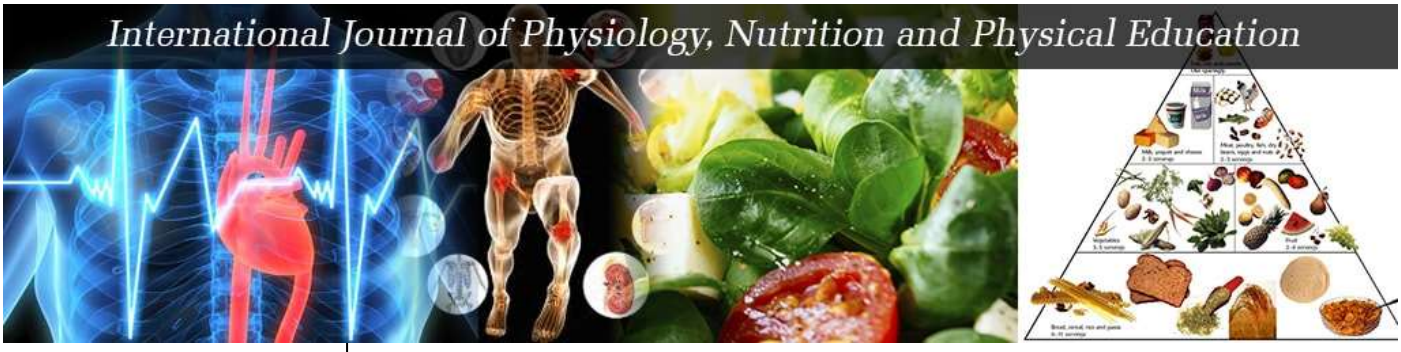

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Effect of ladder training on selected skill related physical fitness variables of women football players

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Abstract
The impartial of this study was to travel the ladder training on selected skill related physical fitness variables of women football players, totally 30 inter collegiate players to participate in this study. Treatment group I underwent ladder training, group II acted as control group. All thirty subjects were inducted for pre and posttest on agility. The ladder training was given to the experimental group for 5 days per week (Monday to Friday) for the period of eight weeks. The control group was not given any sort of training except their routine work. The agility (4 x 10 meter shuttle run in seconds) were assessed before and after training period. The result from 't' test and inferred that 12 weeks ladder training treatment produced identical changes over agility of women football players. Further, the findings confirmed the ladder training is suitable protocol to bring out the desirable changes over agility of women football players.

Keywords: Ladder training, agility, and women football players

Introduction
Ladder training is the latest method of multi-directional training program, because the elements of motor components that is strength, power, balance, agility, co-ordination, joints ability, foot speed, hand eye coordination and reaction time are increasing. By training, the mind and body to understand a variety of foot combinations. There are mostly four type of basic skill are used while training with ladder. These are runs through ladder, skips, shuffles and jump/hops. Although linear and lateral moments are there. It can be learned in a slow controlled phase. Physical fitness is the body ability to function efficiently and effectively. It is a state of being that consists of at least five health-related and six skill-related, physical fitness components, each of which contributes to the total quality of life. Physical fitness is associated with a person's ability to work effectively, enjoy leisure time, be healthy, resist hypo kinetic diseases, and meet emergency situations. It is related to, but different from, health and wellness. Although the development of physical fitness is the result of many things, optimal physical fitness is not possible without regular physical activity.

Materials and Methods
To attain the determination of the study 30 football players at the age group of 21-25 years were selected from Navarasam College in Coimbatore district. The selected subject was randomly assigned into two equal groups, consist of fifteen each, namely ladder training group (n=15) and Control group (n=15). The respective training was given to the experimental group the 5 days per weeks (Monday to Friday) for the training period of twelve weeks. The control group was not given any sort of training except their routine. The evaluated agility were measured by 4x10 meter shuttle run in seconds. The parameters were measured at baseline and after 12 weeks of ladder training were examined. The intensity was increased once in two weeks based on the variation of the exercises. The training programme was lasted for 45 minutes for session in a day, 6 days in a week for a period of 12 weeks duration. These 45 minutes included warm up for 10 minutes, 25 minutes ladder training and warm down for 10 minutes. The equivalent in ladder training is the length of the time each action in total 5 day per weeks. (Monday to Friday)

Statistical analysis

The collected data on agility and reaction time due to the combination of ladder training was statically analyzed with "t" test to find out the significant improvement between pre& posttest if any. In all case the criterion for spastically significance was set at 0.05level of confidence (p<0.05).

Table 1: Computation of 't' ratio on agility of tennis players on experimental group and control group (Scores in Numbers/Seconds)

Group	Test		Mean	Std. Deviation	T ratio
Agility	Experimental Group	Pre test	11.32	1.08	14.64*
		Post test	10.43	1.25	
	Control Group	Pre test	11.29	0.99	0.82
		Post test	11.26	0.78	

*significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and 't' ratio on agility of experimental and control group. The obtained 't' ratio on agility were 14.64 and 0.82 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the experimental group 't' values were greater than the table value of 2.14, it was found to be statistically significant. The control group 't' value is less then table value of 2.14 it was found to be statistically insignificant.

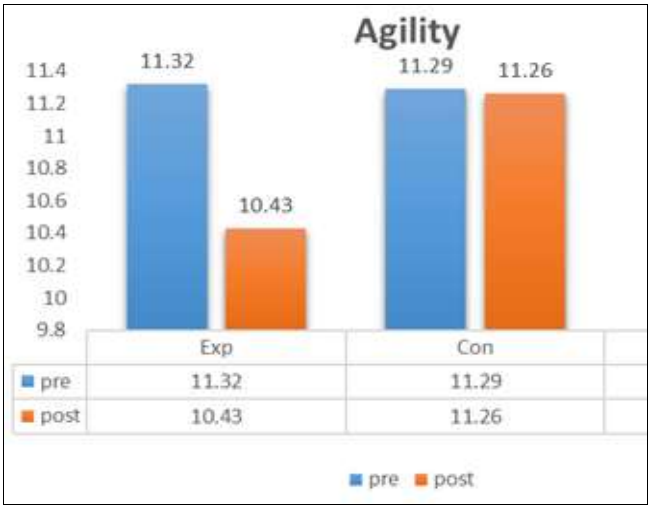

Fig 1: Bar diagram showing the mean value on agility of tennis players on experimental group and control group

Discussion on Findings

The current study examined the effect of ladder training on the selected variables are agility of the women football players. The results of this study indicated that ladder training is more efficient to bring out needed changes over the agility of the women football players.

The 4x10 meter shuttle running test was applied to the subjects participating in the study and the maximum oxygen consumption capacity was determined by the values obtained from 4x10 meter shuttle running test. When the results related to maximum oxygen capacity were examined, mean values of male subjects were statistically higher than female subjects in terms of gender factor. In a study of 11-year-old girls and boys who did not exercise, the mean values of Max VO_2 were 27.76 ml/kg/min and 32.11 ml/kg/min, respectively. In another study conducted at 7-11 years of age, aerobic capacities of 766 male students were reported as 46,4 ml/kg/min.

The result from this study are very hopeful and it proves the benefits of ladder training. The women football players are not only using dance exercises to improve their flexibility but also to improve the presentation. Also, the results support that development in mobility can occur 12 weeks of ladder training.

Conclusions

Based on the result of the study it was concluded that the ladder training have been significantly changes in agility of women football players.

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