



EFFECT OF PILATES EXERCISE TRAINING PROGRAM ON FLEXIBILITY VARIABLE OF INTERCOLLEGIATE FOOTBALL PLAYERS

Mr. Sagar Dhikale¹ Dr. Gomchale M. S. ²

¹Research Scholar, Christ College, Pune (MH)

²Director of Physical Education and Sports) Narayanrao Waghmare Mahavidyalaya, Akhada Balpur, Hingoli, (MH)

Corresponding Author- Mr. Sagar Dhikale

Email id: pardeshishashikant@gmail.com

DOI- 10.5281/zenodo.7266872

Abstract:

The purpose of this study was to examine the effect of Pilates exercise training program on flexibility variable of intercollegiate football players. It was an experimental study in which pre-test & post-test non equivalent groups design was used. 30 intercollegiate boys football players were selected as sample by using simple random sampling technique total intercollegiate boys football players (n=30) from Christ college, Pune. They were equally divided into, Experimental group (n=15) & Control group (n=15) boys. Sit & reach test was conducted on both the groups obtained data was analyzed by using Independent sample t-test. Result Pilates exercise training program was useful to improve flexibility variable. This shows the significant effect at 0.05 level thus researcher concludes that there was significant improvement on flexibility performance of experimental group as compared to control group due to the treatment given.

Keyword: Pilates exercise program, Sit and reach test & Intercollegiate Football players.

Introduction:

Physical activity is as old as human life. A primitive man, even watchful of his foes, had to keep himself in a very good physique for his survival. Therefore the primitive man had to be a good footballer, runner, thrower and swimmer for his existence. Movement is the basis for life and growth, which is realized through physical activities, sports and games. It is a natural and an inborn quality of a child to involve himself in physical activities right from the day of his birth. Play is an integral part of our nature. It helps us to develop physically, mentally, and socially.

“Physical fitness can neither be achieved by wishful thinking nor outright purchase.”

Joseph H. Pilates

The football players most of involving themselves in physical exertion every day by sweating hours at ground practice, gyms with conditioning or football matches in clubs or playing some games apart from recreation. In

the college life students those participates in the sports in that situation students play double role academic achiever with sports players. In this study researcher selected sample of intercollegiate football player those studied in the Christ college and played intercollegiate matches and regular practice in ground. The footballers need exercise and physical fitness has been extremely emerging as one of the weapon to protect our body from the diseases and to stay healthy and to live a better life. In the recent many new forms of exercise have been discovered for rehabilitation or fitness purpose among them one of the popular exercises is the Pilates exercise. In recent years many athletes have been paying attention to the Pilates exercise for the conditioning purpose and also included in their exercise routine, which helps them to enhance their performance in the competition. Researcher was made Pilates training program for intercollegiate footballer to regularly practice to implement his scheduled. Pilates improves mental and

physical well-being, increases flexibility also strengthens muscles through controlled movements done as mat exercises or with equipment to tone and strengthen the body. Pilates exercise is a conditioning routine that seeks to develop flexibility, endurance, strength, and coordination without gaining muscle bulk.

The Benefits of Pilates Exercise:

- Increased spine mobility.
- Increased muscle flexibility.
- Improved body awareness.
- Decreased low back pain.

Flexibility:

Holt et al. (1996) has defined flexibility as “the intrinsic property of body tissues, which determines the range of motion achievable without injury at a joint or group of joints”. Flexibility is the ability of a muscle to relax and yield to stretch. This definition emphasizes the contractile component of soft tissue structures around a joint rather than the movement available at a specific joint or joints. When measuring flexibility, it should not be thought of as a whole body component but as a joint or body segment specific issue. Flexibility will often be joint specific in different sports and measurement should therefore reflect those variations (Winter et al, 2007).

Material and Method:

Method of the study

The present study was experimental research which was conducted with a purpose to investigate the effect of six weeks Pilates exercise training program on flexibility variable of intercollegiate football players.

Research Design

Experimental design was used for this study to check the hypothesis; this research was based on pre-test & post- test non equivalent groups design.

Method of Sampling

For the purpose of the study 30 intercollegiate footballers boys from Christ College Pune was randomly selected. The total number of subjects was divided into two groups’ i.e. experimental group and control group each group consisted of 15 subjects.

Selection of Variable

In this study flexibility variable was selected and for that variable measures sit and reach test **used for collected data.**

Administration of Training Programme

The Pilates exercises were administered for 6 weeks by the researcher himself. At the start of the exercise programme, data were collected on the selected flexibility variable as the pretest data after collected just to see the progress, and at the end of 12 week, the post-test data were collected for the analysis purpose. As the training session advances, the intensity of the load was increased by increasing repetition and duration. Forty five minutes Pilates exercise three days per week i.e. on Tuesday, Thursday and Saturday were given. Prior to the training programme the experimental group had a warming up session. In the first week to second week the Pilates exercises i.e. Side bridge (5 sec hold x 3 sets), Single leg forward bridge (5 sec hold x 3 sets), Star bridge (5 sec hold x 3 sets), V-ups (5 reps x 3 sets), Straight leg elbow to knee curls (5 reps x 3 sets), Cycling twists (5 reps x 3 sets), Spine twist (5 reps x 3 sets). The Side bend (5 reps x 3 sets), the leg pull (5 reps x 3 sets) and Shoulder Bridge (5 reps x 3 sets) were given to the experimental group. After every two weeks the training loads gradually.

Procedure of the study

The researcher assembled all the subjects and given to them instruction about the need, about the experiment also provide explanation of sit and reach test after the experimental group implement six weeks Pilates exercise program for selected total number of 15 intercollegiate boys footballers and control group they didn’t doing Pilates training but they keep on regular football activity. After the selected subjects were implemented pre-test by sit and reach test experimental and control groups, after the completed tenure training program conduct post tests for data collection.

Statistical Tools

After collected data pre-test or post-test of experimental & control group by analyzed through the independent sample ‘t’ test and interpretation were drawn. The level of significance was kept at 0.05 to test the hypothesis.

Results of the study:

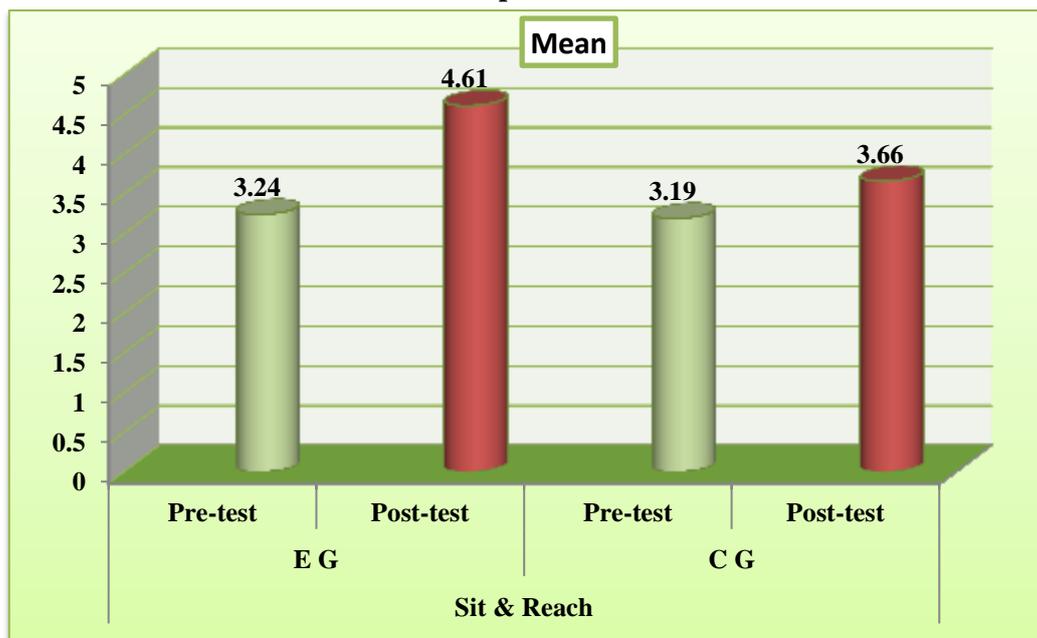
The obtained results are present in the following table which represents the results

of independent sample t-test to compare the mean values of experimental and control group.

Table no. 1

Comparison of Pre & Post-test Scores for Experimental and Control Group on Sit & Reach of Intercollegiate Football Players

Test	Groups		N	Mean	SD	MD	't' value
Sit & Reach	E G	Pre-test	15	3.24	2.78	1.51	2.57
		Post-test	15	4.61	2.47		
	C G	Pre-test	15	3.19	2.32	0.47	0.94
		Post-test	15	3.66	2.18		

Graph no. 1

The Graph indicates there was significant improvement on flexibility of intercollegiate football players on experimental group due to treatment.

Discussion of the findings:

The findings regarding the effect of Pilates exercise on flexibility variable of period among the experimental group and control group revealed the following indications. The sit and reach test conducted for experimental group indication of significant progress in the flexibility variable. To examine the significance of mean differences between initial and final week among the experimental and control group, t-test was applied at 0.05 level of significant with f-value 1.99. The pre-test and post-test scores for experimental group on flexibility variable i.e. sit and reach test the t-value were found to be statistically significant.

The research finding of **Amorim et al. (2011)** support the findings of the present

study. He concluded that Pilates training has a positive effect on flexibility and muscular strength in dance student. Another study support the findings of the study,

Conclusion:

On the basis of the result obtained in the study the researcher made the concluded that Sit and reach is improved through regular participation in six weeks of Pilates exercise programme in the intercollegiate boy's football players of 17-21 years of age. Sit and reach develops during the later stage (after fourth week of training).

References:

1. **Betul, B. S. Ozkan, O. A. Feza, K. Sabire, A. (2007).** "Effects of Pilates exercise on trunk strength, endurance and flexibility in sedentary adult females

- "Journal of Bodywork and Movement Therapies, Volume: 11, Issue 4, pp. 318-326.
2. **Bloom & Joyce, L. (1982).** "A Study of the Effects of Static and Ballistic Stretching Exercise Programs on Flexibility", Dissertation Abstracts International, 43/04: 1078-A
 3. **Cakmakci, O. et al. (2011).** "The Effects of 8 Week Pilates Exercise on Body Composition in Obese Women". Coll. Anthropol. 35/4/ 1045-1050.
 4. **Caldwell, K. et al., (2009).** "Effect of Pilates and Taiji Quan Training on Self-Efficacy, Sleep quality, mood, and Physical Performance of College Students". Journal of Bodywork and Movement Therapies, Volume: 13, Issue 2, pp. 155-163.
 5. **Emery, K. Sophie, J. D. S. McMillan, A. Cote, J. N. (2010).** The Effects of a Pilates Training Program on Arm-Trunk Posture Movement". Clinical Biomechanics, Volume: 25, Issue-2, pp.124-130.
 6. **Best, J. W. and Kahn, J. V. (2008)** Research in education tenth edition. Published by Asoke K. Ghosh, PHI learning private limited, M-97, Connaught circus, New Delhi-110015. Pp.168.
 7. **Eric, G. J. et al. (2007).** "The effects of Pilates-based exercise on dynamic balance in healthy adults ". Journal of Bodywork and Movement Therapies. Volume: 11, Issue 3, pp. 238-242.
 8. **Gagnon, L. H. (2005).** "Efficacy of Pilates Exercises as therapeutic intervention in treating patients with low back pain", Dissertation, University of Tennessee.
 9. **Kloubec, J. A. (2010).** "Pilates Improvement of Muscle Endurance, Flexibility, Balance, and Posture". Journal of Strength and Conditioning Research, Volume: 24, Issue-3, pp. 661-667.