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# Influence of plyometric training and mobility exercise on motor fitnees parameters among college cricket men players

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***Abstract*---**The reason for the review was to discover the effect of PT and ME on chosen speed and Flexbility measures among school men cricket players. To accomplish the reason for the review 45 cricket players from Hindustan college players from Chennai were chosen indiscriminately and their age went from 18 to 25 years. The subjects were separated into three equivalent gatherings of fifteen each. G-I went about as Experimental Group plyometric preparing and G- II Experimental portability exercise and G- III go about as CG. The necessity of the investigation system testing just as exercise plan was disclosed to the subjects to get full co-activity of the work needed on their part and preceding the organization of the review. The review was defined as a post test just irregular gathering plan. The length of trial period was two months. After the test, every one of the subjects were tried on speed and flexibility. This last grades shaped as post grades of the subjects. The post grades were exposed to factual investigation utilizing examination of co-change. For all situation 0.05 degree of certainty was fixed to test theories. The PT and ME, both in regular/earthly and fake conditions, has been set up as a viable means to enhance speed and Flexbility among school men cricket players subsequent to going through PT and ME for a time of about two months.

***Keywords*---**plyometric training, mobility exercise, speed, flexibility, cricket players.

## Introduction

Cricket is a bat-and-ball game played between two gatherings of eleven players on a field at the point of convergence of which is a 22-yard (20-meter) pitch with a wicket at each end, each including two bails changed on three stumps. The game returns when a player in the taking care of gathering, called the bowler, "bowls" (pushes) the ball from one completion of the pitch towards the wicket at the furthest edge.

Plyometrics (Plyo – more prominent, metric – estimated amount) practices depends on the conviction that a fast extending of a muscle only preceding a constriction will bring about a lot more grounded compression.. They are extremely unique estimations which utilize gravitational power body and the contractibility and flexibility of muscle tissue to build the power of weight on related muscles. Plyometric preparing might be considered to be an expansion of the 'shock' technique for fortifying muscles for competitor's exhibition suggested by Verkhoshonkia Russian Jumping occasion Coach (1966).

Versatility, especially in the lower legs and hips, is fundamental for remaining without injury and moving effectively during the season. Each time a player runs or hops (which happens once in a while in ball), they perform "triple augmentation" they reach out at the lower legs, they stretch out at the knees, and they reach out at the hips. Assuming any of those three joints can't go through a full scope of movement, then, at that point, the player will not have the option to run as quick or bounce however high as they seem to be able to do. Then again, every time a player lands from running and hopping, they need the effect on disperse through those equivalent three joints. In the event that any of 11 those three joints can't flex as expected to ingest the effect, it adds huge strain to the following nearest joint. For instance, a player with tight, stable lower legs or hips isn't just restricting their capability to run and bounce, they are likewise causing extra, and superfluous, sway on their knees. There are various straightforward activities that assist with further developing lower leg portability while reinforcing them to ensure against injury. Add these activities into your ordinary exercise routine and practices to further develop execution and forestall strains, breaks and injuries.

## Methodology

The motivation behind the review was to discover the Impact of PT and ME on chosen actual factors among men cricket players. To accomplish the reason for the review, 45 cricket players from Hindustan University Chennai were chosen. The chose subjects' age bunch was going from 18 to 25 years. The subjects were arbitrarily separated into three gatherings and each gathering comprised of 15 subjects. G-I went about asPT , G- II went about as versatility works out, G- III went about as CG. G- I and II took an interest their individual medicines for a time of twelve weeks and no preparation were given to the benchmark group. The three groups were genuinely examined by utilizing examination of covariance (ANCOVA). If there should be an occurrence of meaning of mean distinction was seen on the basis measure, as a post – hoc test, the Scheffe's test was applied to discover which pair of gathering is high among the others.

Table –I

| Independent variable | Dependent variable |
|---|---|
| Plyometric training | Speed |
| Mobility training | Leg explosive power |

Table – II

| S.NO. | VARIABLES | TEST ITEMS | UNITS |
|---|---|---|---|
| 1 | Speed | 50 Mts Run | Seconds |
| 2 | Flexibility | Sit and reach | Centimeters |

Table-1.3 Analysis of Covariance for the Pre, Post and Adjusted Post Test Means Values forPTG ,MEG and CG on Speed

| Test | PTG | MEG | CG | Sum of variance | Sum of Squares | Df | Mean Squares | F ratio |
|---|---|---|---|---|---|---|---|---|
| Pre Test Mean | 7.54 | 7.65 | 7.87 | BG | 0.81 | 2 | 0.40 | 1.35 |
| | | | | WG | 12.58 | 42 | 0.30 | |
| Post Test Mean | 6.82 | 6.68 | 7.58 | BG | 7.04 | 2 | 3.52 | 20.18* |
| | | | | WG | 7.32 | 42 | 0.17 | |
| Adjusted Post Test Mean | 6.84 | 6.69 | 7.55 | BG | 6.03 | 2 | 3.01 | 17.82* |
| | | | | WG | 6.93 | 41 | 0.16 | |

*Significantat 0.05 level of confidence

PTG , MEG , and CG PET midpoints for speed were 7.54, 7.65, and 7.87, separately. For the PET on speed, the 'F' esteem was 1.35. At the 0.05 degree of certainty, it neglects to accomplish the table worth of 3.22 for DF-2, 42. PTG , MEG , and CG . POT midpoints for speed were 6.82, 6.68, and 7.58, separately. For the POT on speed, the 'F' esteem was 20.18. At 0.05 degree of certainty, it was more prominent than the table worth of 3.22 for DF2, 42. PTG , MEG , and CG changed POT midpoints for speed were 6.84, 6.69, and 7.55, separately. The adjusted POT on speed yielded a 'F' rating of 17.82. At 0.05 degree of certainty, it was higher than the table worth of 3.23 for DF2, 41. In contrast with the CG, the PT and MEG showed extensive upgrades in speed.

Table-1.4
The Scheffe's Test for the Difference between Paired Means on Speed

| Means | | | Mean Difference | Required CI |
|---|---|---|---|---|
| PTG | MEG | CG | | |
| 6.84 | ---- | 7.55 | 0.71* | 0.47 |
| ---- | 6.69 | 7.55 | 0.80* | 0.47 |
| 6.84 | 6.69 | ---- | 0.15 | 0.47 |

*Significant at 0.05 level of confidence

PTG , MEG , and CG changed post mean qualities were 0.71, 0.80, and 0.15, separately. 0.47 was the necessary certainty stretch worth. It was observed that

the MEG is superior to the PTG and the CG in light of the fact that the procured mean contrasts between test gatherings and CG are greater than the acquired basic stretch worth on speed.

Figure 1.5
Bar Diagram Showing the Pre, Post and Adjusted Post Test Mean Values ofPTG ,MEG and CG on Speed

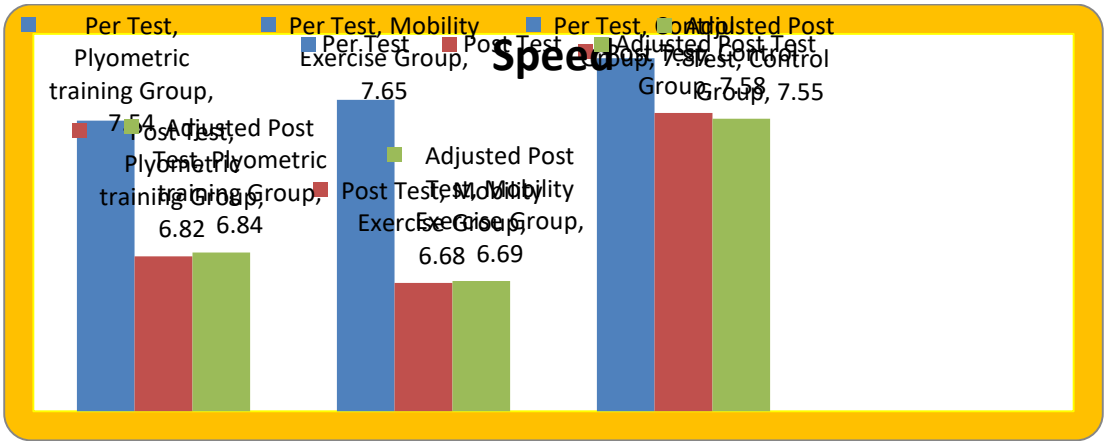



Table-1.6
Analysis of Covariance for the Pre, Post and Adjusted Post Test Means Values forPTG, MEG and Control Group On Flexibility

| Test | PTG | MEG | CG | Source of Variance | Sum of Squares | Df | Mean Squares | F ratio |
|---|---|---|---|---|---|---|---|---|
| Pre Test Mean | 21.53 | 22.46 | 21.06 | BG | 15.24 | 2 | 7.26 | 1.66 |
| | | | | WG | 192.40 | 42 | 4.58 | |
| Post Test Mean | 29.93 | 27.93 | 20.73 | BG | 619.20 | 2 | 309.60 | 63.86* |
| | | | | WG | 203.60 | 42 | 4.84 | |
| Adjusted Post Test Mean | 29.27 | 27.27 | 21.27 | BG | 505.46 | 2 | 252.73 | 185.90* |
| | | | | WG | 55.73 | 41 | 1.35 | |

*Significant at 0.05 level of confidence

The PET midpoints for the flexibility PTG , MEG , and CG , separately, were 21.53, 22.46, and 21.06. For the PET on flexibility , the 'F' esteem was 1.66. At the 0.05 degree of certainty, it neglects to achieve the table worth of 3.23 for DF2, 42. As per the discoveries, the mean contrasts in flexibility prior to beginning the different medicines between the PTG , MEG , and not set in stone to be unimportant. PTG , MEG , and CG. POT flexibility midpoints were 29.93, 27.93, and 20.73, individually. The POT on speed yielded a 'F' worth of 63.86. At 0.05 degree of certainty, it was more noteworthy than the table worth of 3.23 for DF2, 42. The noticed F-esteem on post test implies for flexibility among the gatherings, in particular PT,ME and CG was exceptionally huge, as the worth was more prominent than the required table worth of 3.23. Because of the discoveries, not really set in stone that the flexibility preparing impressively affected the trial

gatherings. PTG , MEG , and CG changed POT midpoints for flexibility were 29.27, 27.27, and 21.27, individually. The rectified POT on flexibility yielded a 'F' worth of 185.90. At 0.05 degree of certainty, it was higher than the table worth of 3.23 for DF2, 41. Since the noticed F-esteem on changed post test implies on flexibility among the gatherings PT, ME and CG was higher than the necessary table worth of 3.23, the worth was profoundly critical.

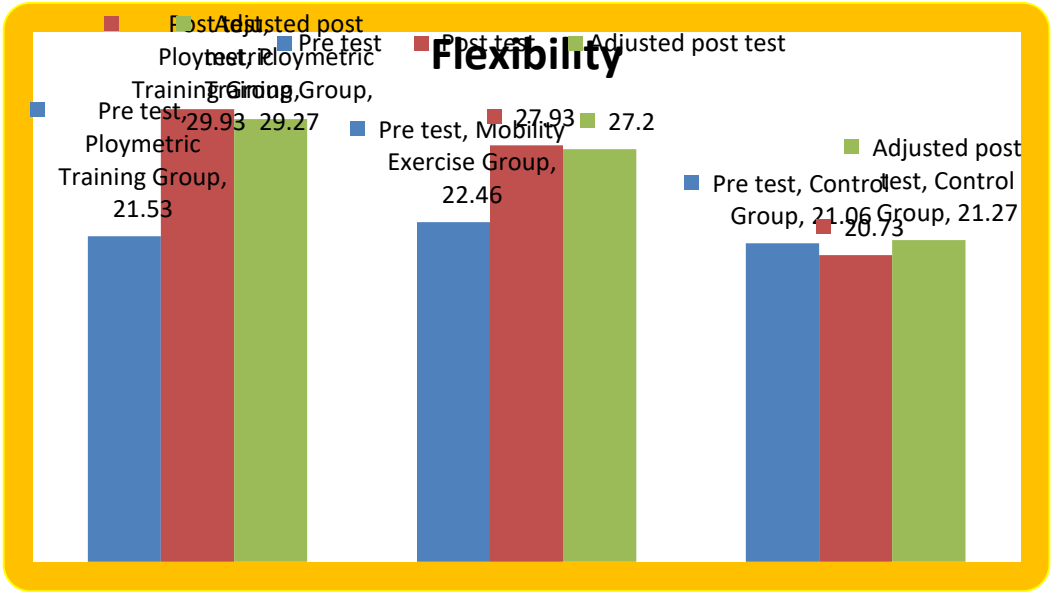
Table-1.7. The Scheffe's Test for the Difference between Paired Means on Flexibility

| Means | | | Mean Difference | Required CI |
|---|---|---|---|---|
| PTG | MEG | CG | | |
| 29.27 | ---- | 21.27 | 7.99* | 2.07 |
| ---- | 27.27 | 21.27 | 5.99* | 2.07 |
| 29.27 | 27.27 | ---- | 2.01 | 2.07 |

*Significant at 0.05 level of confidence

The significant difference in paired adjusted post test averages of the PTG ,MEG , and CG on Flexibility is shown in table 1.5. The mean differences between the plyometric training and control groups, the mobility exercise and control groups, and the plyometric training MEG s were 5.99, 7.99, and 2.01, respectively. 2.07 was the required confidence interval value.

Figure 1.8
Cylinder Diagram Showing the Pre, Post and Adjusted Post Test Mean Values ofPTG ,MEG and CG on Flexibility




**Conclusions**

The following conclusions were formed based on the research findings:

1. When compared to the control group, the PT and ME showed substantial improvements in speed and flexibility.
2. PT and MEresulted in a considerable increase in speed among male cricket players.
3. PT and ME resulted in a substantial increase in flexibility variables among male cricket players.

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