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EFFECT OF 12 WEEKS SAQ AND CIRCUIT TRAINING ON DRIBBLING AND SHOOTING ABILITY OF SOCCER PLAYER

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Abstract:
The research aims to find out the effect of 12 weeks SAQ and Circuit Training on skill ability of soccer players. The subjects were 30 males under 19 national level players. The selected players were divided into two different groups of SAQ and circuit group, consisting of 15 players each. Proper consent was taken from all the players and baseline data were collected before starting the training program. After the baseline collection, the players underwent the treatment for 12 weeks SAQ and Circuit Training for one hour each day for four days a week. The significant changes were found from baseline to post treatment in each player on Skill ability. The significant increase in shooting and dribbling were observed. The results indicate SAQ and Circuit Training program is an effective training program for soccer players to enhance their shooting and dribbling ability.

Keywords: proficiency, treatment, baseline, SAQ and circuit, dribbling, shooting

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1. Introduction

Soccer is a sport that requires high-intensity, alternating activity to be undertaken over an extended period of time. Moreover, in rigorous daily training sessions, players are intricate in additional commitments such as national cups and other matches. Sports training is typically grounded upon the modest motive. All the countries are trying to accomplish highest neck and neck performance and to bring glories on international competitions. Nowadays, records are proved to be lower performance of tomorrow. This is because greater stress has been laid on the quality rather than quantity training (Watron, 1983). It is always assessed, planned, organized and implemented by a coach or a sports trainer. Sports training has a nature called dynamic which continuously goes on purifying until the perfection is bring on. Simultaneously, it is deliberately carried out in such a way that optimal advance of temperament of sportsman takes place. The goal of sports training is improving the performance of sports persons. The performance hinge on numerous factors like structure, condition, technique, tactics, coordination and personality.

The sports training aims of finding unseen assets and makes two-sports person couture it. It also aims at gather development of the reserves. The sports persons can able to control their day today routine in such a manner that they are able to do training one or twice a day of high effect. Sports training is basically an bequeath process and so, it attempts to develop all the aspects of personality. It is a continuous process of perfection improvement and creation of means of methods of improving sports performance and factors of performance. In this modern world different training methodology and various form of training are available. Its greatly rely on the coach according to individual difference in ability of individual coaches planed and trained the players. As stated above training method should be different to improve the individual performance, for the study researcher have chosen SAQ and circuit as training method of 12 weeks to fulfil the objectives i.e., to find out the effect of 12 weeks SAQ and Circuit Training on dribbling and shooting ability of soccer player.

2. Methods

The present study was conducted on thirty elite soccer players at Poloi Academy of Manipur, India, U-19 national players (average age 16.87±1.13 years; average weight 61.87±5.94 kg; height 172.82±5.18cm) played for the last 3-4 years regularly in competitions and participate in national level competition. Players were divided into two group i.e., SAQ group and circuit group, each group consist of fifteen players. Players were well informed and given a proper explanation about the study procedure, and informed consent was collected from academy, individuals, and parents. The study protocol was retained for every participant. All the selected players for the study underwent the SAQ and Circuit Training of 12 weeks after the baseline data collection [12-14]. The study was conducted during June-October 2022. The Institutional Human

Ethical Committee of Tripura University approved the protocol adopted for the study (Ref: TU/IHEC/3/1/22) invariant with the necessity for human experimentation per the declaration of Helsinki. Skill ability, namely shooting and dribbling, were investigated in this study. The details of the SAQ and Circuit Training program, followed by the players, are described in Table 1.

Table 1: Blueprint of SAQ training

S. No	Exercise	Repetitions			Sets	Total duration
		1-4 weeks	5-8 weeks	9-12 weeks		
1	Scissor hop	3-4	4-5	5-6	3	1:00 hrs
2	Single leg lateral run	3-4	4-5	5-6	3	
3	Forward 2 in an out	3-4	4-5	5-6	3	
4	High knee run	3-4	4-5	5-6	3	
5	2 step backward drill	3-4	4-5	5-6	3	
6	Hurdle fast leg	3-4	4-5	5-6	3	
7	Flying sprint	3-4	4-5	5-6	3	
8	Carioca	3-4	4-5	5-6	3	

S. No	Exercise	Repetitions			Sets	Total duration
		1-4 weeks	5-8 weeks	9-12 weeks		
1	Push up	25-30sec	35-40sec	40-45sec	3	1:00 hrs
2	High knee	25-30sec	35-40sec	40-45sec	3	
3	Plank	25-30sec	35-40sec	40-45sec	3	
4	Burpee	25-30sec	35-40sec	40-45sec	3	
5	Butt kick	25-30sec	35-40sec	40-45sec	3	
6	Mountain climbing	25-30sec	35-40sec	40-45sec	3	
7	Skipping	25-30sec	35-40sec	40-45sec	3	
8	Sit up	25-30sec	35-40sec	40-45sec	3	

Source: P. Senthil Kumar, 2015.

2.1 Procedure of data collection

For collecting the data of Shooting and Dribbling Mor-Christian General Soccer Ability Skill Test Battery were used. Mor-Christian General Soccer Ability Skill Test Battery (Mor & Christian, 1979) is one of the soccer tests that evaluate passing, dribbling and shooting ability in soccer. All the players were well informed to report at the early morning in Poloi Academy, Manipur. Players were well instructed about the nature of the test and gave demonstration about the test procedure. The data was collected by researcher himself and along with the coaches of the academy and other experts in the field.

2.2 Statistical analysis

The collected data was analyzed descriptively and inferentially. Descriptive analysis of mean, Std were conducted while inferential statistic of pair sample T-Test was carried out with significant set at 0.05 level.

3. Result

The study was conducted to determine the effect of 12-weeks SAQ and Circuit Training of Skill Proficiency in Soccer by comparing the baseline data and post treatment data of U-19 elite level players. The statistically analyzed the data collected from 30 selected subjects are discussed below.

Table 2: Descriptive comparison on the effect 12 weeks SAQ training on shooting and dribbling ability of a soccer player

Parameters	N	Test	Mean	SD	SEM	t-Value	p-Value	% of Change
Shooting	15	Pre test	37.73	12.82	3.31	3.34	.005	47%
		Post test	50.26	11.94	3.08			
Dribbling	15	Pre test	18.88	1.44	.37	7.50	.000	19%
		Post test	15.27	1.05	.27			

We observed a remarkable development in execution of skill when compare the data of baseline to the post treatment. Table 2 provides the effect of SAQ training on shooting and dribbling ability. The Circuit Training increases the performance in shooting ability depicted the statistical mean value and SD of (37.73±12.82) and (50.26±11.94) at pre and post data collection respectively. Further pair sample t test has been performed to find the significant difference which is significant (p=.005) at 0.05 level of significance. The same practice has been applied to dribbling skill after pre and post data collection. The observed mean value and SD of dribbling are (18.88±1.44) and (15.27±1.05) for pre and post collection respectively

Table 3: Descriptive comparison on the effect 12 weeks Circuit Training on shooting and dribbling ability of soccer player

Parameters	N	Test	Mean	SD	SEM	t-Value	p-Value	% of Change
Shooting	15	Pre test	37.33	12.15	3.13	6.78	.000	48%
		Post test	50.80	8.93	2.30			
Dribbling	15	Pre test	19.20	1.18	.30	8.37	.000	17%
		Post test	15.79	1.09	.28			

The results in the Table 3 depicted the significant improvement in both skill ability. The mean and SD observed in the shooting ability of circuit during pre-data collection were (37.33±12.15) which shows a significant improvement on shooting in the post treatment with the value of (50.80±8.93). The significant difference was observed when we compared pre to post at significant level of 0.05. However, in case of dribbling we observed certain reduction in the value of mean when compared to pre and post (19.20±1.18) and (15.79±1.09) respectively. The result reveals a significant improvement in dribbling as the unit of measurement was in time and best score was given when taken a shortest time during the completion of the specific test of dribbling. The result also shows a significant at 0.05 level.

Table 4.4: Comparison on effectiveness of SAQ and circuit training on skill ability of soccer players

Source of Variance	Treatment	Adjusted Mean	Mean Difference	SS	df	MS	F	Sig.
Between	SAQ	32.746	-5.77	4.996	1	4.996	.038	.847
	Circuit	33.323						
Within				7592.009	57	133.193		

Table 4.4 reveals that insignificant difference exists between the SAQ and Circuit group on effect of SAQ and Circuit Training on skill ability of soccer players. The F value for the adjusted post-test mean was .038 and p-value is greater than 0.05 level of significance for the degree of freedom 1 and 27. Hence it is concluded as there is no any significance difference observe on the effectiveness of skill ability after exposing to 12 weeks SAQ and circuit training. Though both the training method has given significant improvement

4. Discussion

The results of this study showed that the subjects participated in SAQ training and Circuit Training for the period of twelve weeks were able to improve their performance shooting ability. In support of the present study many authors have carried out different studies. According to Weineck (2000), agility along with quickness and speed during the first three steps represent the most significant motor ability of a soccer player. Similar studies were carried out resulting to same conclusion i.e., (Bloomfield et al., (2007). Polman et al., (2004) have tended to show that SAQ training methods have a positive impact on power, speed and quickness these did not consider agility with and without the ball. This result is like a contract with Polman et al., 2004 who established that SAQ training was operative in the physical conditioning of female soccer players due to a significant improvement in lateral agility. Therefore, speed, agility and quickness can be viewed as autonomous motor abilities, which have partial influence on each other, and thus specific training is required for each (Little and Williams, 2006).

The SAQ group and circuit group shows a certain change after the training of 12 weeks SAQ and circuit training. However, SAQ has given an advance improvement from the Circuit Training in dribbling when compare to both training. Similar study quoted in the shooting ability reported that agility is one of the important components of fashionable soccer, which demands a high level of endurance, power performance and agility. Jeffreys (2004), Meckel et al. (2009. Jovanovic et al. (2011) suggest a tendency for emphasis on non-specific endurance and power training and less emphasis on agility. The main purpose and goal of SAQ training is to develop the individual reaction timing ability, change of direction and coordination. The mention component is having a fine and tune relationship with the overall dribbling ability. According to Suresh (2021), twelve weeks of SAQ with resistance training program significantly improved dribbling ability of tribal football players. Similar studies were carried out by Annadurai (2021) over the basketball players and it was reported that dribbling ability improved

significantly due to effects of SAQ training. Due to the influence of SAQ training significantly improved dribbling ability of inter collegiate basketball players. The results of the present study indicated that SAQ training is more efficient to bring out desirable changes over the dribbling ability U-19 Soccer players. The results of this study support the use SAQ training programmed which is highly scientific and systematic in nature because of which optimal adaptation and improvement in skills performance has been seen. According to Maiyappan (2022), SAQ training program is an effective way of training which improve the various components related to the advancement of skill abilities. It enhances the dribbling ability of an individual after an effective training program. The training stimulates changes in the dribbling abilities and overall performance too. Therefore, monitoring the performance and having a profile study of player will help in constructing different training administrative protocol.

5. Conclusion

This work demonstrates the induced significant change in some selected skill abilities after 12 weeks endurance training over soccer players. In addition, it has been suggested that the skill abilities required proper training program to induced the change. Therefore, endurance and speed-based Circuit Training is an effective way to alter and make changes in the skill ability which in turn boost the performance of an individuals. Nevertheless, further clinical investigation is required elucidate and define the specific contribution and role in improvement of individual performance and skill. Data provided in this study are unique and important for professional soccer players because of their intense workout schedule of training.

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Author contribution
All authors have contributed equally to the study design, data analysis, presentation of results, and drafting and revising of the original manuscript. All authors have read and approved the final sort of the manuscript.

Conflict of interest
The authors declare no conflict of interest.

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References

Bloomfield, J., Polman, R., O'donoghue, Peter, & McNaughton, Lars. (2007). Effective speed and agility conditioning methodology for random intermittent dynamic type sports. The Journal of Strength & Conditioning Research, 21(4), 1093-1100.

Diswar, S. K., Choudhary, S., & Mitra, S. (2016). Comparative effect of SAQ and circuit training programme on selected physical fitness variables of school level basketball players. International Journal of Physical Education, Sports and Health, 3(5), 247-250.

Jovanovic, M., Sporis, G., Omrcen, D., & Fiorentini, F. (2011). Effects of speed, agility, quickness training method on power performance in elite soccer players. The Journal of Strength & Conditioning Research, 25(5), 1285-1292.

Little, T., & Williams, A. G. (2005). Specificity of acceleration, maximum speed, and agility in professional soccer players. The Journal of Strength & Conditioning Research, 19(1), 76-78.

Maiyappan, S. (2022). Effect of Isolated and Combined Interval Training and Yogic Practices on Selected Physical Fitness Physiological and Skill Performance Variables among Coastal Area Kabaddi Players (Doctoral dissertation, SRM Institute of Science and Technology).

Mikkola, J., Rusko, H., Nummela, A., Pollari, T., & Häkkinen, K. (2007). Concurrent endurance and explosive type strength training improves neuromuscular and anaerobic characteristics in young distance runners. International journal of sports medicine, 28(07), 602-611.

Milanovic, Z., Sporis, G., Trajkovic, N., James, N., & Samija, K. (2013). Effects of a 12-week SAQ training programme on agility with and without the ball among young soccer players. Journal of sports science & medicine, 12(1), 97.

Polman, R., Bloomfield, J., & Edwards, A. (2009). Effects of SAQ training and small-sided games on neuromuscular functioning in untrained subjects. International journal of sports physiology and performance, 4(4), 494-505.

Polman, R., Walsh, D., Bloomfield, J., & Nesti, M. (2004). Effective conditioning of female soccer players. Journal of sports sciences, 22(2), 191-203.

Ramos-Campo, D. J., Andreu Caravaca, L., Martínez-Rodríguez, A., & Rubio-Arias, J. A. (2021). Effects of resistance circuit-based training on body composition, strength and cardiorespiratory fitness: a systematic review and meta-analysis. Biology, 10(5), 377.

Reilly T., Ekblom B. (2005). The use of recovery methods post-exercise. J Sports Sci. 6:619–27.

Young, W. B., & Willey, B. (2010). Analysis of a reactive agility field test. Journal of Science and Medicine in Sport, 13(3), 376-378.