

Efforts to Improve the Physical Conditions of Banyuwangi Teenage and Junior Wrestling Athletes After Coronavirus Outbreak Covid-19

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Submitted : January 14, 2022

Accepted : March 3, 2022

Published : March 20, 2022

Abstract

Background: The decreased intensity of exercise accompanied by the absence of an exercise program aimed at maintaining physical condition during the COVID-19 outbreak caused the wrestling athletes of Camp Satria Perkasa Kedunggebang to experience a decrease in physical condition.

Objectives: This study aims to improve the physical quality of 20 athletes categorized according to their teens (ages 13-16 years) and juniors (ages 17-21 years), consisting of 14 males and 6 females.

Methods: The research method used is a quantitative research type within action sports research. In this sports action research, there are two cycles, and each cycle consists of 3 to 5 meetings, where each cycle consists of 4 stages, namely planning, action/treatment, observation/observation, and reflection.

Results: From the results of the tests that have been carried out, many athletes have managed to improve their speed quality as much as 70% of the total athletes, 75% agility quality, 85% strength component and 75% endurance.

Conclusion: That all components of the athlete's physical condition have successfully met the previously targeted success criteria.

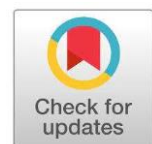
Keywords: wrestling, physical condition, covid-19.

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INTRODUCTION

A wrestler really needs good cardiorespiratory endurance, this is important because when the wrestler does not experience excessive fatigue during the match, in addition to having a good level of endurance will be very helpful in thinking to support when planning an attack, so that wrestlers are able to master the match (Saputra & Norrochmah, 2019). However, the inhibition of training activities undertaken by Banyuwangi wrestling athletes resulted in many declining physical performances such as lack of training, decreasing of muscle mass, physical endurance, decreased physical endurance. For example, one of a Banyuwangi wrestling athlete whose performance is declining is Nanda Okta Efendi in the 50 kg Greco Roman style and for the female Norma Ayu Agustina in the 53 kg Women's Freestyle class, both athletes have experienced severe physical decline problems and must be immediately addressed by the coach. Nanda Okta, she experienced an extreme increase in weight from what the athlete should have maintained at around 50 kg, now her weight has almost touched 63 kg and for Norma Ayu, she also experienced lack of physical endurance when the athlete was doing sparring activities or trials, but not all wrestling athletes Kab. Banyuwangi has decreased physical quality.

The problem faced is that athletes there are very significant physical changes in the athlete's body from the physical, stamina, to the strength of the athletes' muscles will change drastically due to lack of sufficient training for the athlete's needs in preparing for an event or match. Providing physical activity programs using a physical training program to approach athletes will have a good impact, especially in terms of physical fitness.

This study aims to improve the physical quality of 20 athletes who are categorized according to their teens (ages 13-16 years) and juniors (ages 17-21 years) consisting of 14 boys and 6 girls. In this sports action research, there are two cycles, and each cycle consists of 3 to 5 meetings, where each cycle consists of 4 stages, namely planning, action/treatment, observation/observation, and reflection (Prihantoro, 2019). These two cycles were carried out with the aim of knowing whether or not there was an improvement in the physical condition of the Banyuwangi youth and junior wrestling athletes after the pandemic. In this study, there were 2 cycles where at each meeting an athlete's physical improvement training program was given as an action. Each cycle has four stages consisting of planning, action/treatment, observation/observation and reflection (Mahmud & Pratama, 2008). The data obtained in this sports action research in the form

of notes about the results of these observations were collected through observation (observation data), namely observations of the training process of athletes which aims to find out how the process and development of athletes in participating in the training process, and observations of the training process of coaches which aims to know how the coach does his job. The results of the final test athlete test (psychomotor test) that is by taking data on the physical condition at the end of the cycle.

METHODS

Study Design and Participants

The research method used is a quantitative research type within this study the method used is action sports research (PTO). Sports action research is research conducted to overcome the problems that exist in a club or sports training venue, sports action research can be used as a means for coaches to improve the quality of training effectively (Amir et al., 2020). PTO is often referred to as action research, where this research will be carried out through several cycles with the hope that there will be an increase in the results of the training to be achieved (Suharmisi, 2021). In the context of the preparation of this scientific paper, this research was carried out at the Satria Perkasa Banyuwangi wrestling training center in Kedunggebang village. According of research titles which separate by 2 types of subject's categories: (1) Teenagers (2) Junior. The details are as follows teenagers (ages 13-16 years) and juniors (ages 17-21 years) with consisting of 14 males and 6 females.

Research Instruments

In this sports action research, there are two cycles, and each cycle consists of 3 to 5 meetings, where each cycle consists of 4 stages, namely planning, action/treatment, observation/observation, and reflection (Prihantoro, 2019). These two cycles were carried out with the aim of knowing whether or not there was an improvement in the physical condition of the Banyuwangi youth and junior wrestling athletes after the pandemic. In this study, there were 2 cycles where at each meeting an athlete's physical improvement training program was given as an action. Each cycle has four stages consisting of planning, action/treatment, observation, and reflection (Mahmud & Pratama, 2008). The data obtained in this sports action research in the form of notes about the results of these observations were collected through observation (observation data), namely observations of the training process of athletes which aims to find out how the progress and development of athletes in the training process, and observations of the training process of coaches which

aims to know how the coach does his job. The results of the final test athlete test (psychomotor test) that is by taking data on the physical condition at the end of the cycle.

The treatment was given in the first cycle meeting the researchers provided physical exercise in the form of bench press, rolling full, triceps push down, standing press, neck exercises and 5 minutes of sparing. This treatment was given in the afternoon with a duration of 4 hours of dive treatment in the training camp, then the researchers and the trainers reflected and evaluated the results of the exercise. After the first cycle was completed, the researchers continued with the second cycle with training treatments in the form of flywheel training, squad thrust, 2-hand pull, kayang lateral raise, slamming exercise, wheelbarrow, and jumping jack with a treatment duration of 4 hours.

After giving treatment as much as 2 cycles, the researchers then collected data, in this study the techniques used to collect data are: The data in this study are in the form of observation sheets, namely by taking data on the physical condition at the end of the cycle (psychomotor test). Measurement of athlete training results data that focuses on improving physical condition as follows:

1. Strength of abdominal muscles and arm muscles using (60 second sit up and push up test)

Objective: To measure the strength and endurance of the abdominal and arm muscles. The procedure for carrying out the 60 second sit up and push up test according to (Hanafi, 2019).

- a. Body facing the floor with elbows straight,
- b. The palms of the hands are shoulder width apart or slightly wider.
- c. Rotate your hands in 30-45 degrees, so that your elbows point out.
- d. The body is tried to be straight from one line from head to toe, slowly lower the chest until it touches the floor.
- e. Then, push the body up until both hands are straight and elbows locked.
- f. Keep your body straight throughout the movement. Do it over and over.

Table 1. The Norm of the 60-Second Sit-Up Test

No	Norm	Achievement			
		Male		Female	
		Junior	Teenagers	Junior	Teenagers
1	Very Good	70 – Up	60 – Up	60 – Up	50 – Up
2	Good	55 – 69	45 – 59	45 – 59	35 – 49
3	Moderate	35 – 54	25 – 44	25 – 44	20 – 34
4	Less	25– 34	16 – 24	16 – 24	5 – 19
5	Less Once Down	Down – 24	Down – 15	Down – 15	Down – 5

The procedure for carrying out the 60 second push up test according to [Hanafi \(2019\)](#).

- a. Lie on your back with your hands behind your neck and your elbows straight in front of you, knees bent and feet on the floor.
- b. The body is lifted and both elbows touch the knees
- c. Movement is repeated

Table 2. The Norm of the 60-Second Push-Up Test

No	Norm	Achievement			
		Male		Female	
		Junior	Teenagers	Junior	Teenagers
1	Very Good	60 – Up	50 – Up	50 – Up	45 – Up
2	Good	45 – 59	35 – 49	35 – 49	30 – 44
3	Moderate	35 – 44	25 – 34	25 – 34	15 – 29
4	Less	15– 34	11 – 24	11 – 24	5 – 14
5	Less Once Down	Down – 14	Down – 10	Down – 10	Down – 5

2. Test the athlete's endurance by doing as many slams as possible in 20 seconds

Objective: To measure the impact resistance. The procedure for carrying out a kickback test

- a. Athletes get ready with a slamming position
- b. Both feet make a square
- c. After the time is turned on, the athlete slams the volunteer for 20 seconds
- d. The athlete slams as quickly and as much as possible until the time is over in 20 seconds
- e. the tester counts the number of slams in that 20 second

Table 3. Drop Test Norms

No	Norm	Achievement			
		Male		Female	
		Junior	Teenager	Junior	Teenager
1	Very Good	17 – Ke Up	13 – Up	13 – Up	10 – Up
2	Good	13 – 16	9 - 12	9 - 12	7 - 9
3	Moderate	9 – 12	5 - 8	5 - 8	4 - 6
4	Less	5 – 8	2 - 4	2 - 4	1 - 3
5	Less Once Down	Down – 5	Down – 2	Down – 2	Down – 1

3. Explosive Power (test using max bench press)

Objective: To measure the explosive power of athletes' muscles. The implementation procedure according to [Loturco et al. \(2017\)](#) bench press 1 max test is carried out as follows:

- a. Athletes lie on a bench that has been provided, in a natural and relaxed body position.
- b. Make sure the athlete is assisted by a friend when lifting weights.

c. Lift the weight up, lower it slowly above the sternum, and kick it up as much as possible

Table 4. Bench Press Test Norm

No	Norm	Achievement			
		Male		Female	
		Junior	Teenager	Junior	Teenager
1	Very Good	100 – Up	75 – Up	75 – Up	55 – Up
2	Good	75 – 95	55 – 70	55 – 70	45 – 50
3	Moderate	55 – 70	35 – 50	35 – 50	30 – 40
4	Less	35 – 50	20 – 30	20 – 30	15 – 25
5	Less Once Down	Down – 30	Down - 15	Down - 15	Down - 15

In the implementation of the psychomotor test above, the test participants or athletes can be said to have succeeded in exceeding the target if the assessment score of each component is in the minimal category of the moderate category and if it is less than that, it can be stated that the athlete has not been able to exceed the set target. The success indicator of the action is seen in the changes in the athlete's condition before doing research and after doing exercises to improve physical condition, the athletes look enthusiastic in following the training program that has been given, the feeling of pleasure and enthusiasm in the athletes can improve physical condition unconsciously. Characterized by an increase in muscle mass to better stamina than before. Which can be seen in the increase in physical condition data that obtained the minimum criteria completeness standard with a percentage of 70% of the 20 athletes studied (Sabri, 2021).

Data Analysis

This Sports Action Research was carried out in 2 cycles and took place at the Satria Perkasa Kedunggebang wrestling training ground, Banyuwangi Regency. In the first cycle, the research was carried out from Monday to Saturday and on Friday there were no research activities. The second cycle was carried out from Monday to Thursday and on Saturday a psychomotor test was carried out. The results of the reflection on the implementation of the exercise actions that have been carried out in cycle 1 are listed in the table below.

Table 6. Research Results Cycle 1

No	Action Component	Score		Percentage	Action Component
		Complete (70% ≤ X)	Uncomplete (X ≤ 70%)		
1	Speed	12	8	60	Uncomplete
2	Agility	13	7	65	Uncomplete
3	Strength	14	6	70	Complete
4	Endurance	12	8	60	Uncomplete

Based on the results of the cycle I data table 6, 12 athletes managed to improve the quality of their speed and 8 athletes still did not meet the success criteria with a percentage of 60%, 13 athletes had succeeded in improving the quality of their agility but 7 athletes still could not increase to the threshold of success that had been made with the percentage success is still 65%, 14 athletes have succeeded in training their strength components and only 6 athletes still do not meet the success criteria with a percentage of 70% and for endurance there are 12 athletes who have managed to improve their quality and 8 athletes still do not meet the criteria for success with a percentage of 60%. From the explanation above, it can be concluded that only one component has met the success criteria, namely the strength component with a percentage of 70% and the three components have not met the target of action research. This encourages researchers to continue action research to cycle II until the set targets are achieved, of course, by looking at and correcting from the reflections that have been collected.

RESULTS

Reflect on the results of the exercise to improve the physical condition of the Banyuwangi wrestling athletes, while the results of the reflection on the implementation of the training actions that have been carried out in cycle 2 can be seen in the following table.

Table 7. Research Results for Cycle 2

No	Action Component	Score		Percentage %	Description of success
		Complete ($70\% \leq X$)	Uncomplete ($X \leq 70\%$)		
1	Speed	14	6	70	Complete
2	Agility	15	5	75	Complete
3	Strength	17	3	85	Complete
4	Endurance	15	5	75	Complete

Based on the results of the cycle II data table 7, 14 athletes managed to improve the quality of their speed and 6 athletes still did not meet the success criteria with a percentage of 70%, 15 athletes had succeeded in improving the quality of their agility and 5 athletes still could not increase to the success threshold that had been made with the percentage of success is 75%, 17 athletes have successfully trained their strength components and only 3 athletes who still do not meet the success criteria with a percentage of 85% and for endurance there are 15 athletes who have managed to improve their quality and 5 athletes still do not meet the success criteria with a percentage of 75%. From the explanation above, it can be concluded that all components of the physical condition have successfully met the success criteria that were previously targeted. It is also seen the development of athletes

when carrying out research in cycle I and cycle II, previously in cycle I only one component was successfully achieved, the target for cycle II all components were successfully achieved.

Final Test (Psychomotor)

To strengthen the assumption of the net of the sports action research, the researchers also conducted a psychomotor test which was used to see the results of research from all athletes who participated in the study and to see the development of the components of physical condition whether they had reached the target limit or still needed improvement. For information on the results of psychomotor tests, see the table below:

Table 8. Psychomotor Test Results

No	Compenent Test	Score		Percentage %	Description of success
		Above Target ($70\% \leq X$)	Under Target ($X \leq 70\%$)		
1	Push Up	17	3	85%	Completed
2	Sit Up	19	1	95%	Completed
3	Slamming	20	0	100%	Completed
4	Bench Press	17	3	85%	Completed

Based on the table 8, There were 17 athletes who managed to exceed the target for the sit-up test and 3 athletes still did not meet the success criteria with a percentage of 85%, for the push-up test 19 athletes had managed to get repetitions above the threshold value and only 1 athlete still could not increase to the success threshold. has been made with a success percentage of 95%, for the drop test as many as 20 athletes or all athletes participating in action research have succeeded in training their drop endurance with a percentage of 100%.

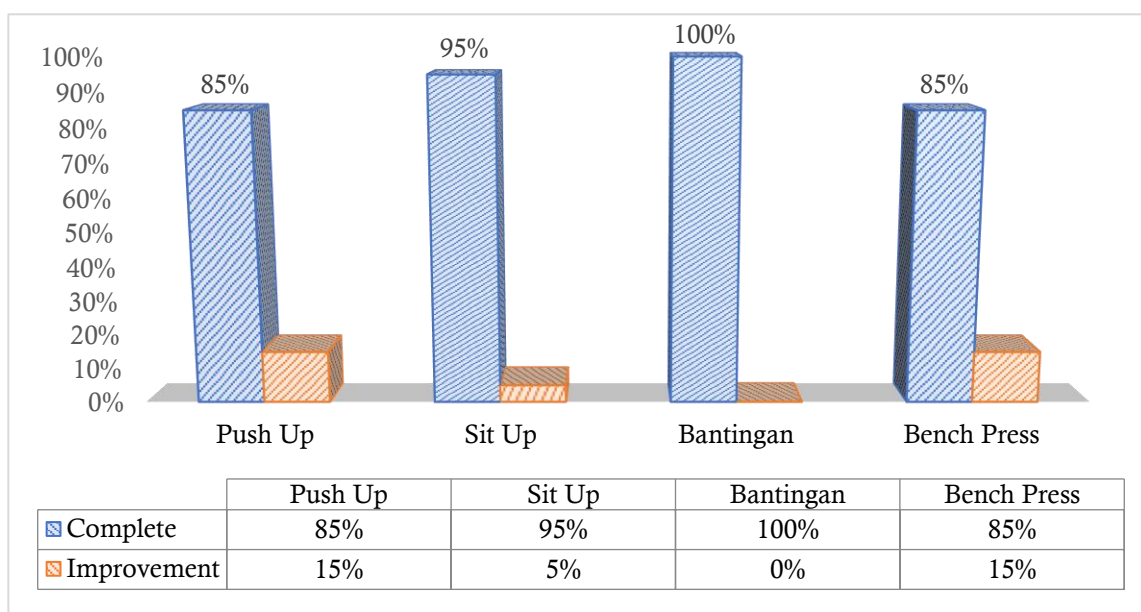


Figure 1. Psychomotor Test Results

Based on the chart figure 1, it can be concluded that 17 athletes managed to exceed the target for the sit up test and 3 athletes still did not meet the success criteria with a percentage of 85%, for the push up test as many as 19 athletes had managed to get repetitions above the threshold value and only 1 athlete still did not. can increase to the success threshold that has been made with a success percentage of 95%, for the drop test as many as 20 athletes or all athletes who participated in action research have succeeded in training their resilience with a percentage of 100% and for the bench press test there are 17 athletes who have succeeded in improving their quality and 3 athletes still do not meet the criteria for success with a percentage of 85%. From the explanation above, it can be concluded that the psychomotor test components that have been carried out have reached or even exceeded the target limit value that has been achieved and only a few athletes were unable to meet the target due to several factors that could hinder the development of the athlete's physical fitness.

From the results of data regarding the success rate of improving the physical condition of wrestling athletes in Kab. Banyuwangi Teens and Juniors after the Covid-19 pandemic which was held at the Satria Perkasa Kedunggebang Wrestling Camp in Banyuwangi Regency had been obtained from actions in cycle II and strengthened by the results of psychomotor tests conducted by researchers, it can be concluded that the purpose of this sports action research (PTO) is has been achieved.

DISCUSSION

Wrestling is a sport that requires excellent physical condition, because with excellent physical condition it will support athletes in every match or fight. Physical condition is a unity of several components that are related to each other. The most influential components in boxing according to [Julita \(2017\)](#). Muscular strength is the ability of a muscle or muscle group to perform work, by holding the load it lifts. Strong muscles will make daily muscle work efficiently such as lifting, carrying, jumping, jumping and they will make a better body shape ([Putra, 2019](#)). Strength is the ability of a muscle or group of muscles to overcome a load or resistance ([Spiering et al., 2021](#)). In wrestling, strength is one of the important factors supporting the success of athletes in increasing an achievement. Especially arm muscle strength, because boxing prioritizes punches and arm muscle strength can be obtained through various exercises such as push ups, dumbbell exercises and so on.

Speed is one of the basic biomotor abilities needed in every sport. Speed is the rate of muscle movement, both for body parts (arms, hands, and legs) and for the whole body (the whole body moves) ([Setya, 2021](#)). Speed or speed is a continuous effort or movement that is carried out as quickly as possible to move from one place to another. Speed in boxing is an important factor supporting the success of athletes, because when competing, the speed of the punches greatly affects the number of points earned.

Agility is the ability to maintain control of body position while changing direction rapidly during a series of movements. So that agility is very important for sports that require high adaptability to changing situations in matches, agility or agility according to the ability to change the direction of movement quickly without losing body balance. In wrestling, leg agility is also very important, especially athletes who have a fast and agile type of competition, because this fast and agile fighting style moves a lot and requires good foot agility.

Endurance is the long endurance ability of the athlete's organism to fight fatigue within a certain time limit where activities are carried out with high intensity (high tempo, high frequency) and always use power. The lungs, heart, nerve centers and muscles work hard in determining stamina ([Soetjipto, 2013](#)). Endurance consists of muscle endurance and cardiorespiratory endurance ([Barus, 2020](#)). In wrestling the main factors are endurance, technique and tactics. When competing, wrestlers will not come out well if

their immune system is weak. Endurance in wrestling greatly affects during the match, can cause a lack of concentration and will interfere with the athletes.

CONCLUSION

The findings show that the level of physical conditioning of the Banyuwangi wrestling athletes at Camp Satria Perkasa Kedunggebang which are 20 athletes who are categorized according to their teens (ages 13-16 years) and juniors (ages 17-21 years) consisting of 14 boys and 6 girls. That all components of the athlete's physical condition have successfully met the previously targeted success criteria. further research is expected to involve more samples and investigate factors of mental training, analyzed by gender, and so on to enrich studies on physical training on athlete seeds.

CONFLICT OF INTEREST

The author hereby declares that this research is free from conflicts of interest with any party.

AUTHOR'S CONTRIBUTION

Saputra contributed to preparing concepts, formulating methods, and conducting research. Wafi contributed to processing the results, interpreting, and drawing conclusions. Sugiarto contributed to editing the final version.

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