



ANALYSIS OF PHYSICAL ACTIVITY OF HOME SCALE BASED SAQ (SPEED, AGILITY, QUICKNESS) IN THE TIME OF ADAPTATION TO NEW HABITS (AKB) FOR INCREASE IMMUNE

Fakhri Fajrin Kurniawan^{1*} Yayan Wardiyanto²

^{1,2}Department of Sport Science, Faculty of Health Sciences, Universitas Muhammadiyah Cirebon, Jawa Barat, Indonesia

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Abstract

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Physical activity of home-scale based SAQ (Speed, Agility, Quickness) is knowing body movements such as walking, running, jumping, but always requires energy. Athletes are required to maintain physical fitness and maintain body immunity, during the Covid-19 pandemic during the Adaptation of New Habits (AKB). Physical activity of home-scale based SAQ (Speed, Agility, Quickness) is very good for boosting the body's immune system during Adaptation to New Habits (AKB). This research analyzes physical activity of home scale based SAQ (Speed, Agility, Quickness) in the time of adaptation to new habits (AKB) for increased immunity. This is an observational study with case control design. The sample of this study consisted of 20 case groups and 20 control groups selected from the best athletes in Cirebon Regency. The research instrument was a physical fitness test and a physical activity questionnaire for basketball athletes in Cirebon Regency. The results of this study indicate that physical activity has a significant risk factor for increasing body immunity, this can be seen from the Odds Ratio (OR) value of 8.181 with 95% Confidence Interval (CI) of 3.181-21.035. So about 62.5% of the total respondents studied have high physical abilities. While the results of the home-scale physical statistical test based on SAQ (Speed, Agility, Quickness) then the Odds Ratio (OR) value is 14,578 with 95% Confidence Interval (CI) 5,083-41,809, this shows that basketball athletes who physically scale at home SAQ (Speed, Agility, Quickness) experienced better physical improvement compared to those who carried out normal physical activities in the Covid-19 pandemic situation. The conclusion of this study is that home-scale physical activity based on SAQ (Speed, Agility, Quickness) during Adaptation of New Habits (AKB) can improve the body's immune system.

INTRODUCTION

The activities of each athlete in carrying out daily activities are mostly outside the home, not only doing their personal activities, but doing sports activities at the training ground. In sports achievements, especially athletes who are undergoing various training programs for a championship. Exercise time is carried out at least 3 times a week, with morning or evening training, with the duration of training generally reaching 2 hours per training session.

Physical activity is a body movement activity caused by muscle performance to increase power and energy. Muscle performance that occurs as a result of a movement performed, either without tools or using tools. Weight training has an impact on changes in muscle structure in storing calorie reserves to support physical performance. (Akhmad, 2015). If seen from this, physical activity is needed by all athletes, because physically an athlete must stay fit during the training program, so a structured and systematic training process is needed to maintain a level of physical fitness.

Physical activity of home scale based SAQ (Speed, Agility, Quickness) is a series of body movements such as walking, running, jumping, jumping, but always requires energy. Meanwhile, other expert opinions reveal that planned and structured physical activity that involves repeated body movements and is intended to improve physical fitness is called exercise. Physical activity is needed to maintain a balance between the body's energy intake and expenditure and to prevent excess fat and obesity. (Guyton A. et al., 2011). Various other experts argue that physical activity is an important component in daily life to support one's health, but some people feel they do not find the desire or urge to do

physical activity while others feel happy when doing physical activity. (Palguna, Adiatmika, dan Dinata, 2020). Everyone should understand that physical activity is equally related to VO₂ marks which means that the higher a person's activity, the higher VO₂ marks. (Lestari, et al., 2020). This SAQ exercise has been developed and used for a long time, namely since the 1980s, originating from the United States. In recent times, SAQ exercises have become an inspiration and are widely used by other sports (Soemardiawan dan Yundarwati, 2018). SAQ (Speed, Agility, Quickness) which includes speed is fast-paced work that includes suppressing activities in the shortest possible time. That the increase in speed is the subject of all influencing factors, especially technical aspects and psychological factors. The principle of speed training basically avoids the development of lactic acid formation by providing adequate recovery between repetitions. In addition, speed training should be ended immediately when there is a change in technique due to exhaustion. Agility is the ability to change direction or position of the body quickly and perform other movements. Speed is the speed of action (without stimulus), or reaction; optical-acoustic-tactical reactions (such as kicking motions, hitting, sitting, sleeping standing, moving in various positions; whether started with a stimulus or without a stimulus). Can be carried out with simple reactions or complex reactions. Broadly speaking, all sports related to physical activity will increase fitness and also immunity, depending on how much intensity and volume you do in exercising. (Prayoga, 2020).

For certain sports that rely on physical activity, this SAQ exercise can be used as an exercise menu to improve physical abilities in a planned and structured manner that involves repeated

body movements with the aim of improving physical condition, so that it can support physical abilities in sports.

The physical activity of most athletes has been hampered in recent months, this is due to the Covid-19 pandemic. So that athletes who are used to doing outdoor exercises and undergoing their training program, must stay at home. With the absence of having to carry out activities at home, new problems begin to arise, due to changes in the exercise program, so that the physical condition, immunity, and fitness of the athlete's body will decrease.

The increasing transmission of Covid-19 which of course greatly disrupts the activities of every athlete. Activities that can normally be done outdoors must be limited to reduce the spread of Covid-19. Whether it's daily activities, athlete training in the training area, both in the open space and in the gym. In carrying out each of these activities, of course, involves physical activity in it. Of course, if these activities are not carried out, then physical abilities will continue to decline. So to start training again, you have to do another anatomical adaptation. The most dangerous risk is the decline in everyone's immune system.

The adaptation of new habits policy (AKB) regulates how stakeholders in districts/cities in Indonesia, especially in West Java Province carry out activities in public spaces while still paying attention to the vigilance of the transmission of Covid-19. This policy is expected that everyone will increase awareness to carry out activities by adapting to new habits, namely activities based on the Covid-19 prevention health protocol. Cirebon is located as a Regency in West Java that implements the adaptation of new habits policy (AKB). Based on observations and literature studies conducted by researchers, it was

found that: 1) West Java Government issues a new habit adaptation policy (AKB) as a response to the implementation of the new normal order that applies in cities and regencies in West Java Province (Dian Herdiana, 2020), 2) In Java, reported cases and deaths increased throughout 2020 despite intensive control measures. (Bimandra A Djaafara, 2020), 3) Strengthen the body's defenses or innate immunity is the body's defense mechanism against the coronavirus (Sri Sumarmi, 2020), 3) required analysis of physical activity of home scale for increased immunity.

Body Immune

Immune can be defined as the body's resistance to disease, especially infection. (Sumarmi, 2020). The body system as a whole has a system to fight foreign objects that enter the body that can interfere with health, this is the job of the immune system. Infections in the body can be caused by bacteria or viruses or other microorganisms. Immunity is a system of the human body's immunity to ward off all kinds of diseases that enter the human body (Gumantan, 2020). Based on the opinion of these experts, it can be concluded that immunity is the body's resistance to disease, especially infection if there are foreign objects that enter the body that can interfere with health.

As such, athletes must maintain their body fitness and maintain their immune system, despite the Covid-19 pandemic conditions during the New Habit Adaptation (AKB) period, so that athletes stay fit, so that the training program undertaken to face the championship is in accordance with the initial target set. . So it takes physical activity every day. Physical activity of home scale based SAQ (Speed, Agility, Quickness) is very good for increasing the body's immune system during the

Adaptation to New Habits (AKB). Therefore, researchers are interested in researching in the analysis of home-scale Physical activity of home scale based SAQ (Speed, Agility, Quickness) during the Adaptation of New Habits (AKB) to improve the body's immune and body fitness of every athlete.

METHODS

The research was carried out for 3 months (August-October) 2021 in Cirebon Regency, West Java Province. The design of this study was non-experimental with a case-control approach. This study aims to determine Physical activity of home scale based SAQ (Speed, Agility, Quickness) during the Adaptation of New Habits (AKB) to improve the body's immune system where researchers try to analyze, describe, and interpret the conditions that occur if there is an increase. Primary data collection is done by giving a questionnaire. In conducting data analysis, researchers used Odds Ratio (OR) analysis which was preceded by cross tabulation (crosstab) between variables.

The research subjects were basketball athletes in Cirebon Regency, with a purposive sampling technique, with a total of 40 athletes. The criteria set are: 1) Basketball athletes fostered by Cirebon Regency, and 2) Basketball athletes 16-18 years.

RESULT

Analysis of the results of this study using univariate analysis and bivariate analysis. Data analysis was performed using Odds Ratio (OR) which was preceded by cross tabulation (crosstab) between variables. As for the results of research on basketball athletes in Cirebon Regency, there is a distribution of subject

characteristics based on gender which can be seen in table 1.

Table. 1 Frequency Characteristics of Athletes by Gender

Gender	Case		Control		Amount
	n	%	n	%	
Male	10	50	10	50	20
Female	10	50	10	50	20
Amount	20	100	20	100	40

Based on the results of the table above, it is known that the respondents in the case group were 20 athletes (50%), while 20 athletes (50%) were female. In the control group there were 20 athletes (50%) for male and 20 athletes (50%).

Table. 2 Characteristics of Athletes Frequency by Age

Gender	Case		Control		Amount
	n	%	n	%	
17 years old	3	15	3	15	6
18 years old	12	60	12	60	24
19 years old	5	25	5	25	10
Amount	20	100	20	100	40

Based on the results of the table above, it was found that respondents according to age group in this study used matching, so that the number of age groups in cases and controls was the same, for the 17 year old group there were 3 athletes (15%), the 18 year age group was 12 athletes (60%) , and the age group of 19 years as many as 5 athletes (25%).

Table. 3 Analysis of Physical Fitness of Basketball Athletes in Cirebon Regency

Characteristic s of Respondents	Category	Amount	
		N	%
Physical Fitness Test	Very Good	17	42,5
	Good	12	30
	Enough	9	22,5
	Less	2	5

Very Less	0	0
Amount	20	100

Based on the results of the table above, the Indonesian Physical Fitness Test was carried out which was adjusted to the scale of the house. The test categories are: sit up test, vertical jump test, jump test in place with a rope (skipping), it was found that athletes were in the very good 42,5% category, 30% good category, enough category is 22,5%, less category is 5% and very less category is 0%. If it is accumulated, those who have a high level of fitness by combining very good and good categories are 29 athletes with a presentation of 72.5%, while those who have a low level of fitness by combining sufficient and less categories are 11 athletes with a presentation of 27.5%.

Table. 4 Analysis of Physical Activity in Basketball Athletes in Cirebon Regency

Characteristics of Respondents	Case		Control		
	n	%	N	%	
Physical Activity	High Physical Ability	16	64	9	36
	Low Physical Ability	4	26,7	11	73,3

Based on the results of the table above shows the characteristics of the research sample consisting of the level of physical ability of athletes. The number of research samples was 40 athletes, with case athletes consisting of 20 respondents and control 20 respondents who had high physical abilities and low physical abilities. As in the table above, it was obtained through calculations using the formula from the International Physical Activity Questionnaire with the results of the number of samples of physical activity, namely for the group with high physical ability as many as 16 respondents (64%), in the control as many as 9 respondents (36%). As for the low

physical ability group in the case as many as 4 respondents (26,7%), and in the control as many as 11 respondents (73,3%).

Table. 5 Home Based Scale Physical Analysis SAQ (Speed, Agility, Quickness)

Characteristics of Respondents	Case		Control		
	n	%	n	%	
Physical Activity	High Physical Ability	17	60,7	11	39,3
	Low Physical Ability	3	25	9	75

Based on the results of the table above, it shows the characteristics of Physical Activity of home scale based SAQ (Speed, Agility, Agility). With a research sample of 40 respondents, from the case group consisting of 20 respondents and the control group 20 respondents who had high physical abilities and low physical abilities. The number of samples by group in the case of high physical ability was 17 respondents (60.7%) and the control group was 11 respondents (38.3%). While the low physical ability of the case group was 3 respondents (25%) and the control group was 9 respondents (75%).

Table. 6 Physical Analysis To Improve Body Immune

Physical Activity	Case		Control		Physical Fitness		OR	95% CI	
	n	%	n	%	n	%		LL	UL
High Physical Ability	16	64	9	36	2	62			
Low Physical Ability	4	26,7	11	73,3	1	37	8,1	3,18	21,0
Amount	20	100	20	100	4	10			

Based on the table above, it was obtained that data analysis of 40 respondents consisted of the High Physical Ability group and the Low Physical Ability group. In the High Physical Ability group there are 16 respondents (64%) in cases and there are 9 respondents (36%) in the control, while in the Low Physical Ability group there are 4 respondents (26.7%) in cases and there are 11 respondents (73.3 %) in the control.

From the results of statistical tests, the Odds Ratio (OR) value is 8.181 with 95% Confidence Interval (CI) 3.181-21.035 by showing the value between the lower limit and upper limit which does not include the value 1. So the hypothesis proposed is accepted with the risk that it is said to be significant.

Tabel. 7 Physical Analysis of Home Scale Based SAQ (Speed, Agility, Quickness) To Improve Body Immune

Physical Activity of Home Scale Based SAQ (Speed, Agility, Quickness)	Case		Control		Physical Fitness		95% CI	
	n	%	n	%	n	%	LL	UL
High Physical Ability	16	64	9	36	2	70		
Low Physical Ability	4	26.7	11	73.3	2	8	14,578	5,083-41,809
Amount	20	100	20	100	4	100		

As the table above shows, the data analysis shows that 40 respondents consist of the High Physical Ability group and the Low Physical Ability group. In the High Physical Ability group, there were 17

respondents (60.7%) in cases and 11 respondents (39.3%) in controls. While the samples of the Low Physical Ability group were 3 respondents (25%) and the control group was 9 respondents (75%).

From the statistical test results, the Odds Ratio (OR) value is 14,578 with 95% Confidence Interval (CI) 5,083-41,809 by showing the value between the lower limit and the upper limit which does not include a value of 1, then the hypothesis is accepted with a significant risk.

DISCUSSION

Based on the results of research conducted, it shows that physical activity carried out by basketball athletes in Cirebon Regency has a significant risk factor for increasing body immunity, this can be seen from the Odds Ratio (OR) value of 8.811 with 95% Confidence Interval (CI) 3.181- 21,035. It can be concluded that about 62.5% of the total respondents studied have high physical abilities. For an athlete, physical activity is a major need, this is because physical activity has a very large influence on the athlete's best performance. If an athlete does not have a good physique, then his technical and other abilities will not be maximized, and the results obtained will not be achieved. As researchers have observed, there are still many athletes who do not carry out physical activities at home due to the Covid-19 pandemic plus a lack of supervision from coaches. This is because most of the routines are done at home, without the full supervision of the coach. In addition, in this study there were still respondents who had low physical abilities as many as 4 athletes (26.7%). Factors that cause this are rarely trained physical, poor lifestyle, anatomy and physiology, mental factors of athletes.

Based on the results of data analysis, it shows that there are 40

respondents in the high physical ability group in the SAQ-based home-scale physical case (Speed, Agility, Quickness) with a total of 17 respondents (60.7%) high physical ability and 11 respondents (39.3%) in control. While the case sample with low physical ability was 3 respondents (25%), and control was 9 respondents (75%).

From the results of statistical tests, the Odds Ratio (OR) value is 14,578 with 95% Confidence Interval (CI) 5,083-41,809, this shows the value between the lower limit and the upper limit which does not include a value of 1, so that the hypothesis is accepted with the resulting risk is said to be meaningful. . The Odds Ratio (OR) value of 14,578 indicates that home-scale physical basketball athletes based on SAQ (Speed, Agility, Quickness) with high physical abilities experience better physical improvement than those who carry out normal physical activities in the Covid-19 pandemic situation. . This is due to the large number of movements performed during SAQ (Speed, Agility, Quickness) based physical activity. At the time of the interview, many basketball athletes gave their opinion about SAQ-based physical activity (Speed, Agility, Quickness), that is, physical activity is maintained even though it is only done at home. This is an alternative to continuing to follow the training program even in the Covid-19 pandemic situation.

CONCLUSION

From the results of the above study on the analysis of home-scale physical activity based on SAQ (Speed, Agility, Quickness) during adaptation to new habits (AKB) to increase body immunity, it can be concluded that home-scale physical activity based on SAQ (Speed, Agility, Quickness) in adaptation of new habits (AKB) can increase the

level of physical fitness of athletes and increase immunity, so that even though physical activity is carried out at home, physical activity is maintained, and it becomes an alternative to continue to follow the exercise program even in the period of adaptation to new habits (AKB).

Based on the results of the study, it can be concluded that of the 40 basketball athletes in Cirebon Regency, West Java Province, most of them feel healthy and fit after doing SAQ-based home-scale physical activity (Speed, Agility, Quickness) during the New Habit Adaptation (AKB) period. so that it can increase immunity.

Suggestion

Based on the results of this study, it is hoped that this can be a new lesson regarding home-scale physical activity based on SAQ (Speed, Agility, Quickness) during the Adaptation of New Habits (AKB) to improve the body's immune system. Furthermore, for researchers, this research can be developed and can be used as a comparison material for research focus with the variables studied, namely genetics and body immunity. Then for coaches, sports teachers, coaches, or athletes, this research can be used as an alternative exercise to maintain physical condition during the Adaptation to New Habits (AKB).

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