

Shoulder & Wrist Flexibility Between Bowlers In Cricket: A Comparative Study

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Abstract

The objective of the study is to compare shoulder & wrist flexibility between bowlers in cricket. Sixty (60) university level male cricket players (30 spinners & 30 medium pace bowlers) of West Zone Intersarsity were selected for the purpose of this study. The selected subjects were from the age group of 18 to 25 years. Shoulder & Wrist flexibility test were taken as a criterion measures. The shoulder & wrist flexibility test mean value of spinners is 7.3 & that of medium pace bowler is 10.1. The calculated t values were 4.38 for shoulder & wrist flexibility, were greater than table value ($df = 58$) 2.00 at 0.05 level of confidence.

Keywords: Shoulder & Wrist flexibility, Bowlers, Cricket

Introduction

Flexibility is one of the main motor fitness components, important for success in many sports. Certain sports, such as gymnastics, it is one of the most important physical attributes. In many other sports, including team field sports, good flexibility is an important part of the overall fitness profile. Good flexibility is also important for injury prevention. Stretching exercises can be used in injury rehabilitation, preparation for sport (warm up), and for recovery after exercise.

When Cricket bowler thinks of flexibility, the first work that comes to mind is; shoulder. While bowling a ball is a total body commitment, with core and legs doing a large part of the pitch, a strong and flexible shoulder allows for a correct technique.

A Cricket Bowl is unique in its biomechanics. Compared to other throwing sports, such as football or javelin, the bowl involves more muscle fibers in the upper body and more extreme range positions of the shoulder joint. Having external and internal rotators stretch within split second of each other puts severe strain on the joint, and a large risk. To minimize the risk, caution range of motion needs to be present were possible. On the top of that maximum strength needs to be developed and connected to the middle ranges. The standard approach is to stretch the shoulder in standard anatomical movements. Resistance band, cable and dumbbell work is done for the rotator cuff as well as the deltoid. This program takes a different approach. For maximum flexibility gains, the Zaichik Stretching Techniques are used. All the movers of

the scapula and shoulder are taken apart and stretched one by one, using action vs action of each muscle.

Methodology

Sixty (60) university level male cricket players (30 spinners & 30 medium pace bowlers) of West Zone Intersarsity were selected for the purpose of this study. The selected subjects were from the age group of 18 to 25 years.

Criterion measure: To compare the subjects (spinners & medium pace bowlers) of the study the selected variable that is shoulder & wrist flexibility were taken as a criterion measure.

Administration of Test

Static Flexibility Test - Shoulder & Wrist: The objective of this test is to monitor the development of the athlete's shoulder and wrist flexibility.

Required Resources: To undertake this test, you will require:

- 18" Stick
- Metre Ruler
- Assistant

Conduct of the test: The athlete warms up for 10 minutes. The athlete lies prone on the floor, forehead on the ground, and arms extended holding the 18" stick with both hands shoulder width apart. The assistant measures and records the athlete's arm length from the acromial extremity to the stick. The athlete raises the stick as high as possible whilst keeping their forehead on the ground. The assistant measures and records the vertical distance from the ground to the bottom of the stick. Repeat the test 3 times recording the vertical distance achieved, the

assistant subtracts the longest recorded vertical distance from the recorded arm length and the result is used to assess the athlete's performance.

Assessment: The following normative data is available for this test. The table, adapted from Johnson (1986), is for athletes aged under 36.

Rating	Men	Women
Excellent	<6.0	<5.50
Good	6.00 -8.24	5.50 -7.49
Average	8.25 – 11.49	7.50 -10.74
Fair	11.50 – 12.50	10.75 – 11.75
Poor	>12.50	>11.75

Statistical methods: For determining the significant difference comparison of shoulder & wrist flexibility of the spinners & medium pace bowlers, 't' test was employed. For testing the hypothesis of independent variables the level of significance was set at 0.05 level of confidence.

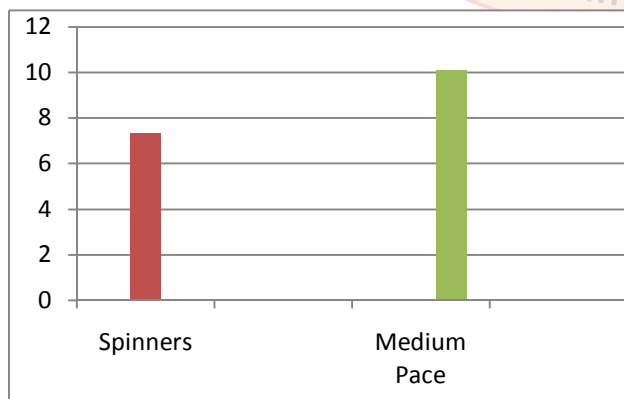
Findings

Mean and standard deviation of the spinners & medium pace bowlers on shoulder & wrist flexibility are presented in Table 1.

Table-1.

Bowlers	Mean	S.D.
Spinner	7.3	2.1
Medium Pace	10.1	2.8

Graph – 1



The graphical representation of mean scores of shoulder & wrist flexibility between spinners and medium pace bowlers

In order to compare the shoulder & wrist flexibility of the spinners & medium pace bowlers are presented in Table 2.

Table- 2

Bowlers	Subject s	Mean	S.D	SE M	SED	t
Spinner	30	7.3	2.1	0.83	0.639	4.38*
Medium Pace	30	10.1	2.8	0.51		

*significant at at 0.05 level

Conclusion: On the basis of above results following conclusion are drawn:

1. The spinners have good shoulder & wrist flexibility, whereasthe medium pace bowlers have average shoulder & wrist flexibility.
2. The spinners have better shoulder & wrist flexibilityas compare tothe medium pace bowlers.

Discussion of findings

The result of this study revealed that there is a significant difference between spinners and medium pace bowlers on shoulder & wrist flexibility. This may be attribute to the fact that the spinner while delivering the ball the bowler undergo through a great deal of range of motion or movement, the spinner twist their body enormously as compare to medium pace bowler, that may be the reason that the following results occur.

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