



EFFECT OF SPORT LOADING PROGRAM ON AGILITY AND FLEXIBILITY AMONG PHYSICAL EDUCATION STUDENTS

Dr.Ch.VST.SAIKUMAR

Principal and Secretary, Sri Ramakrishna Mission Vidyalaya, Maruthi College of Physical Education, Coimbatore, Tamilnadu.

ABSTRACT

The aim of this research was to see how sport loading program affect agility and flexibility for physical education students. Thirty students from Maruthi College of Physical Education in Coimbatore, Tamilnadu, were chosen at random as subjects for the current study, and their ages ranged from 18 to 25 years. The participants were split into two groups of similar size. The experiment was set up as a true random group design with a pre- and post-test. The subjects (n=30) were divided into two groups of fifteen students each at random. In a similar way, the classes were assigned as sport loading program group and control group. The post-tests were performed after the study group had participated for six weeks. The treatment impact of the training programs on all of the variables in the sample was tested using analysis of covariance (ANCOVA). It was observed that the six weeks of sport loading program significantly improved agility and flexibility of physical education students.

KEYWORDS: Sport Loading, Agility, Flexibility, Physical Education Students.

INTRODUCTION

Sport loading is a strategy for increasing the tempo of explosive concentric motions like sprinting. A relatively light resistance that produces the best results by increasing acceleration, increasing the amount of force the body must manage, and thereby increasing body loading. Sport loading is the systematic addition of weight to the bodies of other players in some manner (uniform, vest pants, or shirts) or to the sports implements (sticks, pats, balls and so on). Sport loading is a strategy for increasing the tempo of explosive concentric motions like sprinting. The best results are achieved with a light resistance that does not significantly alter sprinting form. Sport packing, in combination with strength training, pace endurance training, plyometric and overspeed training, results in the most significant difference in the fast twitch muscle fibres (Rantalainen, 2012).

METHODOLOGY

The aim of this research was to see how sport loading program affect agility and flexibility in physical education students. Thirty students from Maruthi College of Physical Education in Coimbatore, Tamilnadu, were chosen at random as subjects for the current study, and their ages ranged from 18 to 25 years. The participants were split into two groups of similar size. The experiment was set up as a true random group design with a pre- and post-test. The subjects (n=30) were divided into two groups of fifteen students each at random. In a similar way, the classes were assigned as sport loading program group and control group. The post-tests were performed after the study group had participated for six weeks. The treatment impact of the training programs on all of the variables in the sample was tested using analysis of covariance (ANCOVA).

RESULTS

TABLE – I
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE AGILITY OF
EXPERIMENTAL AND CONTROL GROUPS

| | Experimental Group | Control Group | Source of Variance | Sum of Squares | df | Mean Square | F |
|--------------------|--------------------|---------------|--------------------|----------------|----|-------------|---------|
| Pre Test Mean | 11.48 | 11.49 | BG | 0.001 | 1 | 0.001 | 0.02 |
| | | | WG | 0.33 | 28 | 0.01 | |
| Post Test Mean | 11.09 | 11.55 | BG | 1.61 | 1 | 1.61 | 108.57* |
| | | | WG | 0.41 | 28 | 0.01 | |
| Adjusted Post Mean | 11.09 | 11.55 | BG | 1.61 | 1 | 1.61 | 108.88* |
| | | | WG | 0.40 | 27 | 0.01 | |

* Significant at 0.05 level

Table value for df 1, 28 was 4.20, df 1, 27 was 4.21

The above table indicates the adjusted mean value on agility of experimental and control groups were 11.09 and 11.55 respectively. The obtained F-ratio of 108.88 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of

confidence. The result of the study indicates that there was a significant difference between experimental and control groups on agility. The above table also indicates that both pre and post test means of experimental and control groups differ significantly.

FIGURE - I
SHOWS THE MEAN VALUES ON AGILITY OF SPORT LOADING PROGRAM AND CONTROL GROUPS

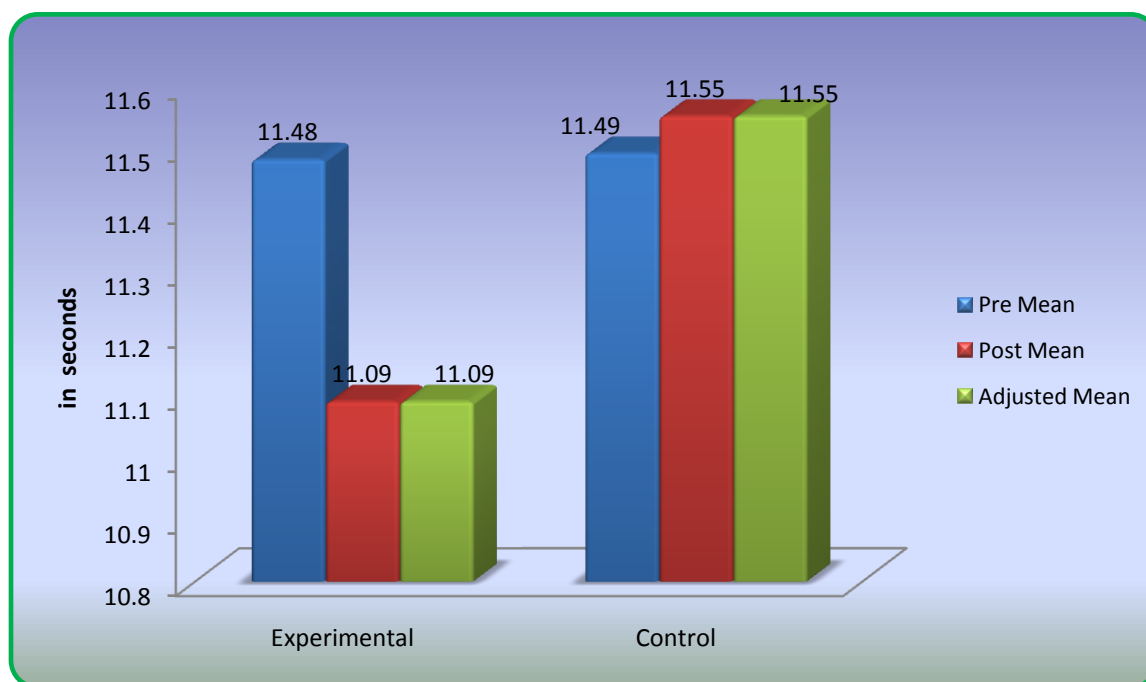


TABLE – II
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE ON
FLEXIBILITY OF EXPERIMENTAL
AND CONTROL GROUPS

| | Experimental Group | Control Group | Source of Variance | Sum of Squares | df | Mean Square | F |
|--------------------|--------------------|---------------|--------------------|----------------|----|-------------|---------|
| Pre Test Mean | 21.40 | 21.86 | BG | 1.63 | 1 | 1.63 | 0.37 |
| | | | WG | 123.33 | 28 | 4.40 | |
| Post Test Mean | 31.26 | 21.26 | BG | 750.00 | 1 | 750.00 | 116.75* |
| | | | WG | 179.86 | 28 | 6.42 | |
| Adjusted Post Mean | 31.36 | 21.17 | BG | 768.43 | 1 | 768.43 | 129.95* |
| | | | WG | 159.65 | 27 | 5.91 | |

* Significant at 0.05 level

Table value for df 1, 28 was 4.20, df 1, 27 was 4.21

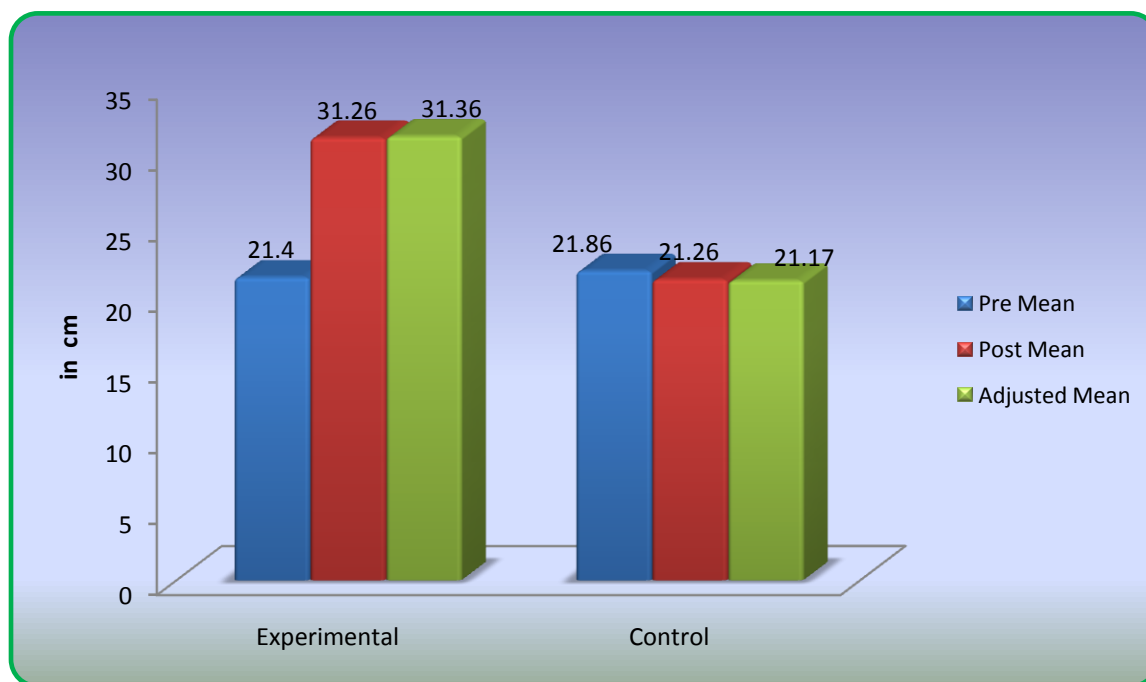
The above table indicates the adjusted mean value of flexibility of experimental and control groups were 31.36 and 21.17

respectively. The obtained F-ratio of 129.95 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27

required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference between experimental and control groups on flexibility.

The above table also indicates that both pre and post test means of experimental and control groups also differ significantly.

FIGURE -II
SHOWS THE MEAN VALUES ON FLEXIBILITY OF SPORT LOADING PROGRAM AND CONTROL GROUPS



CONCLUSION

1. It was observed that the six weeks of sport loading program was significantly improved the agility and flexibility of physical education students.

REFERENCES

1. Attene G, Laffaye G, Chaouachi A, Pizzolato F, Migliaccio GM, Padulo J. (2015). Repeated sprint ability in young basketball players: one vs. two changes of direction (Part 2). *J Sports Sci.* 9:1-11.
2. Clark, K.P., Stearne, D.J., Walts, C.T. & Miller, A.D. (2012). Longitudinal effects of resisted sprint training using weighted sleds vs. weighted vests. *J Strength Cond Res* 24(12): 3287-3295.
3. De Villarreal, E.S., Kellis, E., Kraemer, W.J. & Izquierdo, M. (2009). Determining variables of plyometric training for improving vertical jump height performance: a meta-analysis. *J Strength Cond Res.* 23(2):495-506.
4. Eduardo J. A. M. Santos Manuel A. A. S. Janeira (2008). Effects of Complex Training on Explosive Strength in Adolescent Male Basketball Players. *Journal of Strength and Conditioning Research.* 22(3)/903–909.
5. Rantalainen, T., Ruotsalainen, I. & Virmavirta, M. (2012). Effect of weighted vest suit worn during daily activities on running speed, jumping power, and agility in young men. *J Strength Cond Res.* 26(11):3030-5.