EFFECT OF OWN BODY EXERCISES AND SAQ TRAINING FOR THE DEVELOPMENT OF SELECTED PERFORMANCE PARAMETERS AMONG SCHOOL GIRLS

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ABSTRACT

The purpose of this study was to find out the effect of own body exercises and SAQ training for the development of selected performance parameters among school girls. The investigator selected for this study, Ninety (N=90) among the school girls. Randomly 90 female students were selected from various government schools of Yadadri (Dist) Telangana, India. Were selected as subjects and their ages were ranged from 11 to 14 years. They were divided into three equal groups and each group consisted of 30 subjects. Experimental Groups was given 12 weeks (Duration – 12 weeks, Session – 3 day/week, Duration of one session – One hour) of own body exercise training, SAQ training and control group was not participated any specific training. Experimental Group-I (OBET), Experimental Group-II (SAQ training) were given to the experimental groups. The subjects were tested in the selected criterion variables Vo2 max and anaerobic power were selected and measured step test and margarian kalaman test for this study. Before and after the training period the data were collected. The collected data was treated by using F-ratio. The level of confidence was fixed at 0.05 levels. The result shows that Vo2 max and anaerobic power of the selected subjects was significantly improved on experimental groups of due to the effect of own body exercises training and SAQ training.

Keywords:- Vo2 max and anaerobic power own body exercises training and SAQ training.

INTRODUCTION

There is great importance of games and sports in our life. The games make active and healthy and health is true wealth. Our body is like a machine and it helps to run a machine smoothly by providing it with proper exercise and strength. They teach us team spirit also. The importance of games and sports in maintaining our physical as well as mental health. They teach us cooperation in games, the player thinks for the whole team. The players develop the spirit of self-sacrifice. Games and sports also help in increasing the IQ of students and the ability of the mind. Young and interested people can have a bright carrier in the sports profession too. Participation in sports is helpful for everyone. We must regularly take part in at least one sport to stay fit and fine. Teachers and parents should also encourage children to participate in sports. (Siddharth Pandey, 2023).

METHODOLOGY

To start the present study the research scholar chooses ninety school girls from Pochampally, Yadadri District, Telangana and their age groups were from 11 to 14 years. The chosen school girls were randomly classified into three equal groups Own Body Exercise Training Group (OBETG), SAQ Training Group (SAQTG) and Control Group (CG).

Group I & II were known as experimental groups and group III was called as control group. Each group having thirty (30) school girls. Experimental groups were engaged to own body exercise training and SAQ training for a period of twelve weeks and control group did not went in any kind of training program apart from their regular routine. These subjects were tested twice prior and after the prescribed training period to find out the significant improvement on their performance parameters i.e. speed, agility, abdominal muscular strength endurance, anaerobic power and VO_2max.

Own body exercise training, SAQ training for twelve weeks were given to the subjects of the experimental groups. Their training days and hours of every week were from Monday to Saturday between 4:00 PM to 5:00 PM. A pre-test was conducted before the commence of the training and final test data were collected after the twelve weeks of training. The procured data were then statistically analyzed by paried‘t’ test, ANCOVA and post hoc test. In all the cases 0.05 was fixed as the level of confidence.

RESULTS: VO2 MAX

COMPARISON OF VO2 MAX IN EXPERIMENTAL AND CONTROL GROUPS

The data were obtained from the experimental groups and control group on vo2 max scores. Table-I gives the pre-test, post-test and adjusted post-test review.

TABLE – I
ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON VO_2MAX (Units in ml/kg/min)

Test	OBETG-I	SAQTG-II	CG-III	SV	SS	Df	MS	F-ratio
Pre Test Mean	43.6	43.9	43.2	Between	8.867	2	4.433	1.063
				Within	362.733	87	4.169	
Post Test Mean	49.6	51.1	44.0	Between	845.756	2	422.878	55.293*
				Within	665.367	87	7.648	
Adjusted Post Test Mean	49.7	50.9	44.1	Between	748.522	2	374.261	55.725*
				Within	577.593	86	6.716	

Significant difference at 0.05level of confidence with table value 3.10.

RESULTS OF VO_2 Max

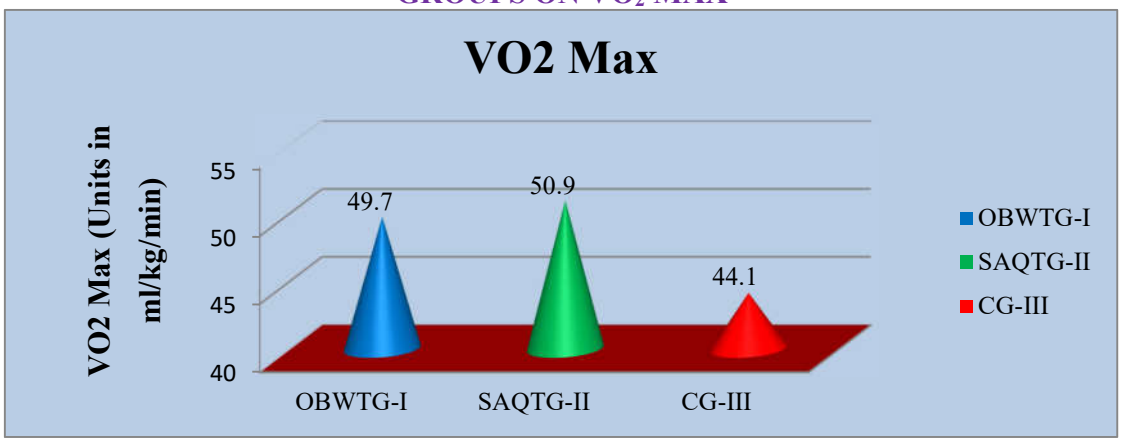
Table XVIII shows the analysed data on VO_2max. The pre-test mean values of the Own body exercise training group, SAQ training group and control group VO_2max scores are 43.6, 43.9 & 43.2 respectively. The 1.063 pre-test F value was obtained lesser than the table value 3.10. As a result, the pre-test mean importance of Own body exercise group, SAQ training group and control group of VO_2max prior to the start of the respective trainings were found to be insignificant at 0.05 level of trust for degrees 2 and 87 of freedom. This study therefore confirms that the random allocation of subjects into three groups has been successful.

The post-test mean of the Own body exercise training group, SAQ training group and control group scores are 49.6, 51.1 & 44.0 respectively. The obtained f-ratio value 55.293* was greater than the required table value 3.10. For the degrees of freedom 2 and 87, thus, the post-test mean value of VO_2max showed significant improvement at 0.05 level of confidence. Accordingly, the results obtained showed that the intervention of Own body exercise training group, SAQ training group on VO_2max significantly improved among treatment groups.

The adjusted post-test mean values of Own body exercise training group, SAQ training group and control groupVO_2max scores are 49.7, 50.9 & 44.1 respectively. The 55.725* adjusted post-test F value was obtained greater than the required table value. Thus, for the degrees of freedom 2 and 86, the adjusted post-test mean value VO_2max shows significant at 0.05 confidence level. Therefore, among the training groups on VO_2max, the observed F value of the adjusted post-test mean produced significantly improvements.

The adjusted post-test mean difference of experimental and control groups value is graphically represented in the figure - I

FIGURE - I
THE ADJUSTED POST TEST MEAN VALUES OF EXPERIMENTAL AND CONTROL GROUPS ON VO_2 MAX



COMPARISON OF ANAEROBIC POWER IN EXPERIMENTAL AND CGS

The data were obtained from the experimental groups and control group on anaerobic power scores. Table II gives the pre-test, post-test and adjusted post-test review.

TABLE – II
ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON ANAEROBIC POWER (Units in Watts)

Test	OBETG-I	SAQTG-II	CG-III	SV	SS	Df	MS	F-ratio
Pre Test Mean	90.8	90.6	90.7	Between	0.800	2	0.400	0.117
				Within	296.8	87	3.411	
Post Test Mean	95.03	96.83	91.0	Between	535.356	2	267.67	79.445*
				Within	293.133	87	3.369	
Adjusted Post Test Mean	94.99	96.91	90.96	Between	552.403	2	276.201	122.199
				Within	194.382	86	2.260	

Significant difference at 0.05level of confidence with table value 3.10.

RESULTS OF ANAEROBIC POWER

Table XVI shows the analysed data on anaerobic power. The pre-test mean values of the Own body exercise training group, SAQ training group and control group anaerobic power scores are 90.8, 90.6&90.7 respectively. The 0.117 pre-test F value was obtained lesser than the table value 3.10. As a result, the pre-test means importance of Own body weight training group, SAQ training group and control group of anaerobic power prior to the start of the respective trainings were found to be insignificant at 0.05 level of trust for degrees 2 and 87 of freedom. This study therefore confirms that the random allocation of subjects into three groups has been successful.

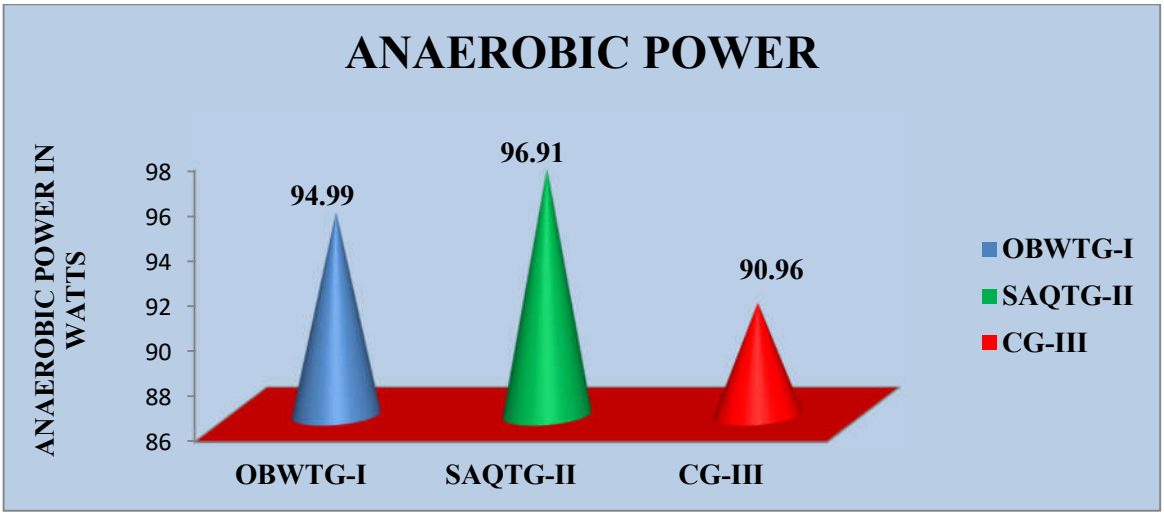
The post-test mean of the Own body exercise training group, SAQ training group and control group scores are 95.03, 96.83 & 91.0 respectively. The obtained f-ratio value 79.445* was greater than the required table value 3.10. For the degrees of freedom 2 and 87, thus, the post-test mean value of anaerobic power showed significant improvement at 0.05 level of confidence. Accordingly, the results obtained showed that the intervention of Own body exercise training group, SAQ training group on anaerobic power significantly improved among treatment groups.

The adjusted post-test mean values of Own body exercise training group, SAQ training group and control group anaerobic power scores are 94.99, 96.91 & 90.96 respectively. The 122.19* adjusted post-test F value was obtained greater than the required table value. Thus, for the degrees of freedom 2 and 86, the adjusted post-test mean value anaerobic power shows significant at 0.05 confidence level. Therefore, among the training groups on anaerobic power, the observed F value of the adjusted post-test mean produced significantly improvements.

The adjusted post-test mean difference of experimental and control groups value is graphically represented in the figure – II.

FIGURE – II

THE ADJUSTED POST TEST MEAN VALUES OF EXPERIMENTAL AND CONTROL GROUPS ON ANAEROBIC POWER



CONCLUSIONS

Based on the results of the study the following conclusions were drawn:

1. It was concluded own body exercises and SAQ training produced significant improvement selected performance parameter namely VO_2 max anaerobic power among school girls pre to post test.
2. In analyzing result of adjusted post-test of own body exercise training, SAQ training and control group. It was concluded significant difference was observed among the two experimental groups on VO_2 max anaerobic power among school girls pre to post test.

RECOMMENDATIONS

1. From the present study, due to the effect of Own body exercises Training with SAQ Training on Speed, Agility, abdominal muscular strength and anaerobic power on performance related variables selected , the physical education teachers, trainers and coaches can prefer this type of training so as to achieve their aim in time.
2. A study can be conducted by combining own body exercises training with SAQ Training with varied combinations on speed, agility, abdominal muscular strength and anaerobic power.
3. A study can be conducted by using Own body exercise with SAQ Training in periodization nature to combined and specific sports in different categories.
4. A similar study may be conducted physiological, hematological and bio chemical variables.

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