

THE EFFECT OF SCIENTIFIC TRAINING PROGRAM ON SELECTED VARIABLES OF FEMALE STUDENTS

S. Prabeen^{*}, R. Poonia² and V. Pawar³

^{1,2}Manipal University Jaipur

³Department of Physical Education and Sports, Smt. HR Patel Arts Mahila College, Shirpur
Prabeensahu45@gmail.com, reenapoonia23@gmail.com, vinay_1034@rediffmail.com

ABSTRACT

The purpose of the study was to find out the effect of scientific exercises training plan on selected variables. For this N=80-girl student Mayo College School Ajmer with the mean age of 16 ± 1.34 year were selected as the subjects for the study. Further, researcher had separated the total N=80 girls into Control n=40 (CN) and experimental group (EXP) n=40. The selected variables were BMI (BMI), Resting heart rate (RHR) and endurance (END). The pretest posttest experimental design was applied with independent experimental treatment of 6 weeks in the form of scientific exercises training plan. The result of the study showed that, there was statistically insignificant difference was found in all the dependent variables of CN as the paired test value were BMI -0.31, RHR 0.59, & END 0.95 respectively. The results of the EXP group showed there was statistically significant difference was found in all the dependent variables of EXP as the paired test value were BMI -11.21, RHR 20.31, & END 2.93 respectively.

Keywords: Exercise, Physical training, Physical, Body Mass Index, Health-Related Physical Fitness.

Introduction

Now days Study pressures on students are quite common in today's world. Reason behind this can be to get good job, getting good percentage of marks, peer pressure, family pressure and the list goes on. This stress can create many mental and health weaknesses which would affect the students on it are physically, psychologically, physiologically behavior which can lead towards negative activity (Blair, S. N. 2009). Health fitness is important for all individuals throughout their life the achievement and maintenance of that quality are necessary for an individual to function efficiently and to enhance his / her health through the prevention and remediation of disease and illness which is the central focus of health and mental fitness (Kaukab Azeem, 2015). An increasing body of research supports the contribution of regular, appropriate physical activity to the health and to once quality of life (Arif Ali Khan 2016). The world of games of sports has crossed many miles as a result of different types of research. In the modern sports, physical preparation of the team/ individual is as important as teaching as the different skills of a game with scientific methods. In the same way to concentrate in the study or in any other constructive activity individual needs to mentally fit. So, considering all these are factors important for

maintaining mental and physical health (Janssen, I. 2007).

Methodology

This is an experimental research with a pre and post-test experimental design including a Physical Training, Physical and psychological Training. N=80 girl student the mean age of (16 ± 1.34) year those were beginner participants from Mayo College Girls' School Ajmer were selected to take part in this study. The subjects were assigned into two groups namely, group: CN (N=40) experimental group, group: EXP (N=40). The age of the participants was in the range between 15 to 17 years. The duration of the Physical Training program was 1 hour per session, four days per week. All the subjects were tested prior to and after the 6 weeks of program. The test procedure was verbally explained and practically demonstrated to all the participants. A handout and schedule were circulated to elicit the information and details for the students' daily exercise program and training intensity was facilitated. The physical variables were tested by the investigators at the physical education department. To accomplish the purpose of this investigation, a group of 80 girl were selected randomly from the classes of 9th to 11th at Mayo College Girls

School, Ajmer Rajasthan. Physical Training program was applied on the female participants for six weeks, four days weekly, and 1 hour of physical training per session. An initial test and post-test were applied to find out the effect of Physical Training on physical variables among the participants. The selected variables were BMI (BMI), Resting heart rate (RHR) and endurance (END). The BMI was calculated on basis of height and weight of the selected subject, the RHR was assessed

through manual palpitation method and END was calculated through 600-yard run/walk test. The statistical procedure was dependent t-test with the level of significance 0.05.

Results and Discussion

The result of selected physical fitness variables calculated on CN and EXP group were presented in the table form here.

Table-1
Dependent t- test applied on BMI variable of CN and EXP group

Group	Pre mean	Post mean	Mean difference	Std. Devi.	Df	T value	Sig.
Control	17.89	17.90	-.005	0.10	39	-0.31	0.76
Experimental	17.98	17.65	0.32	0.18		11.26	0.00

Table-1 of BMI shows that, CN pre mean =17.89 post mean=17.90, mean difference=-.005 & std. devi=0.10 with df=39. The obtained t value was -0.31 which was insignificance at 0.76. EXP pre mean =17.98

post mean=17.65, mean difference=-.32 & std. devi=0.18 with df=39. The obtained t value was 11.26 which was significance at 0.00.

Table-2
Dependent t- test applied on Resting Heart Rate variable of CN and EXP group

Group	Pre mean	Post mean	Mean difference	Std. Devi.	Df	T value	Sig.
Control	84.82	84.62	0.20	2.12	39	0.59	0.55
Experimental	85.0	82.95	2.05	0.63		20.30	0.00

Table-2 of Resting Heart Rate shows that, CN pre mean =84.82 post mean=84.62, mean difference=-.20 & std. devi=2.12 with df=39. The obtained t value was 0.59 which was insignificance at 0.55. EXP pre mean =85.0

post mean=82.95, mean difference=2.05 & std. devi=0.63 with df=39. The obtained t value was 20.30 which was significance at 0.00.

Table-3
Dependent t -test applied on Endurance variable of CN and EXP group

Group	Pre mean	Post mean	Mean difference	Std. Devi.	Df	T value	Sig.
Control	2.43	2.42	0.03	0.199	39	0.95	0.37
Experimental	2.43	2.41	0.014	0.030		2.94	0.01

Table-3 of Endurance shows that, CN pre mean =2.43 post mean=2.42, mean difference=0.03 & std. devi=0.199 with df=39. The obtained t value was 0.95 which was insignificance at 0.37. EXP pre mean =2.43 post mean=2.41, mean difference=0.014 & std. devi=0.030 with

df=39. The obtained t value was 2.94 which was significance at 0.01.

Conclusion

The results of the study have revealed that there was statistically significance difference was observed in selected variables between the

CN and EXP group of the study. The BMI results showed that, there was no change in the BMI of CN group whereas; the EXP group had showed the decrease of 1.83% in the BMI value after the 6 weeks of physical training in the selected girl students. Similar results were found in the study of Huang, Y. and Malina, R. (2010) & George A. Kelley, Kristi S. Kelley, (2015) Lazaar, N., Aucouturier etc, 1992 where they all found the decrease in the value of BMI after under gone in the systematic physical exercise plan. The results of the study further depicted that, there was the decrease in the resting heart rate of the selected subject after participating in 6 weeks of physical exercise plan. There was 2.41% of decrease was observed in the mean value of resting heart rate in post data. The results was attributed to the

finding of P.Arul Deva Pau (2014), Fakiha Wadiat, Reema Aman, Marrium Bashir, (2020) and Raif Zileli (2018) study conducted on the female and found the decreased in the resting heart rate. The researcher also found the decreases in endurance value of the selected subject 0.82% after the 6 weeks of the physical exercises training. The studied of Martin Babu Panackal 2015; Abida B, 2016; Butcher, J. 1983; Janssen, I., & Leblanc, A. 2009 highly recommended the physical activities should be included in the school program for improving the physical fitness and health related variables of the girl. In the current scenario children are not involving themselves in the physical activities, this is one of the major reasons of obesity in the children Andersen, R., E., 1998; Blair, S. N. 2009.

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