

Effect of Selected Asanas on the Flexibility of Ranji level Wicket Keepers in Cricket

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Abstract- The purpose of the present study was to study the effect of selected asanas on the flexibility of wicket keepers in Cricket. A total No. of 30 wicket keepers, ages ranging between 21 to 30 years were randomly selected to act as subject for the study. Sit and Reach test was conducted to measure the flexibility. The asanas were considered as independent variables: Sarvangasana, Matyasana, Pawanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana,, Ardhamatsendrasana, Pashchimatanasana, Vajrasana, Ustmasana, Katichakrasana, Padmasana, and Savasana, and on the other hand Flexibility was considered as the dependent variable. Sit and Reach box was used to measure the flexibility of lower hamstring and lower back muscle. The training was designed for nine weeks on alternate days and the duration of one day program had 45 minutes. The data was collected before the training program, after two weeks, four weeks, on the sixth week, and finally on the eighth week of training program. The data was collected and the same was analyzed by computing the descriptive statistics, whereas to assess the significant effect of training program on flexibility repeated measure ANOVA was computed, the level of significance was set at 0.05 level. The results reveals that there was a significant difference wicket keepers in pre and post test as the mean and standard deviation value of the pre test was 32.43 and 7.31 respectively, whereas the mean and standard deviation values of the post test1, post test2, post test3 and post4 were found to be 34.30 and 7.51, 35.60 and 6.95, 36.50 and 6.84 and 38.53 and 7.50 respectively. The values of Repeated Measure One Way ANOVA shows that the F value of assumed Sphericity was found to be 27.62 against the tabulated value of 2.44 which was significant at 0.05 level. The finding of the present study has strongly indicated that asana training has improved the flexibility of the wicket keepers in cricket. Hence the hypothesis previously said that asana training will improve flexibility of Cricket players is accepted.

Index Terms- Asanas, Flexibility, wicket keeper.

I. INTRODUCTION

Today's life is full of stress and strain of tension and nervous irritability of hungry and excitement if anyone put into practice a few of the elementary principle of yoga he will be far better equipped to cope with his complex existence. The term yoga comes from the words Sanskrit word 'yuj' which means to joint yoke together to unify and to unite as one yoga has existed from the ancient times but was integrated and simplified by patanjali in the fifth A.D century. With the help of yogic exercises we will increase the flexibility or elasticity of our

body and make the body more active and supple. The greater the concentration will be the greater the advantage to the body and mind. Increase the practice body will become more and more elastic and flexible day by day ¹.

Swami Sivanand (1987-1963) point out that after doing yogic exercise human body is more powerful as the human 'AURA' is more. And they found that human 'AURA' is clearer and gain flexibility after yogic exercise or activities. In modern civilization the asana is generally practiced in the form of exercise .Through the practice of asana, one can achieve organic and functional promotion of health fitness (Vinekar 1975)

Asana means a posture or stance it has three classes of asana cultural meditative and relaxative asana .Asana has certain special pattern of posture that stabilized the mind and body. Flexibility can be defined as the ability to execute movement with greater amplitude or range.

II. FLEXIBILITY IN CRICKET

Flexibility refers to the ability to move a joint and the surrounding muscles through a full range of motion. Flexibility is critical in Cricket because of the joint stress associated with dynamic multi-joint movements like Wicket Keeping, batting and bowling. Lack of range of movement can lead to injury and a reduction in speed, agility, strength and endurance potential. It can also limit your individual cricket skills.

Certain approaches to stretching will dictate the outcome - if you wish to increase your range of movement on a permanent basis, you need to include regular sessions in your program. The main principle during this session is that you must hold each stretch for a long period of time and during a dedicated session i.e. not as a pre-workout stretch. Conversely, if you are preparing for a game or training session, your approach is elastic elongation - these stretches promote temporary muscle lengthening and should be held for less time i.e. 10 seconds, so that the muscle does not become too loose before training, which is a hazard.

III. OBJECTIVES AND HYPOTHESIS

The objective of the study was to assess the effect of selected asana training on the flexibility of the wicket keepers in cricket. Further it was hypothesized that there would be a significant effect of asana training program on the flexibility of the cricket players.

IV. PROCEDURE AND METHODOLOGY

A total No. of 30 wicket keepers from cricket, with age ranging between 21 to 30 years of age, with Ranji Trophy as minimum level of participation were randomly selected to act as subject for the study. The scholar selected the flexibility as a dependant variable. Sit and Reach test was conducted to measure the flexibility. The asana were considered as independent variables. Sit and Reach box was used to measure the flexibility of lower hamstring and lower back muscle. The training was designed for nine weeks on alternate days and the duration of one day program had 45 minutes. The data was collected before the training program, after two weeks, four weeks, on the sixth week, and finally on the eighth week of training program. The data was collected and the same was analyzed by computing the descriptive statistics, whereas to assess the significant effect of training program on flexibility repeated measure ANOVA was computed the level of significance was set at 0.05 level.

V. RESULTS AND DISCUSSIONS

The appropriate statistical techniques were employed and the results pertaining have been presented in the following tables:

Table-1: Descriptive Statistics of Pre test and Post tests on Sit & Reach Test.

	Mean	Std. Deviation	N
pretest	32.43	7.305	30
post1	34.30	7.507	30
post2	35.60	6.946	30
post3	36.50	6.842	30
post4	38.53	7.500	30

Table no.1 depicts the values for descriptive statistics of the pre and post for the sit and reach test, which shows that the mean and standard deviation value of the pre test is found to be 32.43 and 7.31 respectively, whereas the mean and standard deviation values of the post test 1, post test 2, post test 3 and post test 4 are found to be 34.30 and 7.51, 35.60 and 6.945, 36.50 and 6.84 and 38.53 and 7.50 respectively

Table-2: Mauchly's Test of Sphericity

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Sit and Reach	.616	13.271	9	.151	.812	.927	.250

Table No.2 depicts the values for Mauchley's test of Sphericity for sit and reach test, which shows that the Huynh-Feldt value of Sphericity was found to be 0.927 which is closer to 1, hence the data is applicable for the test to be analyze

Table-: Repeated Measure One Way ANOVA of Sit & Reach Test of Within Subjects.

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Sit and Reach	Sphericity Assumed	631.560	4	157.890	27.615	.000
	Greenhouse-Geisser	631.560	3.250	194.336	27.615	.000
	Huynh-Feldt	631.560	3.709	170.299	27.615	.000
	Lower-bound	631.560	1.000	631.560	27.615	.000
Error (Sit and Reach)	Sphericity Assumed	663.240	116	5.718		
	Greenhouse-Geisser	663.240	94.245	7.037		
	Huynh-Feldt	663.240	107.547	6.167		
	Lower-bound	663.240	29.000	22.870		

Table no.3 indicates the values of Repeated Measure One Way ANOVA of within Subjects. Which shows that the F value of assumed Sphericity was found to be 27.615 against the tabulated value of 2.44 which is significant at 0.05 level

Table-4: Post Hoc analysis of Sit & Reach Test for Pre test and Post Tests

(I) Sit & reach test	(J) Sit & reach test	Mean Difference (I-J)	Std. Error	Sig.
1	2	-1.867	0.728	0.158
	3	-3.167*	0.670	0.001
	4	-4.067*	0.741	0.000
	5	-6.100*	0.725	0.000
	3	-1.300	0.547	0.243

2	4	-2.200*	0.600	0.010
	5	-4.233*	0.632	0.000
3	4	-.900	0.435	0.476
	5	-2.933*	0.523	0.000
4	5	-2.033*	0.488	0.003

Table no.4 indicates the LSD values of the pre test and the post tests for sit and reach test, which shows that a significant difference was found between the pre test with the post test 2, post test 3 and post test 4 with a mean difference value of 3.167, 4.067 and 6.100 and between post test 1 with post test 3 and post test 4 with value of 2.200 and 4.233 and between post test 2 with post test 4 with value of 2.933 and between post test 3 with post 4 with value of 2.033 respectively at 0.05 level. The result shows there is significant difference was found b/w handball players in pre and post tests. The reason behind that was the subjects were regularly involved in the physical training for a long time. The other reason for significant difference may be the interest and curiosity on the behalf of the subjects about performing the asanas. Hence it is evident from the result that the asanas training have significant effect on flexibility of wicket keepers. So the researcher could conclude that there may be a positive result in the performance of the players by improving the flexibility.

VI. CONCLUSIONS

- Significance difference was found between pretest with 2nd week post test, 4th week post test, 6th week post test, and 8th week post test.
- The result showed the importance of the asana for wicket keepers in cricket.

- The training improved the flexibility.
- A significant difference was found among the mean values of the pre test and the respective post tests.

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