



EFFECT OF SWISS BALL EXERCISE TRAINING PROGRAMME ON SELECTED MOTOR FITNESS COMPONENTS

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Abstract:

The present study was done to see the effects of Swiss ball exercise training programme on selected motor fitness components of school boys aged 12-16 years. The present was done on 50 school boys of Delhi by using convenient sample. The age of the students was ranging 12-16 years. This study consists of an experimental study which consist of 2 groups i.e. a control group for the testing the effects of Swiss ball exercise training program on selected motor fitness components , and Non-equivalent control groups Design (pretest/post-test) where the experimental group received the Swiss ball exercise training program and the control group did not. The result could compare the effects of Eight weeks training programmed. The collected data were analyzed by using One Way ANCOVA. It was found that after the Eight weeks training programme there was a significant improvement in the selected motor fitness components.

Introduction:

Sports is a complex process and it consists of various type of activities and there are different types of training methods and different types of exercise to develop the motor fitness abilities of the individuals. Now a Days sports and games are highly scientific fields and depends upon the capabilities, physical fitness and motor fitness of the individual like muscular strength , endurance , speed , balance , reaction time, speed, agility etc .These all (Physical qualities) are basic requirement for participating in all kinds of games and sports. Fitness of player can be improved with the help of various specific training i.e. Swiss Ball training, circuit training, etc. These specific training improves the fitness level of individuals.

Motor fitness only can be developed through regular participation in exercises and other related activities. In the modern sports the concept of motor fitness has become a point of attraction.

Therefore the researcher realized the importance of the Swiss ball exercise in order to develop motor fitness Component of the school boys.

Objectives of the Study:

The objectives of the study were as follows:-

- ✓ To compare adjusted mean scores of Speed of Swiss Ball Exercise group and Non Swiss Ball Exercise group by taking pre Speed as a covariate
- ✓ To compare adjusted mean scores of Agility of Swiss Ball Exercise group and Non Swiss Ball Exercise group by taking pre Balance as a covariate

Materials and Method:

Selection of Sample:

A sample of fifty (n=50) boys subject aged 12 to 16 years was selected randomly from Bal Bharti Public School, Delhi

Research Design:

The research design of the research study was Non-equivalent control groups Design (pretest/post-test) The design of the experiment had been planned in three

phase's viz., Phase – I: Pre-test, Phase – II: Training or Treatment, and Phase – III: Post-test. The subjects were divided into two groups one experimental group and one control group; each group consisted of 25 subjects. Experimental group was given Swiss Ball exercise programme for the period of eight weeks.

Selected Variable:

Selected motor fitness components Speed and Balance were considered as dependent variables.

Table 1

S.No	Variable	Test	Units
1	Speed	50 meter dash run	Seconds
2	Balance	Balance Board Test	Seconds

Treatment: Swiss Ball Exercise:

- ✓ Overhead Ball Squat
- ✓ Back Extension
- ✓ Hamstring Curl
- ✓ Leg Raise
- ✓ Swiss Ball Squats
- ✓ Ball Lunge

Analysis of the Data:

Statistics:

Since, there were two groups for this experimental study, Swiss Ball Exercise group and Non Swiss Ball Exercise group wherein the researcher has decided to compare the adjusted Mean Scores of selected Motor Fitness Components by taking Pre Test as Covariate in order to see the effect of Swiss ball Exercise of school boys aged 12 to 16 years. Therefore, the One Way ANCOVA test was appropriately used for the data analysis.

Results and Discussion:

Group Wise Comparison of Effect of Swiss Ball Exercise Programme on Speed:

The mean achievement in Speed due to Integrated Exercises Training Module, as obtained from ANCOVA test, revealed that -

There was significant difference between adjusted mean score of Speed of school boys of the Swiss Ball Exercise group and Non Swiss Ball Exercise group by taking Pre Speed as Covariate ($F_{y,x}=7.71$, $df=1/49$, $p<0.05$). Therefore the adjusted mean scores of Speed of boys of Swiss Ball Exercise group is 9.40 which is significantly higher than that of Non Swiss Ball Exercise group where adjusted mean scores of Speed of boys is 9.53. Thus, the overall performance scores of both the Swiss Ball Exercise group and Non Swiss Ball Exercise group of Speed were not equal.

Group Wise Comparison of Effect of Swiss ball Exercise Programme on Balance:

The mean achievement in Balance due to Integrated Exercises Training Module, as obtained from ANCOVA test, revealed that -

There was significant difference between adjusted mean score of Balance of school boys of the Swiss Ball Exercise group and Non Swiss Ball Exercise group by taking Pre balance as Covariate ($F_{y,x}=14.79$, $df=1/49$, $p<0.01$). Therefore the adjusted mean scores of Balance of boys of Swiss Ball Exercise group is 11.94 which is significantly higher than that of Non Swiss Ball Exercise group where adjusted mean scores of Balance of boys is 15.47. Thus, the overall performance scores of both the Swiss Ball Exercise group and Non Swiss Ball Exercise group of Balance were not equal.

These results help to interpret that the effect of Swiss Ball Exercise Programme were useful in developing Speed and Balance. However, the Swiss Ball Exercise has been recorded as more effective in improving Speed and Balance of the Schools boys aged 12 to 16 years.

Conclusion:

Effect of eight weeks Swiss Ball Exercise Programme intervention has potential benefits to improve Speed and Balance of the Schools boys aged 12 to 16 years.

References:

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