

EFFECT OF NINE WEEKS OF SAQ TRAINING PROGRAMME ON SELECTED BIO MOTOR ABILITIES OF MALE KHO-KHO PLAYERS

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ABSTRACT

The purpose of this study was to investigate the effect of SAQ training for nine week on selected biomotor abilities (speed, agility and explosive power) of male kho-kho players. To achieve this 30 male kho-kho players were selected randomly from Department of Physical Education and Sports Sciences, SK University, Anantapuram. The selected subjects were assigned to 2 groups: SAQ training group (n=15) and control group (n=15). Speed, explosive power and agility were selected as criterion variables and tested by 50 meters sprint, standing broad jump test and 505 agility - test. The duration of the training prescribed in this study was nine weeks was carried out during preparatory phase. Pre and post data was measured on the indoor. The data was analyzed by applying Analysis of Covariance (ANCOVA) technique to find out the effect of SAQ training on selected biomotor ability of kho-kho players. The level of significance was set at 0.05. The adjusted post test means showed significance on speed [$F(1, 25) = 10.82, p < 0.003$], explosive power [$F(1, 23) = 32.84, p < 0.000$] and agility [$F(1, 23) = 42.83, p < 0.000$] indicating that SAQ training significantly improved the speed, explosive power and agility of kho-kho players compared to Control group. Improvement in SAQ training group was noticed in speed, explosive power and agility of male kho-kho players.

Key Words: Speed, Agility, Quickness, Training, Carioca Drills

INTRODUCTION

Athletes in repeated sprint sports like rugby, soccer, kho-kho, and hockey can differ in their skill levels based on their aerobic and anaerobic capacity, running speed, and agility, according to research. Therefore, training to develop these variables should also be taken into account. Consequently, the SAQ (speed, agility and quickness) method has to be implemented in kho-kho training. For this reason, the main purpose of this study was to investigate the effect of SAQ training for nine week on selected biomotor abilities (speed, agility and explosive power) of male kho-kho players. Speed is one of the basic components necessary bio-motor in some sports. Every sport activities both games, competitions, and games always require speed bio motor components. it is the ability of the complex, because in general, speed is an ability that allows a basketball player to move as quickly as possible at the level of specific resistance. Linear action such as acceleration and velocity can be influenced by changing the movement mechanism of the arms or legs. Exercise of speed, agility, and quickness cover the complete spectrum of training intensity, from low intensity to high intensity. Every athlete has a different level. Therefore, the

intensity of exercise should coincide with the individual's ability. Exercise involving speed, agility, and quickness is a training method aimed at developing motor skills and body motion control through the development of the neuromuscular system. . It aims to improve the athlete's ability to perform multi directional explosive power movements by reprogramming the neuromuscular system, so it can work more efficiently. Exercise of speed, agility, and quickness (SAQ) has become a popular way to train athletes. Speed, agility, and quickness to cover the complete spectrum intensity of exercise, from low intensity to high intensity. SAQ drills can also be used to teach movements, such as heating, or to improve the physical condition of athletes.

METHODOLOGY:

30 male kho-kho players were selected randomly from Inter-collegiate Kho-Kho players from, S.K University, Anantapuram, Andhra Pradesh. These players had more than 6 years of training experience and who took part in different levels of competition were enrolled. The selected subjects were assigned to 2 groups: SAQ training group (n=15) and control group (n=15). The selected subjects mean age: 18.12 ± 2.32 years; weight: 66.50 ± 8.22 kg; height: 170 ± 3.07 cm and BMI: 20.70 ± 3.47 kg/m². During the testing and training period, all individuals were told to abstain from engaging in any other type of training that would increase their quickness, explosive power, and agility. Table I lists the variables and tests that were chosen for the study.

Table - I: Variables and tests

No	Variables	Tests/Measures
1	Speed (sec)	50 meter
2	Agility (sec)	505 Agility test
3	Explosive power (cm)	Standing Broad Jump

Pre-test and post-test randomized group designs with control and experimental groups were employed in this investigation. SAQ training was provided to the experimental group for nine weeks while the impact on a subset of kho-kho players' biomotor abilities was investigated. Randomly, fifteen individuals were divided in to two groups. Over the course of nine weeks, the experimental groups underwent speed, agility, and quickness drills.

For nine weeks, SAQ training was conducted four times per week on an outdoor kho-kho court. The kho-kho coach oversaw the execution of this training. SAQ training sessions lasted an hour and consisted of 30 minutes of planned exercise and 15 minutes of general warm-up. To prepare the subjects physically and mentally to accept the precise load administered to them for the purpose of the study, the training began with one week of general physical conditioning for the SAQ training group. After one week of conditioning the SAQ training was administrated, which

include speed, agility, and quickness drills respectively for four days in a week i.e. (Monday, Tuesday, Thursday, and Saturday). The SAQ training schedule followed was different for each week (Table-II). These SAQ training drills and specific warm-up exercises were selected from book Training for speed, agility and quickness. Speed, agility and quickness drills cover the complete spectrum of biomotor skills, from basic and low intensity to complex and high intensity. The control group was not allowed to take part in the specific experimental training programme expect they had daily general warming up and had their normal activities.

Table - II: Nine-week program for SAQ Training Schedule

Needs	Week 1 (Drills) Volume: 1 sets/ 10 rep Work rest ratio: 1:3	Week 2 (Drills) Volume: 2 sets/ 12 rep Work rest ratio: 1:3	Week 3 (Drills) Volume: 3 sets/ 12 rep Work rest ratio: 1:3
Speed	“A” March Walk	“A” Skip for Distance	“A” Skip for Height
	“A” Form Runs (V)	Partner-resisted starts	Bullet Belts
Agility	20-Yard shuttle	Lateral 20-Yard shuttle (V)	T-Drill
	MB Wall Chest Passes	MB Overhead throw	MB Wall Scoop Toss
Quickness	Repeated Vertical jumps	Standing long jump	Triple Jump
Needs	Week 4(Drills) Volume: 1 sets/ 14 rep Work rest ratio: 1:3	Week 5 (Drills) Volume: 2 sets/ 14 rep Work rest ratio: 1:3	Week 6 (Drills) Volume: 3 sets/ 14 rep Work rest ratio: 1:3
Speed, agility & quickness	Squirm	X-Pattern multi-skill	Z-Pattern cuts
	Hexagon drills	5-Dots drill	21 Drills
Speed & Quickness	Quick feet	Hop Scotch drill to catch a pass (v)	One leg hop to dribble and jump shot(v)
	Repeated vertical jumps (V)	Vertical jump to sprint	Sprint to vertical jump
Agility & Quickness	Tap Drills	MB One handed tap drills with partner	Mirror lateral shuffle/pass
	Standup from 4 points to 20-yard shuttle	Standup from sitting position to Z- pattern run	Standup from lying position to T-drill
Needs	Week 7(Drills) Volume: 1 sets/ 16 rep Work rest ratio: 1:2	Week 8 (Drills) Volume: 2 sets/ 16 rep Work rest ratio: 1:2	Week 9 (Drills) Volume: 3 sets/ 16 rep Work rest ratio: 1:2
Speed, agility & quickness	Hurdle hops	Cone Weave	Carioca Drills
Speed & Quickness	Mirror drills	T Drills from sitting position	Shadowing Drills from laying position
Agility & Quickness	Sprint intervals with reaction drills	Agility Hops with Vertical jump to sprint	Cutting Drills from sitting and laying position

RESULTS AND DISCUSSION:**Table - III: ANCOVA for two groups before and after SAQ training effect on selected bio motor ability**

Variables	Testing conditions	SV	Sum of squares	Degrees of freedom	Mean-Square	Value (F)	Value (p)
Speed	pre	Between	0.084	1	0.084	1.624	0.213
		Within	1.453	28	0.052		
	Post	Between	1.172	1	1.172	12.57*	0.01
		Within	2.611	28	0.093		
	Adjusted post test	Between	0.692	1	0.692	10.82*	0.003
		Within	1.723	27	0.064		
Explosive power	pre	Between	3.333	1	3.333	0.357	0.555
		Within	261.46	28	9.338		
	Post	Between	172.80	1	172.80	15.19*	0.001
		Within	318.40	28	11.371		
	Adjusted post test	Between	208.68	1	208.68	32.84*	0.000
		Within	166.33	27	6.160		
Agility	pre	Between	0.069	1	0.069	0.247	0.623
		Within	7.838	28	0.280		
	Post	Between	2.220	1	2.220	11.45*	0.002
		Within	5.427	28	0.194		
	Adjusted post test	Between	2.768	1	2.768	42.83*	0.000
		Within	1.703	27	0.068		

Table III clearly demonstrates that there was no discernible difference between the SAQ and control groups in the pre-test results for speed, explosive power, and agility. The post-test revealed a noteworthy difference between the groups as well. the percentage of agility, explosive power, and speed improvements observed in the SAQ training group.

According to the main effect adjusted post test mean, SAQ training changed the speed, explosive power, and agility of kho-kho players in comparison to the control group.

Worldwide, coaches demand athletes with the speed, quickness, and explosive power that separate winners from losers. At the collegiate level, the level of competitiveness keeps rising. To maximize a player's performance, the coaches develop and use a variety of training techniques. The most important and obvious elements of kho-kho success are speed, agility, and quickness. The ultimate objective of a program to increase speed, agility, and quickness is an improvement in the capacity to react fast, apply large force rapidly in the appropriate direction, and redirect that force if necessary. Players of kho-kho improved their biomotor skills after nine weeks of SAQ training. The improved results of the SAQ group point to the possibility that, as a stand-alone strategy, this type of training could be a helpful addition to regimented conditioning regimens for team kho-kho players.

CONCLUSION:

The SAQ group greatly enhanced and improved kho-kho players' speed, explosive power, and agility when compared with the control group. This finding shows that this type of training in the physical conditioning regimens of trained players may be advantageous. However, further research is needed with top groups and other training approaches.

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