



# Effect Of Plyometric Training And Specific Skill Training On Fast Bowling Among Polytechnic Cricket Men Players In Chennai District

T.G. Mugunthan<sup>1\*</sup>, under the guidance of Dr. R. Rajaram<sup>2</sup>, Dr.D.Devaki<sup>3</sup>

<sup>1\*</sup>Physical Director,

<sup>2</sup>Assistant Professor cum Director of Physical Education, CPT, Chennai,

<sup>3</sup>Assistant Professor cum Director of Physical Education GPTC. Dr. RK nagar, chennai

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## ARTICLE INFO

## ABSTRACT

This study was designed to investigate the effects of plyometric training and specific skill training on selected fast bowling among cricket men players. To assist the study, forty-five cricket players from Polytechnic, Chennai, District, India was selected as subjects at random and their ages between 15 to 18 years. The subjects were separated into three equal groups. Group-I undergone plyometric training, Group-II specific skill training and Group-III was control. Achievement motivation and back fast Bowling were selected as variable and it was assessed by three Cricket Coach expert :20-point rating method test. Pre-test was conducted and data scored. The subjects were involved with their respective training for a period of eight weeks. At the end of the eight weeks of the training post-tests were taken. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by paired 'f' ratio and ANACOVA. The level of significance was fixed at 0.05 level of confidence for the degree of freedom. The plyometric training and specific skill training group produced significant improvement in Fast Bowling. The 'F' values of the selected variables have reached the significant level. In the control group the obtained 'F' value on Fast Bowling were failed to reach the significant level.

**KEYWORDS:** Plyometric training, Specific skill training, Fast bowling.

## Introduction

Bowlers may be categorised according to their use of swing bowling or seam bowling techniques, although the term "seamer" is also commonly used to refer to pace bowlers in general.

A widespread method of classification is based on average ball release speed. However, there is no universally accepted set of definitions and the categorization of bowlers according to speed may take into account competition level Fast bowling is one of two main approaches to bowling in the sport of cricket, the other being spin bowling. Practitioners of pace bowling are usually known as fast bowlers, quicks, or pacers

## Design

The evaluated Fast Bowling was assessed by three experts in Cricket SDAT, Chennai and the unit of measurement was in points, and after 8 weeks of training were examined.

## Training Programme

The training programme was lasted for 45 minutes for session in a day, five days in a week for a period of eight weeks duration. These forty-five minutes included warm-up and warm-down Practices, Group-I acted as control , Group-II undergone plyometric training, and Group-III specific skill training.

## Statistical Analysis

The collected data before and after training period of 8 weeks on the fast-bowling variable due to the impact of Group-I plyometric training, Group-II specific skill training practices was statistically analysed with

ANACOVA to find out the significant improvement between pre and post-test. In all cases the criterion for statistical significance was set at 0.05 level of confidence.

**Analysis Of Covariance Of Data On Fast Bowling Between Pre And Post-Test Cg Ptg And Sstg Groups**

Test	CG	PTG	SSTG	SOV	Sos	df	MS	Obtained 'F' ratio
<b>Pre test Mean</b>	2.40	2.28	2.39	B	3.44	2	1.72	1.29
<b>SD</b>	1.12	1.29	1.12	W	54.71	42	1.33	
<b>Post test Mean</b>	2.40	7.60	8.43	B	321.32	2	160.66	37.79*
<b>SD</b>	1.12	2.41	2.38	W	178.58	42	4.25	
<b>Adjusted post-test mean</b>	2.38	7.63	8.45	B	323.42	2	161.71	38.99*
				W	170.03	41	4.15	

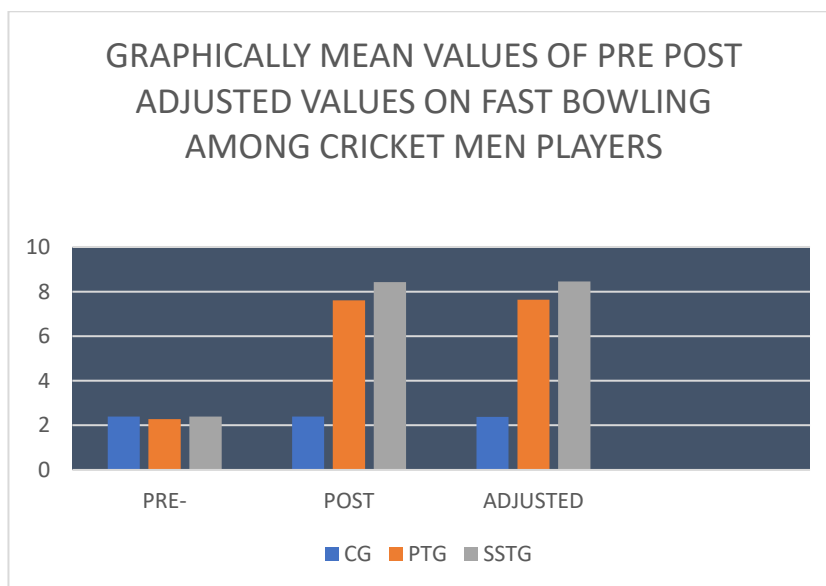
Table I reveals the computation of mean, standard deviation and 'F' ratio on Fast Bowling in cricket with experimental groups. The obtained 'F' ratio on Fast Bowling was 2.40, 2.28 and 2.39 respectively. The required f ratio was 1.29 for the degrees of freedom 2 and 42 at the 0.05 level of significance. Since the obtained 'F' ratio was greater than the table value it was found to be statistically significant.

Further the computation of mean, standard deviation and 'F' ratio on Fast Bowling control group. The obtained 't' ratio on Fast Bowling were 2.40, 7.60 and 8.43 respectively. The required table value was 3.22 for the degrees of freedom 2 and 42 at the 0.05 level of significance. Since the obtained 'f' ratio was greater than the table value it was found to be statistically significant. the adjusted post-test value was also greater than table value, the significant 'F' ratio was 38.99.

**Scheffé's Post Hoc Test For The Difference Between Three Paired Adjusted Posttest Means Of Fast Bowling**

Adjusted Post Mean Test			Mean Difference	Confidence Interval
CG	PTG	SSTG	-	
2.38	7.63	-	5.25	2.13
2.38	-	8.45	6.07	2.13
-	7.63	8.45	0.82	2.13

Table II reveals the computation of mean, standard deviation and 'F' ratio on Fast Bowling in cricket with experimental groups. The obtained adjusted mean values on Fast Bowling were 2.38, 7.63 and 8.45 respectively. The confidence interval was 2.13.



## Results and Discussion

In this study showed its significant improvement of fast bowling. This study oriented reviews revealed their supports of improvement -result like, Debabrata sarkar and Mahesh singh Dapola 2022 examined in effect of plyometric training and core training on skill related performance variables among male medium fast bowlers in cricket that revealed the significant improvement observes in bowling velocities as well as in throwing distances.

Akilesh and others 2022 most important determinants of a cricket fast bowler's performance are bowling speed and accuracy. Even though various strength and conditioning practices (resistance, plyometric and modified-implement training) have been employed to improve these parameters, there is still ambiguity as to the effectiveness of such training programmes. This systematic review and meta-analysis examined the influence of various training interventions on fast bowling speed and accuracy. Searches were conducted across many websites; ten articles met our inclusion criteria for qualitative and eight for quantitative analysis. The quality of the studies assessed using Downs and Black checklist ranged from low to moderate with a mean  $\pm$  SD of  $64.5 \pm 8.14\%$ . There was a **moderate** and significant effect of plyometric training intervention on bowling speed (SMD = 0.75;  $Z = 2.98$ ;  $p = 0.003$ ). Further, a small and non-significant effect of resistance training on bowling speed was observed in our study (SMD = 0.40;  $Z = 1.39$ ;  $p = 0.164$ ). The findings from our study are useful for strength and conditioning coaches in helping to design and implement fast-bowling specific training programmes for improved bowling speed.

**Babar Bashir and others 2018** The study was to investigate the effect of plyometric and resistance training on agility, speed and explosive power in cricket players. **Babar Bashir and others 2018** The study was to investigate the effect of plyometric and resistance training on agility, speed and explosive power in cricket players. Plyometric exercises also showed more favorable effects on study variables compared with resistance exercises. Therefore, these types of training methods are suggested to cricket players for improving speed and performance skill.

## Conclusion

This research reviewed that there was a significant improvement in Fast bowling among cricket men players due to plyometric training and selected skill training groups have when comparatively with control group. Even that there was a significant difference between plyometric and selected skill training groups. Hence training is supported recommended for cricket players in further researches, scientists, students and public welfares.

## References

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