International Journal of Research in Social Sciences
Vol. 13 Issue 01, January 2023,
ISSN: 2249-2496 Impact Factor: 7.081 UGC Approved Journal no: 48887
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

COMBINED EFFECTS OF CIRCUIT BASED SKILL TRAINING ON DRIBBLING AND SHOOTING INTERCOLLEGIATE/STATE MEN FOOTBALL PLAYER'S

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ABSTRACT

Thirty male students from Maruthi College of Physical Education in Tamil Nadu were chosen to participate in this research in order to accomplish the goals of the current study. The range of their ages was from 21 to 23 years old. Participants were divided into two groups: group I, which participated in circuit-based skill training (CBSTG), and group II, which served as the control group (CG). There are fifteen male participants in each of the groups. Exercises based on circuits were performed for a total of 12 weeks, five days a week, between the hours of 7:30 and 8:30 in the morning. The dribbling and shooting abilities of the experimental training group were evaluated. Dribbling was evaluated using the Warner test, and shot accuracy was determined using the Morchristian test. These were the chosen criteria variables. Data were gathered and analysed using ANCOVA both before and after a test that was based on circuit-based skill training for a period of twelve weeks. The value of 0.05 was chosen to serve as the significant threshold. The findings of the research indicated that members of the experimental group had made great progress in several aspects of their shooting and dribbling. The performance of chosen criteria variables did not significantly improve in the control group.

Keyword: *Plyometric Training, Foot Reaction Time, Passing Skill and Football.*

INTRODUCTION

Skill-based workouts are often regarded as the most efficient method of training since they enable younger, less specialised players to learn technical abilities while also enabling more experienced athletes to polish and enhance their talents. Training at a high intensity for short bursts is an effective model that can produce effects on a range of skeletal muscle and metabolic adaptations that are comparable to or even superior to those produced by traditional endurance training. This type of training is considered an effective alternative model. A kind of body conditioning or resistance training known as circuit-based skill training involves doing high-intensity aerobic exercises. It emphasises both the growth of strength and the maintenance of physical endurance. A single completion of all of the exercises that are suggested for the programme constitutes one "circuit" of exercises. After one circuit is finished, one returns to the beginning of the circuit to do the initial exercise once again. With circuit training, the time between exercises is often very brief, and the transition from one activity to the next is frequently lightning fast. Training based on circuits is intended to improve cardiorespiratory endurance in addition to developing flexibility, strength, and muscular endurance in critical muscle groups. It is an effective

type of training in terms of the gains that may be gained in a very short amount of time. "A taught capacity to bring about the outcome with utmost accuracy and efficiency," is what people mean when they talk about skill training.

A great technique to build both strength and stamina at the same time is to participate in training that involves circuits. Every ability is practised for a certain amount of repetitions, with scheduled intervals in between, and extensive rest periods in between. Our whole body strength, including the strength and resilience of muscles, tendons, and ligaments, as well as density for bone formation, will improve as a result of our participation in skill-based circuit training. While doing an exercise circuit, each of the recommended exercises is carried out for the amount of time permitted by the trainer in order to enhance a skill that is anticipated to have a major impact. After a good dribble, a player has the opportunity to either score or generate scoring opportunities for his or her team. This is because dribbling provides space in tight circumstances when the dribbler is being marked (closely defended by a defender). Yet, if it is not properly learned and used, dribbling may result in the loss of control of the ball either when it is intercepted by a defender or when it is tackled by an opponent. The lower level, which is shorter, can be moved with less power, and as a result, it is amenable to finer control. In addition, since it can be moved more rapidly (there is less inertia to overcome), it may be utilised to make the most of possibilities to convey precision.

The most popular sport in the world is football, which, in order to compete at a high level, calls for an increased level of physical fitness as well as increased talent. Plyometric training is one of the most effective training techniques available, and one of the many scientific and methodical training approaches that may be used to improve it. Plyometric training is one of the most essential training techniques for football players because it helps players to move quicker and enhances muscular strength in a way that affects all biomotor functions. Throughout the course of the match, the high-demand actions are also carried out inside a particular setting. To put it simply, the primary objectives of the players are to improve their performance in areas like as strategy, technical ability, and psychological capability. The success of a sporting event consistently motivates sports researchers and coaches to examine and assess the performances of the players in order to improve such performances. When it came time to play the match, several measures were used to evaluate performance. This scale not only offers the results of competitive matches but also the information on the process of training. It is the primary factor that players take into consideration while making decisions, and it necessitates a testing procedure for a variety of occurrences. Before and after undergoing the training approach, the foot response time and skill related performance of football players are measured using the Nelson reaction time test and passing test. Because of their strong connection to high levels of performance, these components and skills are very important for football players to cultivate throughout their careers. The primary objective of the research was to determine whether or not plyometric training had a positive impact on the skill-related performance of football players. Both the component and the skill play important roles in the enhancement of the athletic performance of football players, as well as the athletic performance of players in other sports and disciplines. If we look at the gap between their performance and that of present competitors, we find that it was far lower. Only by

adhering to the scientific and methodical training techniques will we be able to achieve this goal.

The capacity to move instantly in the shortest amount of time possible is referred to as a person's foot response time, and it is an essential component of physical fitness. Several forms of exercise, namely weight training, plyometric training, and speed training, may help enhance a person's foot response time. The purpose of this study was for the researcher to examine how a plyometric training programme that lasted for five weeks had an effect on the fitness component and skills related performance of male football players. The ability to react quickly is an essential component of athletics, and its development is directly correlated with muscular strength and the efficient operation of the nervous system. When a player has higher muscular strength and when their nerves and nervous system are functioning well, that player will have a better function of their foot response time capacity. Humans have two different kinds of muscle fibres: slow-twitch (type-I) muscle fibre, which helps the athlete for long-term activity, and fast-twitch (type-II) muscle fibre, which helps the athlete move more quickly. Slow-twitch muscle fibres are more common in humans.

Plyometric training strengthens both the athlete's nervous system and their capacity to lift weights, both of which are directly tied to the improvement of each player's fitness component and their talents. The athletes may improve their already high level of performance with the assistance of a solid fitness component and talent. Research studies have shown that plyometric training, when combined with a periodized training programme, can improve muscle power, leg strength, the nervous system, and acceleration. These improvements are highly related to the improvement of players' foot reaction time and passing skill, both of which help football players improve their performance level. The ability of a football player to shift their foot promptly while a player is moving with the football or when opposing players are attempting to defend themselves is an essential component of foot response. Competitors are judged not just on their shooting ability but also on their passing ability. The ability to pass the ball accurately enables a player to advance in the direction of play with the ball more quickly than their opponents..

OBJECTIVES

1. To study combined effects of circuit based skill training on dribbling
2. To study and shooting intercollegiate/state men football player's

RESEARCH METHODOLOGY

For the research, a total of twenty (20) individuals were chosen, all of whom had previously competed in a football competition on at least one of the following levels: inter-college, state, and national. The ages of the participants ranged from 18 to 25 years old. The plyometric training programme (PTP, n=20) was completed by all of the participants..

Study Design

ICFAI University Tripura provided the researchers with a total of twenty (20) participants to use for their research; all of these individuals had previously competed in at least one

inter-college or state-level football competition. The ages of the participants ranged from 18 to 25 years old. The plyometric training programme (n = 20, all subjects) was completed by all of the participants. the plyometric training group participated in the programme for a total of five weeks, three times each week. The data for the pre-test and post-test were chosen using the Nelson hand reaction time test to determine the foot response time and the Mor – Cristian General Soccer Ability Test to determine the passing ability. In order to conduct the analysis of the data, we made use of the SPSS programme and the Paired samples t-test. The level of significance, which was set at 0.05 levels of confidence, was considered to be significant.

Training Programme

The research was designed to be carried out using a genuine random group format, and it included both a pre-test and a post-test. Throughout the training period, the group who participated in plyometric training did so for a total of five weeks, three times each week. The experimental group worked out for one hour in the morning session. They began with a warm-up and then carried on to complete some plyometric activities that the researcher had predetermined. At the beginning of the training, each session consisted of three sets with an intensity of 80%. During the first week of the training, each session continued to consist of three sets with an intensity of 95% up to a total of five weeks.

Statistical Analysis

IBM SPSS statistic 20 was used in order to do the analysis on the data. In order to determine whether or not there was a significant difference between the Mean and Standard Division of the before and post test, a Paired Samples t-test was carried out. The degree of confidence was set at 0.05, which was the significance threshold.

RESULT

Table-1, demonstrates that the differences between the Before and Post tests taken by the experimental group are shown by the mean and standard deviation.

Sl. No	Variables	Groups	Test	Mean	SD	Std. error mean	df	't' Value
1	Foot Reaction Time	Experimental	Pre test	.6442	.05206	.01164	19	3.341
			Post test	.5906	.04326	.00967		
2	Passing	Experimental	Pre test	5.0000	1.52177	.34028		-6.474
			Post test	6.7000	1.38031	.30865		

***Significant at 0.05 level.**

According to the data shown in the table above, the researcher carried out his experiment using a design consisting of a single pre-test and post-test, and he conducted the test both before and after the plyometric training. According to the data shown in the table above, the researchers determined that the mean value of foot reaction time (Pre test.6442 and Post test.5906) and the standard deviation value (Pre test.05206 and Post test.04326) before and after training, respectively, are as follows: On foot reaction time, the obtained "t" ratio value is 3.341, and it is more than the tabulated value of 2.093 at a level of confidence of 0.05. This is because the tabulated value is based on foot response time, and there are 19 degrees of freedom. According to the findings of the research, male football players who participated in plyometric training had a discernible improvement in their foot response time compared to those who did not.

The standard deviation of passing scores was (Pre test 1.52177 and Post test 1.38031) before and after training, respectively. The mean value of passing was (Pre test 5.0000 and Post test 6.7000).

The obtained "t" ratio value of passing is -6.474, and on passing it has a value that is higher than the tabulated value of 2.093 with a degree of freedom of 19 at a confidence level of 0.05. According to the findings of the research, male football players who participated in plyometric exercise showed a discernible improvement in their passing performance after undergoing the programme.

Figure 1 displays the graphical depiction of the mean comparison of foot response time and passing.

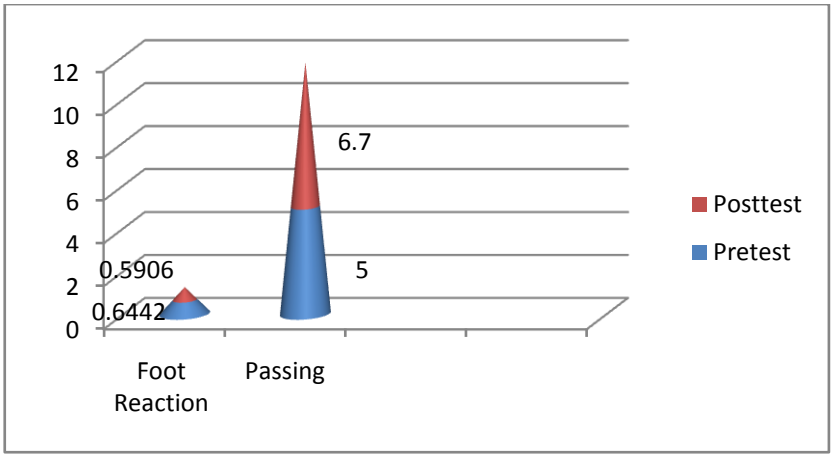

Fig:1- There is a significant mean difference between the foot response time of males and their passing ability. Participants in Football

The research done by the aforementioned organisations has shown that the effectiveness of plyometric training can be broken down into two categories, namely foot response time and passing, both of which football players have demonstrated. The researchers have employed both before and post tests to evaluate the participants' performance in a variety of categories. Plyometric training was arranged after a pre test was administered, and then after five weeks of plyometric training, a post test was carried out on the field.

The foot response time variable demonstrates a reduction in the amount of time that male football players spend on the field, going from 0.6442 to 0.5906. According to the statistics, male football players had a longer foot response time before beginning plyometric training. Nevertheless, this time has significantly decreased as a result of the training, indicating that the players have significantly improved as a result.

The passing variable demonstrates that male football players have significantly improved from 5.000.000 to 6.7000. According to the findings, male football players had a lower performance level in passing before they began plyometric training. But, once they began the training, their passing counts increased, indicating an overall improvement in their play as football players.

Conclusion

According to the findings of the research, plyometric training may shorten the amount of time it takes for football players to respond with their feet and can improve their ability to pass the ball. When the results of the pre-test and the post-test were compared, it was determined that the men's football players had greatly improved as a result of the plyometric training programme that lasted for five weeks. Plyometric training was shown to be the most effective training strategy for enhancing the foot response time and passing ability of male football players.

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