The Effect of 3 KG Medicine Ball Training on Extracurricular Participants Ability of Passing

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ABSTRACT

The problem in this study is the ability of passing basketball students who are not optimal. This research is aimed at seeing influences of 3 kg medicine ball training on the passing ability of high school basketball students. This research method is experimental. The population of this study was 28 students at Seyegan 1 Public High School. The sample from this study was 20 male students taken with random sampling techniques. The instrument measures the basketball's passing ability using the AAHPERD passing test. The data analysis technique used is the independent sample t-test significant level α 0.05. The results showed that there was an influence of the 3 kg medicine ball exercise on the passing ability of high school extracurricular participants, as evidenced by the value of 10,513> 2,101.

Keywords: 3 kg medicine ball practice, passing ability, basketball

1. INTRODUCTION

Based on the opinion of Ahmadi (2007, p.13) that passing means passing the ball. Passing is the first basic technique[1]. With passing players can make moves to approach the basketball hoop for then shooting. Passing can be done quickly and hard, the important thing is the ball can be controlled by the friend who receives it. Passing can also be done softly. The type of passing depends on the overall situation, namely the position of friends, the situation of friends, time, and the tactics used. To be able to pass well in a variety of situations, players must master a variety of basic techniques to pass the ball well. In line with the opinion of Kosasih (2008, p.28) that passing is a basketball fundamental that is often overlooked for training[2]. A player is very important to develop passing skills for the success of his team.

Practice is a way for someone to enhance their potential. Through practice one can learn or improve movements in a technique in the sport that is involved (Singh, 2012, p.26) [3].

In the opinion of Irianto (2002, p.11) that training is the process of preparing athletes' organisms in a systematic way to achieve maximum quality achievement by being given regular, directed, increasing and repetitive physical and mental burdens[4]. The match is the culmination of the process of practicing training in sports, with the hope that athletes can perform optimally. To get optimal performance, an athlete is inseparable from the training process. Because the main purpose of training is to improve the athlete's functional and develop biomotor abilities to the highest standard (Hariono, 2006, p.6) [5].

The great weakness in extracurricular participants is in passing ability. Passing is still not good, this can be seen when playing passing by students that are still not well directed and move very slowly making it easier for opponents to steal the ball by cutting the direction of passing. In addition, the lack of school facilities and infrastructure that can be used to help basketball extracurricular activities such as the unavailability of medicine balls. With this weakness, it needs to be addressed in order to improve the mastery of basic techniques, especially basketball passing. To solve these problems it is necessary to determine and choose the right training in conform with the identity and substance to be trained. The selection of training must consider the time of availability of facilities and equipment needed. Determining the right training is very related to the training situation. Consideration of the use of certain exercises must pay attention to the conditions of the training process carried out.

In this study one passing exercise was applied, namely a 3 kg medicine ball exercise. Medicine ball training with a weight of 3 kilograms is a form of training to develop special movement patterns needed to increase arm power. Good arm power will greatly support passing to be faster and more accurate. The weighting of the medicine ball weight of 3 kg is chosen because it has a low impact on the method of training power (Sukadiyanto, 2010, p.128), making it suitable for beginners to develop passing abilities [6].

Explained by Faigenbaum & Mediate (2008, p.8) medicine ball exercises can be given to increase muscle strength, muscle power, coordination, agility, balance, and speed [7]. In line with the opinion of Stewart (2013,

p.9) that medicine ball is also known as a training ball or fitness ball made of rubber and makes it easier to practice using a ball [8]. Can also be called the body ball, ball stability and clown balls. Medicine ball practice is right for all levels of ability, age, development and sports. To be more effective, the program must be able to adapt to the movements of the exercise brach it self (Daniel, 2015, p.25) [9].

Medicine ball exercises have the aim of strengthening the muscles of the arms, shoulders and chest using external weights. According to Stewart (2013, p.11) medicine ball throwing is done to develop core strength, flexibility, specific sports abilities, total body power (power) and coordination [8]. This exercise can support improving basketball passing skills. Medicine ball throwing exercise is the development of muscle performance to contract in automating movement in the arm. This is due to the implementation process which is carried out using objects in the form of balls to be released from the hands. The process of implementing the practice of throwing a medicine ball is more inclined to be able to contract movement in the muscles of the arm. Medicine ball training also trains the body to function as a unit instead of isolating individual muscles or muscle groups and allows various simple exercises towards complex movements (Davis, Kang, Boswell, Dubose, Altman, & Binkley, 2008, p.1958-1959) [10].

Related to the previous explanation, this study was conducted to determine the effect of the 3 kg Medicine Ball Exercise on the Passing Ability of High School Extracurricular Participants.

2. METHODS

Experimentation is kind of this research. This experimental research is testing (validation), namely testing the effect of one or more variables on other variables. The experiment used in this study was an experimental method using the T test.

The place used to conduct research is the basketball field of SMA N 1 Seyegan used to practice by extracurricular participants at SMA N 1 Seyegan. This experimental research was conducted 18 meetings with the beginning of the pretest and ending with the posttest. The study was conducted in September 2016 until October 2016. The frequency of training 3 times a week with a duration of exercise 1 hour 30 minutes per one meeting.

The population used in this study were 28 extracurricular members of SMA N 1 Seyegan. The total sample of 20 people taken using simple random sampling technique. Data analysis technique used for hypothesis testing is analysis using the T test. Hypothesis testing is performed with a significance level of α 0.05.

3. RESULT AND DISCUSSION

Data from this research came from of post test data which is a general description of each variable related in the study. The pretest and posttest data on the basketball passing ability test results are presented in Table 1 as follows:

Practice	Pretest		Posttest	
	statistics	Result	statistics	Result
Medicine Ball 3 kg	Total	398	Total	427
	Average	79.60	Average	85.40
	SD	1.517	SD	1.817
	Total	360	Total	385
	Average	72.00	Average	77.00
	SD	1.225	SD	1.581

level of 5% or 0.05. For more details, see appendix 13. Summary of the data is presented in Table 2 as follows:

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		10
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.63164024
Most Extreme Differences	Absolute	.142
	Positive	.142
	Negative	-.123
Test Statistic		.142
Asymp. Sig. (2-tailed)		.200
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Based on the SPSS output table in Table 2, it is known that the Asymp significance value. SIg. (2-tailed) of 0.200 is greater than 0.05. In accordance with the basis for decision making in the normality test, it can be concluded that the data are normally distributed. Thus, the assumptions or normality requirements in the regression model have been fulfilled. To see the independent samples T-Test test can be seen in Table 3 and Table 4.

Table 3. Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Passing Ability	Pretest	10	69.70	2.830	.895
	Postest	10	89.60	5.275	1.668

Table 4. Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Passing Ability	Equal variances assumed	6.793	.018	-10.513	18	.000	-19.900	1.893	-23.877	-15.923
	Equal variances not assumed			-10.513	13.786	.000	-19.900	1.893	-23.966	-15.834

Based on the results on Table 3, it is known that the amount of data from the pretest and posttest results is 20 people. The mean value for the pretest was 69.70, while for the posttest was 89.60. So, from the results of descriptive statistics, there is an average discrepancy passing ability at the pre-test and post-test. Based on the output in Table 4, the same difference assumed section of the Sig. (2-tailed) of 0,000 <0.05, In turn, this outcome was decided regarding the proposed hypotherical receipt that Ho is rejected and Ha is accepted. So, it is conclusive that there is a significant difference between the average results of the passing ability of students on the pre-test and post-test. Obtained that t count 10,513, and t table 2,101. So that it can be seen t count is greater than t table that is 10.513> 2.101. So based on decision making through comparison of the value of t arithmetic and t table, it can be concluded that Ho is rejected and Ha is accepted, which means there is a difference in the average passing ability between pretest and posttest, thus it is clear that there is an influence of 3kg medicine ball on the passing ability of extracurricular participants High school. This is supported by Sarwono's opinion (2015: 152) if the value of t arithmetic> t table then Ho is rejected and Ha is accepted, which means there is an influence of the 3 kg medicine ball exercise in increasing the passing ability of high school basketball extracurricular participants.

4. CONCLUSION

Based on research obtained from data analysis, Presumably there was a significant impact between the 3 kg medicine ball exercise on the passing ability of high school extracurricular participants. There is an average difference between the pretest and posttest results.

For researchers who intend to continue or replicate this research it is recommended to exercise more stringent control in the entire set of experiments. This control is carried out to avoid threats from external and internal validity.

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