>
<td>83,33</td>
</tr>
<tr>
<td>6</td>
<td>Daya tahan</td>
<td>10</td>
<td>2</td>
<td>83,33</td>
</tr>
</tbody>
</table>

Based on the results of the dominant physical condition test in cycle II, athletes who meet the criteria for the success of the dominant physical condition of the arm power component are 10 athletes and 2 others are still lacking with a success percentage of 83.33%, for the leg power component 9 athletes meet the criteria for success and 3 others still need improvement where the percentage of success has been obtained by 75%, for the flexibility component 11 athletes have successfully met the criteria for success and 1 athlete / wrestler has not yet achieved an increase to the predetermined success target with a success percentage of 91.67%, 11 athletes have succeeded in meeting the criteria for success in the balance component with a percentage of success of 100%, for the speed component 10 athletes have met the criteria and 2 others have not met so that the percentage of success obtained is 83.33%, and for the endurance component there are 10 athletes who meet the success criteria and 2 others have not met the criteria so that the percentage of success obtained is 83.33%. This shows that the goals of the researchers to improve the physical condition of junior wrestling athletes in Nganjuk Regency have been achieved so that the research can be ended until cycle II.

2. Research Data Analysis

In sports action research (PTO) conducted at the Nganjuk Regency Wrestling club which is located in the Hall of SMP Negeri 1 Patianrowo, in the initial observation the researchers found that the physical condition of Nganjuk Regency wrestling athletes had decreased, this was seen during the training process athletes looked easily tired and there were several athletes who could not complete the training program, according to the coach the cause was the covid-19 pandemic outbreak which caused the training to be off for a long time, there were no clear instructions, athletes were only asked to increase training independently and keep the condition. Whereas the physical condition of athletes is the foundation for the development of techniques, tactics, strategies and mental development (Muhammad, 2018).
In this study, researchers succeeded in improving the physical condition of junior category Nganjuk Regency wrestling athletes. The athletes managed to get a presentation of success in each component of the physical condition tested above 70%. Given the importance of physical condition for an athlete to achieve maximum performance. Physical condition also acts as an initial foundation to improve the ability of an athlete if he wants to obtain the highest achievement (Wahyuni & Donie, 2020). Providing a physical activity program using a physical exercise program to approach athletes will have a good impact, especially in terms of physical fitness (S. A. Saputra et al., 2022). The improvement in physical condition from cycle I and cycle II can be seen in the graph below:

**Graph 1 Results of Dominant Physical Condition Test Cycle 1 & Cycle 2**

During the research, the improvements that occurred can be detailed as follows, for each component:

1. **Arm Power Component**
   In cycle I obtained a percentage = 66.7%, while for cycle II obtained a percentage = 83.3%, which means an increase of 16.6%.

2. **Limb Power Component**
   In cycle I obtained a percentage = 66.7%, while for cycle II obtained a percentage = 75%, which means an increase of 8.3%.

3. **Flexibility Component**
   In cycle I obtained a percentage = 83.3%, while for cycle II obtained a percentage = 91.7%, which means an increase of 8.4%.

4. **Balance Component**
In cycle I obtained a percentage = 83.3%, while for cycle II obtained a percentage = 100%, which means an increase of 16.7%.

5. Speed Component
   In cycle I, the percentage = 83.3%, while for cycle II, the percentage = 83.3%.

6. Endurance Component
   In cycle I, the percentage = 66.7%, while for cycle II the percentage = 83.3%, which means an increase of 16.6%.

In this data, it can be concluded that the provision of actions carried out by researchers in collaboration with coaches is successful because it can improve the dominant physical condition of junior category Nganjuk Regency wrestling athletes.

Based on the description of the research and the results obtained by the researcher in the implementation of the research, it can be concluded that there was a significant increase and the percentage of success was above 70% of the physical condition tests carried out, where physical condition also greatly affects the achievement of a wrestler. In line with previous research, there are differences and advantages obtained from this research, namely: This research takes the dominant physical condition components, meaning the components that wrestling athletes often use in competing so that it will be more targeted.

CONCLUSION

From the exposure of the data above, it can be concluded that all of the 6 dominant physical condition components tested have succeeded in meeting the success criteria, namely the arm power component of 83.33%, leg power of 75%, flexibility of 91.67%, balance of 100%, speed of 83.33%, and endurance of 83.33%. This shows that the objectives of the researchers to improve the physical condition of junior wrestling athletes in Nganjuk Regency have been achieved so that the research can be ended until cycle II. The results of improving physical conditions in cycle II have reached a percentage of 70% and above and are in the complete category. The success achieved is in line with the main objectives of PTO research at the Nganjuk Regency wrestling club.

Acknowledgment

The author realizes that there are still shortcomings in the writing of this article. However, the researchers hope that this article can be useful and can be used as a reference source for similar studies. The authors cannot deny that the authors needed a lot of effort in completing the article. However, this article would not have been completed without the people who have supported and helped. Thank you to: 1. Drs. Tatok Sugianto, S.Pd, M.Pd as the first Supervisor who has provided and assisted in carrying out guidance and shared various experiences with the authors, 2. Dr. Surya Adi Saputra, S.Pd, M.Pd.AIFO as the second Supervisor who has also provided and assisted in carrying out guidance and shared various experiences with the authors, 3. As well as researchers also express their gratitude to all the Lecturers of the Faculty of Sports Science, Health and Recreation Physical Education Study Program who have educated and provided knowledge during lectures and 4. To family, friends and all parties who have helped in
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REFERENCES


